Negotiating community and knowledge in asynchronous online discussions in higher education

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A thesis submitted in fulfilment

of the requirements for a

Doctor of Philosophy

Faculty of Arts and Social Sciences

University of Technology, Sydney

February 2013

CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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ACKNOWLEDGEMENTS

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ABSTRACT

This thesis examines the enactment of teaching and learning in asynchronous online discussions in a postgraduate context. Specifically, it explores and seeks to explain the disjunct between the pedagogical promise of such discussions, founded on the collaborative construction of knowledge within supportive and democratised online communities, and the experience of teaching and learning through them, reported both in the research context and in published research. This experience often includes concern that students are failing to reach higher levels of knowledge construction, uncertainty on the part of moderators concerning their role and feelings of discomfort, disengagement and inadequate interaction on the part of students. The aim of the study is to provide a detailed account of this new and still evolving genre, rendering it transparent and able to be modelled and scaffolded pedagogically.

The data for the study are the online discussion posts as captured by the learning management system, supplemented by survey responses. The approach taken is discourse analytical, informed by a social theory of language, namely Systemic Functional Linguistics (SFL). The core of the analysis is a detailed study of the discourse semantics of interpersonal meaning drawing on the system of APPRAISAL (Martin & White 2005), with some reference to INVOLVEMENT and NEGOTIATION.

The negotiation of interpersonal meaning, studied within the context of community formation and maintenance, is profoundly influenced by mode features (written but dialogic, public, visible, persistent). Moderators' linguistic choices commonly include incongruent instructions, reduced commitment of meaning, implicit feedback and a tendency to expand rather than contract space for other voices and meanings. This serves to reduce status differentials and support a sense of community but potentially impacts on the negotiation of ideational meaning. Similarly low-key was students' relationship to the knowledge they brought into the discussion, particularly seen in the absence of standard forms of engagement in favour of narrative approaches and a tendency to open discursive space for others. Interaction with peers was likewise low-key for the most part, with little challenge and argumentation. Interestingly, students showed an individualistic concern with their own actions and postings, foregrounding their mental processes and personalising their approach to knowledge. Again attention to interpersonal relations appears to undermine to a certain extent ideational meaning-making. Addressing structural questions, a curriculum macrogenre was proposed and the presence of whole or fragmented written academic genres embedded in a quasi-conversational matrix identified. The pedagogical implications of these findings are discussed.

Chapter 1 Introduction

The context for this study is the widespread and rapid uptake of various forms of computer and internet mediated teaching and learning in higher education. Motivations ascribed to tertiary institutions for taking this path are complex. They range from the purely fiscal to a desire to keep pace with the penetration of information and communications technologies (ICTs) into most aspects of society. They encompass desires to transform learning and teaching, to provide flexibility of access for time-poor students and to increase the reach of programs, both locally and internationally. ICT-mediated learning enables fully distance programs, exists side by side with face to face teaching in blended modes and can be used to support a fully face-to-face program.

E-learning has been described as 'a manifestation … of much wider social and technological changes that are affecting all sectors of Western society in the globalized conditions of our times' (Goodfellow, 2007, p. 29). Focusing just on the higher education sector, it is generally acknowledged that universities are in a period of transition. Change is driven by the demands of the 'knowledge society' and the need for lifelong learning (Schrire, 2006), 'increased student mobility and choice' (students as clients) and the 'merging of work and learning' (Franklin & Peat, 2001, p. 37). This leads in turn to an increasing representation of vocational and professional subjects in universities and to modularization and interdisciplinary study (Lea, 2007), both of which challenge disciplinary traditions (Ellis & Goodyear, 2010, p. 3). The sector is increasingly market-driven, giving rise to the so-called 'commodification of higher education' (Lea, 2007) in the 'knowledge economy'. The increasing number and diversity (in age, aspiration and aptitude) of students, including those from 'non-traditional' backgrounds, is putting pressure on institutions at the same time as they see their revenues shrink and global competition for staff increase (Ellis & Goodyear, 2010, p. 1). Online program 'delivery' is one of many responses to these pressures.

The project of developing and optimizing online learning has received considerable institutional and governmental support (Lea, 2007), for example from the European Union and the UK Economic and Social Research Council. In the Australian context, most tertiary institutions have, over the last twenty years, shifted from a purely face to face environment to online or blended environments or a mix of these (Goold, Coldwell & Craig, 2010). In 2011, across all Australian higher education providers, 154,381 students (12.6% of the total) were studying externally (an increase of 5.5% over 2010) and 88,796 were enrolled in multi-modal

courses (7.3% of the total, an increase of 8.4% over the same period) (Department of Education, Employment and workplace Relations, 2011). Large-scale initiatives have seen both solid successes (for example the Open University and possibly the University of Phoenix) and notable failures (the UK e-University), with developments at the institutional level perhaps less observable.

This study, however, is not so much concerned with political and institutional rationales as with the experience of teaching on, and learning through, online courses. Nor is it as much concerned with online learning in general as with a specific learning activity, namely asynchronous online discussions of the kind embedded in many online courses. Often informed by constructivist learning paradigms, these discussions are seen to add a vital element of interactivity (understood as between humans rather than between human and computer) and communication to what might otherwise be perceived as passive, machine-driven learning. Anytime, anywhere access is provided as well as an opportunity for reflection and the genuine exchange of ideas between participants.

1.1 Background and terminology

Online learning is a fairly recent phenomenon. Its antecedents include distance education, educational technology (such as language laboratories and educational television) in the latter half of the twentieth century and the use of 'teaching machines' (drill and practice, adaptive systems) from the 1920s onwards. The latter role was taken over by mainframe computers from the 1960s, then from 1975 by personal computers. The early 1970s saw the first use of both email and computer conferencing and 1979 the first newsgroups. By the late 1980s, large scale online courses and the large-scale use of computer conferencing in distance education had been established (Harasim, 2000). The launch of the World Wide Web and browsers in the mid-1990s greatly facilitated access to, and increased the reliability of, computer-mediated learning. The delivery of resources, direct instruction through human-computer interaction and computer-mediated communication of various types are now commonly combined and coordinated by Learning Management Systems such as Blackboard or open-source software such as Moodle. Concerning modes of learning, d*istance education* involves students who are physically distant from the institution at which they are studying; their study mode may involve multiple resource types and/or technologies. *Online learning* refers to internet - or intranet – mediated learning, which can involve students in interaction with online resources as well as tutors and each other; students may be studying at a distance or may be campus-

based. *Computer-mediated communication* is a general term which refers to all types of interaction enabled by internet and computer technologies. The specific sub-type which forms the focus of this study is *asynchronous threaded online discussions* used for teaching and learning rather than purely social purposes.

Asynchronous online discussions are internet-mediated interactions involving students and, usually, teachers. 'Asynchronous' refers to the fact that participants in the discussion do not need to be 'present' online at the same time, as opposed to 'synchronous' discussions such as text chat which require simultaneous presence. Participants are not restricted by geographical location. I will use the term *asynchronous online discussion* throughout as it describes the activity most accurately. Such discussions may also be referred to by practitioners and researchers as *computer-mediated conferencing (CMC), conferences*, *discussion boards* and/or *bulletin boards* or more broadly *asynchronous learning networks* or *computer-supported collaborative learning (CSCL)*. The term *Bulletin board* is sometimes used, although it implies a passive space where (written) notices are posted.

Student and tutor contributions may be referred to as *posts* or *postings* interchangeably, or alternatively as *messages*. Once an initial post is made, consecutive replies build up a *thread,* hence the term *threaded discussions.* Discussion posts are visible to all participants in the course, although the course itself may be password-protected. It is a many-to-many mode in which messages, once posted, remain unchanged for subsequent reading and reply. In many (but not all) educational contexts such discussions are guided on an ongoing basis by an online teacher, lecturer or tutor. I have chosen to use the term *moderator* (e.g. Salmon, 2004) to capture the different (ie non-transmission) modus operandi suggested for online discussions; the term *facilitator* is also commonly used. I use the phrases 'learning and teaching' and 'teaching and learning' interchangeably as I wish to align myself with neither transmission modes nor learner-centred teaching philosophies.

1.2 Responses to online learning in higher education

The introduction of online learning saw a groundswell of published literature which was strongly (and perhaps not unexpectedly) polarized concerning the benefits of this mode and the desirability of introducing it.

The utopian approach tended to suggest that the World Wide Web 'allowed new pedagogical models to emerge' (as if by a natural process), facilitated 'new principles of learning' and 'new learning processes and outcomes' (Harasim, 2000), and brought about a paradigm shift in, and

a transformation of, learning. It also rehearsed pragmatic and pedagogical arguments, including time and place independence, group communication and collaboration (often leading, interestingly, to convergence of views), access to information, repeatability and customizability. Although learning is determined to some extent by the means of its delivery, technological or otherwise, these views showed an excess of technological determinism. It would also be interesting to critically evaluate the extent to which this enthusiasm was fostered by vested interests, not least software vendors (Goodyear, 2005). However, this falls outside the scope of this study. These utopian views were very influential in their time, as they were held by respected academics and apparently supported by evidence, although there is reason to question the research methodologies employed (as I do in Chapter 2). In fact, these views may have amounted to no more than good practice statements uninformed by empirical evidence (Doherty, 2006), enthusiastic but possibly misleading. Over time they have come to be questioned.

Dystopian views largely focused on the alleged cost-cutting motivations for introducing online learning, the reduced role for and status of academics, the questionable quality of (dis-embodied) online learning, the 'digital divide' and workload and student satisfaction issues (eg the highly personal and perhaps un-nuanced approach in Brabazon (2002)). There were of course more moderate approaches, represented by Laurilliard (2002), who came to see merit in online discussions as an ongoing 'conversation' between teacher and taught, another influential concept.

It appears that the passing of time has brought with it general acceptance that e-learning will form part of most students' university experience, that technological determinism should be avoided and that a more productive approach is to undertake detailed research into online teaching and learning representing a range of media, disciplines, educational contexts and pedagogical approaches to achieve a nuanced understanding of online learning and teaching effectiveness.

1.3 Asynchronous discussions within online courses

Within online learning there has been an increasing uptake of conferencing, or asynchronous online discussions (Coffin & Hewings, 2005). Although responses in academia to online learning *in general* were somewhat ambivalent, in the early stages of implementation there was a groundswell of enthusiastic support for online discussions, a wealth of apparently positive research findings and guidance from seemingly knowledgeable practitioners.

The increasing use of asynchronous online discussions in tertiary contexts has been facilitated not only by the affordances of the technology, which has enabled and increasingly normalised computer-mediated interpersonal interaction, but also by a shift in pedagogical theorising. This included a tendency to stress the social *construction* of knowledge rather than (or in addition to) individual cognitive development. *Collaboration* is presented as a central tenet: 'engagement in a collaborative learning process forms the foundation of a learning community' (Jonassen, Davidson, Collins, Campbell & Haag (1995), p. 33); 'collaborative learning processes help students to achieve deeper levels of knowledge generation through the creation of shared goals, shared exploration and a shared process of meaning-making' (Palloff & Pratt, 2001, p. 32) and 'is shaped into critical and reflective discourse' (Garrison, 2006, p. 26). Online learning *communities* are commonly described as (potentially at least) offering social and/or emotional support (e.g. Goodyear, 2002, p. 51) as well as facilitating learning; they have been associated with improved student retention and increased flow of information and learning (Rovai 2002a, 2002b). I discuss in detail the two main models of online pedagogical communities, the *Community of Inquiry* and the *Community of Practice,* in Chapter 2. Finally, the role of the online tutor or 'moderator' has been much debated, with most (but not all) commentators recommending a less-involved, guiding or facilitating rather than a knowledge transmission approach, without perhaps taking into account whether this would match student expectations.

However, over time and with the expansion of online discussions to a wider range of disciplinary contexts, this positive assessment came to be questioned. Less favourable reports started to emerge, for example of academics and students being ill-prepared for this type of teaching and learning and of students, expecting to be taught by academics, resenting peer learning (e.g. Palloff & Pratt, 2001), of students failing to reach the predicted higher levels of knowledge construction (e.g. Moore & Marra, 2005) and even of strong negative reactions (e.g. Ellis, Goodyear, Prosser & O'Hara, 2006, Hara & Kling, 2002) or at best a failure to engage. In addition, claims that we are currently educating a generation of 'digital natives' with high levels of (applicable) technical skills and a radically different learning style who demand technology-based learning are proving to be not 'empirically and theoretically informed' (Bennett, Maton & Kervin, 2008, Educating the Net Generation, 2009). In short, while online discussions are 'particularly effective in developing students' ability to argue', 'claims about the benefits of electronic conferencing nevertheless remain contentious' (Coffin, Painter & Hewings, 2005a). In fact, the widespread adoption of ICT in higher education 'has failed to

produce the radical changes in learning and teaching' that 'many anticipated' (Kirkup & Kirkwood, 2005, p. 185). Negative user experiences of the online environment and the learning that occurs within it are significant issues in the tertiary (and other) sectors. These potentially impact on academics coordinating programs of study, moderators of online discussions and student participants themselves, as well as institutions and faculties that have invested heavily in online learning infrastructure. This is one of the motivations for the present study.

While we might expect research to provide insights into improving the experience of interacting, and learning through interaction, in online discussions, there is much about undertaking such research which is not well understood (Mazur, 2004, p. 1082). The issue is not so much a lack of research as questions surrounding the adequacy and commensurability of research methods (Nicholls, 2009, p. 16). Early research into online discussions was dominated by quantitative methodologies, joined soon after by survey-style and self-report approaches. A selection bias saw the disciplinary fields of education and IT over-represented in early research, with a broader range of disciplinary fields represented in more recent studies. There is a dearth of studies of the *interaction* itself; where these have been undertaken it was usually on the basis of pre-determined coding schemes, informed by specific a priori pedagogical and other preconceptions. I am not persuaded that these studies provide enough detail to allow for an in-depth understanding of what transpires in online discussions and critically evaluate this research tradition in Chapter 2.

1.4 The research problem

The experiences outlined above resonate with my professional experience of a disjunct between expectations and experience, leading to a level of (but by no means universal) dissatisfaction with asynchronous online discussions, on the part of both students and moderators. Replicating the research findings noted above, this dissatisfaction centred on a perceived lack of 'interaction' and 'learning' through participation in such discussions, perceptions which varied between individuals and courses. I wanted to know why participants (who must surely be using email, texting and other electronic means of keeping in touch) felt they weren't really interacting online and why they felt uncomfortable in that context. I also wanted to know why some of them felt they weren't learning and why discussions based on constructivist and adult learning principles of learner autonomy and distributed cognition attracted comments about the lack of a 'correct answer' as well as about the comparative absence of the 'teacher' from the discussion.

There are of course many approaches to understanding and researching these questions – from the cognitive and psychological to the ethnographic and phenomenological. However, these discussions can – in fact should- be viewed primarily as discourse and as texts, given that interaction consists solely in the texts and is experienced textually by participants. As an educational linguist and teacher, I am inclined to view all spoken and written texts and interactions as representing genres, recognisable 'recurring linguistic configurations of meaning ' (Martin & Rose 2008, p. 9) which accomplish specific social purposes within the culture in which they occur (Coffin, 2006, p. 28). I observed that online discussions are a new (and evolving) genre and felt that participants' unfamiliarity with its features (for example how formal or informal contributions should be) could be one of the reasons for their discomfort and dissatisfaction. It also appeared to me that, apart from descriptions of its 'mixed' or 'hybrid' spoken and written nature, this new genre had not yet been fully documented. A description of a genre is an essential first step to modeling and teaching it. One task then would be to account for the genre (or as it turns out, macro-genre) of these texts, both their overall structure (with a technical, formal component) and the detail of language choices made in interaction.

 Next, given the emphasis on collaboration and community in the pedagogical rationales for these discussions, it seemed appropriate to tease out exactly how these terms were understood and documented in the theoretical and research literature. Moreover it seemed imperative to interrogate the linguistic data to find out if, and how, these concepts were realised in the interaction. The same also applies to knowledge 'construction' – how it is to be understood from a theoretical viewpoint, what the research findings tell us about its enactment in online discourse and how it is realised in practice in online interaction.

Reflection on these matters led to further questions. These concern the moderator's ambiguous role description in the theoretical literature and the way practitioners enact this in practice; the supposed 'democratisation' and flattening of power differentials in these discussions (and their implications) and the relationship of individual identity to community solidarity, enacted online. I also needed to take into account possible factors differentiating my case study discussions from each other (and indeed those previously researched and described). These range from a specific disciplinary and pedagogical context in which online discourse has not been much studied to variables of student and moderator characteristics, task design, topic focus and even whether courses were compulsory or optional. Finally, when I considered the uneasy juxtaposition of cooperative learning in a supportive community with

the assessment of contributions, I was compelled to ask whether there might not be other internal tensions which might contribute to the perception (or reality) that online discussions did not realize the potential ascribed to them.

1.5 Characteristics of asynchronous online discussions

As noted above, online discussion genres have not been fully documented. However, their spoken/written 'hybridity' and the features which distinguish them from other forms of asynchronous communication have been described.

The spoken/ written ambiguity is reflected both in the ways in which these discussions are understood by participants and in the texts they produce. A text-driven online exchange between two or more parties is often *conceived of* as a conversation, despite its mode. Synchronous computer-based text communication is called 'chat', although it is referred to as 'messaging' or 'texting' where mobile devices are used. Participants often *refer to* oral modes during asynchronous discussions; for example in the present study, moderators (and occasionally students) sign off with formulations such as: 'Speak soon' and 'I look forward to talking again …'. So by virtue of nomenclature, perception and text features, these text-based online discussions can be regarded as occupying a middle ground between, and embodying some of the features of, written and spoken language.

Types of asynchronous online communication can be differentiated with respect to features such as visibility, stability, authorship, audience and timing, amongst others. Asynchronous online discussions are visible to all who can access the password-protected site on which they are housed, unlike, for example, reflective journals which may not be visible other students. Posts, once made, generally remain unaltered and available until the course ends, unlike wikis which change with each iteration or chat logs which may disappear unless deliberately archived. Discussions are collaboratively constructed by all participants in an ongoing fashion, with all contributions technically equal, whereas for example blogs are usually individually created (primary authorship) with comments from others. The audience for online postings is all other participants (a multilogue), contrasting with assignments where the audience is typically only the marker. Unlike real-time chat, asynchronous online discussions do not require all participants to be present at once, although the latter are less dynamic and more attenuated as a result. Finally, the mode is often described as a 'lean' medium precluding most non-text semiotic cues such as intonation, facial expression and gesture (emoticons are an attempt to compensate for these) (eg Spitzberg, 2006, p. 635).

The descriptions above refer only to the *format* of the activity; an online discussion may of course be used for a variety of purposes and informed by a variety of pedagogies. For example, the term CSCL (Computer-supported collaborative learning) is often used in the Western European context and implies that the content-focused learning activities are designed to be completed collaboratively (rather than cooperatively); on the other hand, such discussions may be designed for social interaction only. Online discussions may be assessed or not assessed and may be conceived of as completely free-standing, or implicitly or explicitly intended to inform the writing of subsequent assignments.

1.6 Institutional and disciplinary context

This study was conducted at an Australian university, in which online provision is seen as complementing, rather than replacing, face to face teaching. In this institution, the Learning Management System is centrally supported but the design and maintenance of unit of study web sites by and large occurs locally, in faculties and schools.

The case study discussions are embedded in postgraduate courses in the disciplinary field of public health. Public health is focused on improving the health of populations rather than individuals, although clinical aspects form part of the picture. Activity in public health usually centres on an issue or a problem with an actual or potential health impact. This might be an infectious disease such as malaria or TB, a 'lifestyle' disease such as diabetes or cardiovascular disease, an environmental issue such as indoor air quality or the health-limiting actions of multinationals such as the purveyors of cigarettes and fast food. Objective measures exist for the severity of a problem in terms of life years lost and statistical and epidemiological methods are used to measure the scope of the problem.

The first step when a public health issue is suspected or presents itself is to investigate it using a range of quantitative and qualitative procedures. If appropriate, an intervention will be undertaken, for example vaccinations and isolation of affected individuals in an epidemic, a health promotion campaign encouraging more physical activity, building redesign to improve indoor air quality or advocacy to change the laws concerning food labelling. The intervention may be accompanied by a public communication initiative, for example to limit individuals' exposure to disease-causing organisms by hand-washing or avoiding mosquito bites. Finally, the efficacy of the intervention is evaluated. Published research in public health encompasses the issue, investigative methods, interventions, results and their evaluation.

The courses from which the case study discussions were sourced form part of a suite of postgraduate courses at Certificate, Diploma and Masters level focusing on different aspects of public health, undertaken both part- and full-time by local and international students. Students range from recent graduates to working health professionals to those looking to move into the public health workforce, varying in age from their early twenties to their fifties. They have backgrounds in a range of clinical, health-related and non-health-related disciplines and may be completing an entire degree or just one or two units of study. Over the past seven or eight years, units of study in these programs have increasingly been offered online, to the point where many of these degrees can be completed in fully distance mode. However, the most common pattern is for students to combine face to face with online study to suit their needs, preferences and elective choices, in this way enjoying maximum flexibility. Orientation to, and technical support for, online study are provided locally as part of student support provision, although students may also access university-wide technical support.

The discussions which form the basis of this research are taken from three separate units of study. **Case 1** (Infectious disease) is from an elective (ie non-compulsory) unit, undertaken fully online, revolving around the control of infectious disease. All discussions are based on an infectious disease scenario for which details progressively become available, much as would occur in a real outbreak investigation. The cohort was divided into three groups which either had different moderators (Groups 1 and 2), or retained the same moderator throughout (Group 3). **Case 2** (Obesity) is from a compulsory blended core unit, undertaken both face to face (the workshop) and online (the discussions), which addresses socio-cultural determinants of health. The discussions are readings-based and focus on factors leading to obesity, for example age and gender; moderators were constant throughout. **Case 3** (Tobacco control) is from a blended elective unit focused on reducing the harms caused by exposure to smoking; the discussion was scenario-based and concerned the use of smokeless tobacco as a harm minimisation strategy. The discussion group consisted of the entire cohort and the discussion was moderated by two experts in the field. Face to face attendance for Cases 2 and 3 consisted of an intensive workshop that preceded the online discussions. For further information about the units and the cohorts undertaking them please refer to Appendices 1.1, 1.2 and 1.3.

1.7 About this study

To recap briefly, my interest in researching this topic stems from my long-term involvement (nearly fifteen years) in various forms of computer- and internet-mediated learning in diverse

educational contexts, including adult, vocational and university. It also stems from my research interest in educational linguistics as a way of understanding, explicating and improving pedagogical discourse (see Lander, 1994, Lander & Reid, 2008). The specific stimulus was the realization in my professional context, mirrored by some of the research findings described in Chapter 2, that asynchronous online discussions were not living up to their promise, that both lecturers and students were experiencing dissatisfaction with this mode of learning and that existing research methods did not provide the necessary level of detail about the interaction itself. This study involves primarily a fine-grained linguistic analysis of the online interaction itself, supplemented by surveys of students and moderators and observation of the discussions as they unfolded, soon overtaken by the far more detailed analysis possible in retrospect, using the transcripts. I have some familiarity with the research context, and would describe myself as a participant-observer, although I did not take an *active* role in any aspect of the discussions or units of study.

The main aim of the study then is to analyse the interaction in detail, with several purposes in mind:

- to arrive at a genre description, as a starting point for further research and for teaching purposes
- to describe how the pedagogical rationales noted above (the existence and functioning of a community of some kind amongst participants, collaboration / cooperation, 'democratisation' and the construction of knowledge), play out in practice and how they interrelate.
- to discover how participants make sense of (and in fact create) this new and emerging academic genre and the implications of this for considerations of equity
- to account, if possible, for variability between individuals, groups and discussions

My analysis aims to avoid the pitfalls of interaction analyses reliant on an ever-expanding set of pre-designed coding schemes which inevitably bring with them pedagogical assumptions (what *should* happen). I am interested in using a pedagogically neutral analytical tool to show what *does* happen. In light of my reservations about coding schemes, and given that the discussions are created as a visible text in a rhetorical space, I take a discourse analytic approach. Discourse analysis may be undertaken without an underlying theory of language but I have chosen to use Systemic Functional Linguistics (SFL) as an informing theory of language and tool of analysis to provide rigour and reduce subjectivity as far as possible. I justify and explain these choices in detail in Chapter 3.

The discourse analysis, as noted, is supplemented by student survey data of two types: quantitative data concerning user characteristics and measures of satisfaction with various features of the course, recorded on Likert scales, and qualitative data, free text answers to open-ended questions. The survey data help characterise the cohorts and provide corroborating evidence for discourse analytical insights, providing a rich description of the interaction.

I deliberately exclude certain topics from this study. I restrict my discussion to learning through asynchronous online discourse, excluding other learning technologies and modes. With the advent of Web 2.0, educators are turning to social media outside learning management systems, for example Second Life, Twitter and Facebook, although it is unclear whether students welcome their use for educational purposes (Educating the Net Generation, 2009). I do not intend to discuss here the use of such media. However I believe that a detailed analysis of underlying pedagogical assumptions and a fine-grained analysis of how these play out in reality, similar to that undertaken in this study, are needed for each of these media, rather than uncritical and over-enthusiastic uptake. Further, it falls outside the scope of this thesis to undertake a philosophical enquiry into the nature of knowledge or to canvass the range of theories and positions, historical and contemporary, on what constitutes learning and how education should be effected. Instead I work within a broadly social constructivist view of education. My aim is not to compare, evaluate or critique theories of education but to view learning predominantly through the lens of discourse analysis and to show how the relevant educational theories play out in my online data.

1.8 Research questions

The study is designed to answer the following general question:

> *How are learning and teaching enacted in asynchronous online discussions in the context of post-graduate public health education?*

In addressing this general question I take the position that learning and teaching needs to be understood in terms of its discursive and interactive construction by participants in the online environment as well as in terms of participants' experiences and perspectives. In other words the research design needs to focus on analysis of online discourse as well as paying attention to how online discussions are understood and experienced by participants. The multiple dimensions are addressed in a series of more specific research questions, namely:

- *What pedagogic rationales are provided for asynchronous online discussion as a learning tool?*
- *How do the affordances and constraints of the mode influence discussion structure and interaction?*
- *What relationships exist between the communal nature of the interaction and the construction of knowledge?*
- *What kinds of knowledge and knowers are discursively constructed in these online discussions?*
- *How does the participation of the discussion moderator function in the construction of knowledge in the online environment?*
- *How are the online discussions understood and evaluated by participants?*
- *What relationships are evident between the pedagogic rationales, the experiences of participants and the kinds of knowledge constructed in the discussions?*

1.9 Structure of this study

In broad outline, this study begins with an analysis of the structure of online discussions, then moves to considerations of the role of communality and individuality in the construction of knowledge to return in the final chapter to considerations of structure in the sense of genre. Chapter 2 outlines the pedagogical and research context, highlighting the pedagogical rationales underlying this form of learning and the complexities of researching it. In Chapter 3 I justify my choice of linguistically-informed discourse analysis as a research methodology and outline the tools I will be using. The structure of online discussions, viewed from a technical, interactional and textual basis, is addressed in Chapter 4, which partially answers the question of the influence of the medium's affordances and constraints on learning. Chapter 5 focuses on the building and maintenance of communities of learners and teases out the impact of community building and maintenance on the construction of knowledge by students. In Chapter 6 the emphasis shifts to students' agency in building an affiliative Community of Practice, while in the latter part of Chapter 6 and in Chapter 7 I turn my attention to the role of the individual, both in terms of the discursive construction of identity and in terms of knowledge construction. I show how interpersonal concerns and knowledge construction sometimes support each other and are sometimes at odds. Chapter 7 ends with a return to questions of structure, specifically text structure in support of the development of academic knowledge and argumentation. Chapter 8 forms my conclusion, in which I draw the threads of my argument together and propose pedagogical implications as well as avenues for further research.

1.10 Contribution of this study

It is hoped that insights gained through this study will enable a better understanding of online discussion structure and genre characteristics and of the interaction of social and communal elements with knowledge construction. The aim is to inform strategies to improve task design, moderation practices and student orientation to online learning in postgraduate coursework settings. This research has the potential to benefit educational designers incorporating asynchronous online discussions into courses in higher education, academics moderating online discussions and students who participate in such discussions. It is hoped that the research will also contribute models of research design and the use of analytical tools that will have relevance to the academic e-learning community more generally.

Chapter 2 Pedagogical and research context

Asynchronous online discussions represent a convergence of new technologies with forms of pedagogical theorising which might be called social, constructivist and collaborative. This type of learning, group oriented rather than individual, had already found a place in higher education, workplace training and other educational contexts before the rise of e-learning. Although online learning can take many forms, it was asynchronous online discussions, based on earlier models of email lists, which seemed to offer the best 'fit' with these pedagogical constructs and there was considerable support for the implementation of such discussions in a range of educational contexts. However, as noted in Chapter 1, their pedagogical promise, as well as individual expectations, is often not fulfilled. This suggests a need for comprehensive research into the enactment of learning and teaching in this online mode.

A first step, then, is to turn to the body of existing research into the field of online learning, the contexts in which it was carried out and the pedagogical rationales upon which it is based. In this chapter I pay attention to the quality of research methods and of evidence and explore the extent to which findings are comparable and can be synthesised into meta-analyses. Also important is whether they enable pedagogical constructs to be reliably operationalised in order to guide practitioners.

This review of existing research begins with the pedagogical rationale for asynchronous online discussions, followed by a summary of research approaches (Section 2.2). I review findings *in general* in Section 2.3, then methods and findings related to *online learning communities* in Section 2.4 followed by methods and findings related to *knowledge construction* in Section 2.5. In Section 2.6 I problematise the use of coding schemes to analyse interaction, whether seen through the lens of community or knowledge construction. A summary of research to date (2.7) is followed by an overview of studies of online interaction as discourse (Section 2.8) and brief recap of my research approach (2.9).

2.1 Pedagogical rationales for online discussions

Constructivist and social constructivist learning theories and concepts of collaboration, cooperation and community have strongly influenced the pedagogical rationale for asynchronous online discussions (Le, 2005, p. 181; Nicholls, 2009, p. 22; Hammond, 2005, p. 9). Jonassen (e.g. Jonassen, Davidson, Collins, Campbell & Haag, 1995), an early and highly influential proponent of constructivism in computer-mediated learning, regards meaning as individually created by both 'internal' and 'social' negotiation (Jonassen et al, 1995, p. 12). He

proposes that teaching must concern itself with 'developing learning environments that engage learners' and encourage them to construct their own knowledge (p. 13). Such environments are said to be characterised by authentic contexts which emulate as nearly as possible the real world, construction of knowledge by 'articulation and reflection' within that context and ongoing collaboration between learners. Jonassen argues that collaboration is realised linguistically as conversation, the 'focus' of constructivist distance learning activities (pp. 13 - 14). Thus, discourse is central to the social, negotiated, consensual process of learning. Later theorists added detail, for example the need for ill-structured 'authentic and complex' problems replicating real life, rather than the simplified and abstracted tasks often found in educational contexts (Johnson, 2001, p. 47). However, as I show below, there is no real agreement among researchers as to the actual processes involved in collaborative knowledge construction.

The role of the 'teacher' has been reconfigured in pure constructivism, with 'control' being transferred to learners. Learners are expected to 'function as self-motivated, self-directed, interactive, collaborative participants in their learning experiences' (Tam, 2000, p. 1). Johnson argues that teachers should help students develop 'cognitive and metacognitive learning strategies' (2001, p. 47), as adult learning principles and constructivism suggest. However, not all theorists agreed with this 'backgrounding' teachers, with Anderson, Rourke, Garrison & Archer (2001) and Swan and Shih (2005), for example, envisaging a more proactive role for them.

Many proponents of constructivism drew on the work of Vygotsky, who was one of the first to foreground the role of language (amongst other forms of semiosis) and the use of tools in cognition and learning (e.g. Vygotskii, 1986, p. 83). Vygotsky's formulation of the Zone of Proximal Development (a measure of learning potential) as well as the theory of scaffolding derived from his work have influenced collaborative group processes in educational contexts and the concepts of distributed learning, learning communities and communities of practice.

Collaboration is a commonly invoked but diffuse tenet of online discussions. Conceptions of what might occur during 'collaboration' range from the purely social to the cognitive. According to Harasim, another influential early theorist, 'collaboration provides the social glue of a community that engages learners and motivates them to participate' leading to 'positive interdependence' (2000, p. 53). Numerous academic, social and psychological benefits are claimed for collaboration. Brook and Oliver (2003), for example, list increased motivation,

improved 'learning achievement' and greater satisfaction. According to Garrison, collaboration can be 'shaped into critical and reflective discourse' (2006, p. 26).

Another term in this constellation is community. Online learning communities are commonly described as (potentially at least) offering social and/or emotional support (e.g. Goodyear, 2002, p. 51) as well as facilitating learning. Brook and Oliver (2003) suggest that this is 'well-supported by theories of learning that highlight the role of social interaction in the construction of knowledge' (p. 139) but admit that a 'definitive definition of the term remains elusive' (p. 130). Rovai (2002a) believes virtual classrooms have a potential for building and sustaining community comparable to that of face-to- face classrooms. '(I)ncreased affective support' can be achieved by 'promoting a sense of community' (Rovai, 2002a, p. 320, similarly Shea, Frederickson, Pickett, Pelz & Swan, 2001). A strong sense of community has been associated with improved student retention and increased flow of information and learning (Rovai 2002a, 2002b).

Generalised, utopian views of the possibilities of online discussion are exemplified by Harasim (e.g. 2000) who claims that 'computer conferencing … remains the "heart and soul" of online education' (p. 51). Its attributes and their 'benefits', apart from the convenience of time and place independence, are said to include group communication (socio-affective benefits, learning from peers, comparing and modifying ideas), messaging which encourages 'verbalization and articulation of ideas', 'reduced socio-physical discrimination' and supported, scaffolded and customizable environments (Harasim, 2000, p. 50). These affordances are represented as realized in practice and unproblematic. In contrast, Brook and Oliver (2003, p. 31) suggest that the 'community construct' is widely accepted as a *sense* rather than a tangible entity.

The two main models proposed for pedagogical communities are the *Community of Inquiry* and the *Community of Practice*. The Community of Inquiry (COI) concept was formulated by Garrison and colleagues (e.g. 2006). Garrison describes the goal of creating a 'community of inquiry where students are fully engaged in collaboratively constructing meaningful and worthwhile knowledge' through reflection and discourse (2006, p. 25). He suggests that the COI comprises the three interrelated core elements of *social presence, cognitive presence* and *teaching presence* (p. 26) which lead to success in achieving 'deep and meaningful learning'. Social presence is said in turn to comprise *affective*, *cohesive* and *interactive* responses. Teaching presence consists of *design and administration*, *facilitating discourse* and *direct instruction.*

The concept of *communities of practice*, proposed by Wenger (eg 1998) as part of a broader conceptual framework of learning as social participation, has been very influential in professional and vocational education and practice. It draws on a range of antecedents, including theories of adult learning (eg Knowles, 1998) and constructivism (Johnson, 2001, p. 47). Members of a community of practice are described as having differing levels of knowledge and expertise, from novice or apprentice to expert; knowledge is distributed amongst members (Johnson, 2001, p. 45-6). It is argued that learning in a community of practice occurs by means of communication and collaboration, both from peer to peer and from expert to apprentice, accompanied by the negotiation of shared goals (e.g. Johnson, 2001, p. 50). Participants may legitimately participate at the periphery, and move from there to the centre as they progress from novice to expert status. The community of practice comprises not only social arrangements but also artefacts produced by the group, for example products, technology, media and processes (p. 51). Enculturation or learning 'to be' is considered central to communities of practice (e.g. Nichani & Hung, 2002). Learning within communities of practice is generally based on authentic tasks, in other words learning by doing, and authentic social and communication contexts (Johnson, 2001, p. 52; Hung & Chen, 2001, p. 23).

A caveat is needed here. I am not suggesting that all practitioners were aware of or influenced by these rationales, although such rationales represented a strong undercurrent in academic development in the current research context and many others. In any case, some of the features of these discussions, such as the formation of communities, are not necessarily dependent on deliberate moderator actions.

2.2 Approaches to researching asynchronous online discussions

Researchers of online discussions have found the task to be complex. Naidu and Järvelä (2006) suggest that the online mode compounds the 'problematic nature of investigating human learning'. This is reflected in the wide range of approaches and methods used and a lack of agreement on some quite fundamental matters such as terminology. As noted above, key issues when reviewing this research are the validity, comparability and transferability of findings. This review is limited to studies of asynchronous online discussion in higher education published in the past twenty years. This section and the following review research in general terms; in 2.4 and 2.4 I review research specifically related to online communities and the collaborative construction of knowledge.

2.2.1 Methods and approaches

Research into online learning was in some ways on shaky ground from the start, since there was (and is as yet) 'no established theory of electronic discourse' (Schrire, 2006, p. 53) nor an agreed methodology to research it. This has resulted in a plethora of quantitative and qualitative research approaches drawn from disciplines such as psychology, adult education, systems, media studies, critical literacy and sociology, with a general drift over time from quantitative to qualitative studies (Salmon, 2002, p. 197) and from single to multiple methods within the one study.

Given the lack of consensus on an appropriate methodology for researching online discussions, approaches vary considerably. Early studies tended to concentrate on the more easily quantifiable variables such as posting frequency and patterns (Schrire, 2005, pp 2-3), including computer modelling and visualisation (e.g. Jeong, 2003). Alternatively, they focused on participants' evaluation of conference success. Survey approaches were used, often combined with quantitative methods (e.g. Felix, 2001; Mazzolini & Maddison, 2003; Oliver & Shaw, 2003). More recent research shows two main methodological tendencies: to concentrate on cognitive and psychological factors or to base analysis on what might loosely be described as social factors. An example of the former category is cognitive processing research into computer-supported collaborative learning (De Wever, Valcke & van Winkel, 2003; Schellens & Valcke, 2004). The latter category is represented by, for example, personal accounts (e.g. Mann, 2004; Levy, 2006), interpretivist analyses (e.g. Sclater and Bolander, 2004) and phenomenographic studies (e.g. Ellis, Goodyear, Prosser & O'Hara, 2006; Roberts, 2004 on conceptions of teaching and learning online). Activity theory, action research (e.g. Salmon, 2002), grounded theory, longitudinal studies (recommended in Hopkins, Gibson, Sole, Savvides & Starkey, 2008) and even experimental approaches (e.g. Schellens &Valcke 2005) have been embraced. Researchers have come to realise that the complexity of the phenomenon calls for a mixed methods approach, facilitating comparison and corroboration of results (e.g. Hammond & Wiriyapinit, 2005).

There has been, generally speaking, a marked absence of empirical investigation into the *interaction itself* (Doherty, 2006, p. 64). Even when studies did focus on the interaction, approaches varied. Some researchers claimed to be undertaking *content analysis* of messages but it was not always clear what this meant (e.g. Oliver & Shaw (2003) apparently equate this with protocol-based conversation analysis). Much interaction analysis was characterized by the use of pre-existing coding schemes and fixed categories embodying specific a priori

pedagogical and ideological orientations. There have been few studies into the online interactions themselves as *discourse*, unhampered by coding schemes.

In view of the above, an alternative approach to researching online discussions is needed, one which addresses the *interaction* between participants and the discursive, collaborative construction of knowledge by them. My choice of a research methodology responds to this need, as noted in Chapter 1. As Koschmann et al (2005) state, 'learning is interactional and should be researched as such' (p. 282). Such interaction studies might be undertaken to 'understand the nature of … communication patterns in this medium, their conventions, form and functions, … the subtext … and how people derive meaning and understanding in such contexts' (Naidu & Järvelä, 2006). The small body of studies which employ a linguistically-based approach to online interaction includes Coffin, Hewings & North (2012) and its predecessor studies, Doherty (2006), Don (2007) and Piriyasilpa (2009). I discuss these in Section 2.8 below. I first consider general findings, findings related to communities of various kinds and those related to the 'construction' of knowledge.

2.3 Equivocal findings on effectiveness

A review of the research literature soon reveals that findings about the effectiveness of online discussions for facilitating learning have been equivocal. Although the majority of the 62 papers reviewed by Hammond (2005) concluded that asynchronous online discussion was *potentially* valuable or very valuable as a support for teaching, most were nonetheless 'measured' in their support for its use, highlighting the 'constraints on learners as well as the opportunities … offered' (p. 15). A core issue seems to be that, while their *potential* is widely recognised, the *implementation* of online discussion remains problematic (Oliver & Shaw, 2003, pp. 57-8) and claims about their effectiveness largely unsubstantiated, as noted by Coffin, Hewings & North (2006).

There are a number of possible explanations for this state of affairs. One might be that the widely publicised potential does not in fact exist, and that commentators have been seduced by the affordances of the technology into believing that the pedagogical benefits will follow. Another might be the shortcomings of research methods and instruments, leading to contradictory results or a failure to identify relevant factors. A third explanation could be the sheer range of variables impacting on discussion effectiveness and the difficulty of accounting for their possible mutual interaction. These variables include, for example, learner characteristics and expectations, learning activity design and facilitation, to name the most

obvious. An early large scale study Felix (2001) found largely positive responses to online discussions but felt this result may have been skewed by high quality program design. Similarly, student responses to online discussions may be influenced by their expectations. Ellis et al (2006) described students in a blended learning environment who failed to benefit from both face-to-face and online discussions, underlining the importance of concepts of, and approaches to, learning. Findings tended to show that affective features (for example a sense of community) were more commonly realised in discussions than cognitive components, where 'individualistic learning' rather than collaborative knowledge construction predominated (Ke, 2010, p. 814).

Some researchers reported emotional reactions. Ellis et al (2006), for example, unearthed unexpected affective responses such as reluctance to post, or to post early (p. 250) contrasting with very positive responses to the mode (p. 251). Strong negative responses were also reported by Hara & Kling (2002). They concluded that students experienced 'confusion, anxiety and frustration' (p. 80) when feedback was not prompt and when instructions were ambiguous, an issue their moderators seemed oblivious to. Sweeney, O'Donoghue & Whitehead (2004) reported generally positive results but noted that students felt the discussion board was 'formal' and 'disjointed' and expressed frustration at the lack of a model answer as part of feedback. Moderators also reported experiencing distress. Affective responses such as these have also been noted in the current research context.

It is evident that findings concerning the effectiveness of online discussions in general are inconclusive. There does appear to be consensus that their potential is often not realised, and that there are constraints on their successful implementation. In the following sections I critically evaluate the literature specifically related to two core pedagogical concepts underpinning asynchronous online discussions. These are community (Section 2.4) and the collaborative construction of knowledge, including critical thinking and argumentation (Section 2.5). The aim is to establish a framework for the analysis of community building and learning through online discourse undertaken in subsequent chapters.

2.4 Findings related to online communities

One of the claims made by theorists of online discussions is that they give rise to communities of various kinds. Research into these communities should answer questions such as: What is the evidence for the existence of an online community in a given context? What kinds of

communities exist? How are they created and who is responsible for their creation? What purpose do they serve? Answers to these questions would assist task design and moderation.

A plethora of general, positive community attributes has been advanced in the literature. However, from a more critical perspective, issues arise concerning terminology, contrivance and necessity. Thus in practice, questions such as those above are difficult to answer. Positive attributes proposed include a sense of belonging, connectedness, honesty, bonding and trust (Brook & Oliver, 2003; Rovai 2002a, 2002b). Also included are interaction and collaboration (Rovai 2002a, 2002b; Nichols, 2009). Yet there is no agreed definition of the term 'community'. Nichols (2009) concedes that the term is 'contestable' (p. 23). He also describes a community in pedagogical contexts as necessarily 'contrived' which 'naturally limits the extent to which [such communities] … can become a truly open community of learners' (2009, p. 24). There is debate in the literature as to the extent to which a sense of community can be intentionally built. Nicholls (2009) goes so far as to question whether a sense of community, while supportive, is *necessary* for learning to occur, and suggests that it is certainly not sufficient (p. 24).

The notion of community in online discussions is further differentiated, as noted above with respect to the pedagogical rationales for online learning. The two main models proposed are the Community of Inquiry (COI), relevant to all educational contexts, and the Community of Practice (COP), more commonly invoked in vocational and professional contexts. I first focus on research into the Community of Inquiry.

2.4.1 Researching Communities of Inquiry

The Community of Inquiry and its associated analytical instruments are described as the most common 'research tool' for 'measuring cognitive outcomes in asynchronous discourse' (Nicholls 2009, p. 20; cf Hughes, Ventura & Dando, 2007). In fact, Rourke & Kanuka (2009) identified 252 papers from 2000-2008 referencing the COI framework. The community of Inquiry is characterised, as noted earlier, by three types of 'presence', namely social, teaching and cognitive. I discuss findings related to social and teaching presence below, and cognitive presence in Section 2.5.

Social presence

Like community, social presence appears to have no generally accepted definition (Tu & McIsaac 2002, p. 132; Russo &Campbell, 2004, p. 230), although in the published studies of this phenomenon there is a constellation of imprecise descriptions (Irwin & Berge, 2006, p. 3).

These include the 'ability … to participate personally and authentically … to be perceived as salient and 'real' by others (Nichols, 2009, p. 20), the 'illusion of non-mediation' (Picciano, 2002, p. 24); a feeling of trust (e.g. Tu & McIsaac, 2002, p. 142), awareness of the other party and appreciation of an interpersonal relationship despite physical separation (Irwin & Berge, 2002, p.3). Contrasting with descriptions of online discussions as a 'lean' medium (e.g. Russo & Campbell, 2004; Spitzberg, 2006, p. 635), other commentators (e.g. Swan & Shih, 2005, p. 116; O'Sullivan, Hunt & Lippert, 2004) describe this medium's 'hyperpersonalness', meaning the ability of participants to project their personalities using text alone. Social presence needs to be distinguished from mere interaction, which is generally (but not exclusively) described in quantitative and formal terms (e.g. Russo & Campbell, 2004, p. 224); however the two are connected (Picciano, 2002, p. 22).

One body of research into social presence (e.g. Rourke, Anderson, Garrison & Archer, 2001; Swan & Shih, 2005; Reio & Crim, 2006) considers if and how it may be present in asynchronous discussions and theorises its correlation with learning. It is claimed that social presence resides both with 'teachers' (moderators, facilitators) and students. Research into the connection between social presence, interaction and learning is one area in which findings have been positive (see O'Sullivan et al, 2004 for a summary). As noted, some researchers point out that social presence is a *perception* on the part of participants rather than an objective and demonstrable characteristic of the medium or the interaction (Swan & Shih 2005: 116). Findings thus include a strong correlation between *perceived* social presence, interaction and *perceived* (rather than actual) performance (Swan & Shih, 2005, p. 117 also Picciano, 2002, p. 30). Also significant are positive impacts of 'immediacy' on affect, short-term recall and cognitive learning (Tu & McIsaac, 2002; Reio & Crim, 2006) and a significant effect on participant satisfaction with courses (Russo & Campbell, 2004; Reio & Crim, 2006; Swan & Shih, 2005, p. 116-7). Perceptions of social presence may vary over time and differ between participants in the same discussion, depending on participant characteristics such as cultural background, previous experience or 'psychological attitudes' (Tu & McIsaac, 2002, p.142). However, links between social presence and cognitive learning (objectively measured) have not been adequately researched (cf Jolivette, 2006, p. 537). In fact, *empirical* research into social presence is limited (Reio & Crim 2006, p. 968) and many studies are small-scale and rely largely on self-reporting (Reio & Crim, 2006). This suggests that findings need to be treated with caution.

Related to social presence is the concept of transactional presence, which is described not just as empathy but as a 'connection to others and their responsiveness' (Irwin & Berge, 2002, p. 3). Additionally, reference is made to 'psychological presence', having institutional, teaching and peer components (Shin, 2003).

Teaching presence

A second type of presence within Communities of Inquiry is that referred to as **Teaching presence.** It is described as

> 'the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes' (Anderson et al 2001: 5).

Anderson et al (2001, pp. 3-4) argue that teaching presence 'mediates' all learning and teaching resources used, and consists of three elements: *design and administration*, *facilitating discourse* and *direct instruction.* The descriptor 'teach*ing*' rather than 'teach*er*' acknowledges the students' role as they contribute knowledge and facilitate each other's learning, as predicated by the collaborative/ constructivist learning paradigm.

Teaching presence has proved just as difficult to measure as social presence (Anderson et al (2001: p. 4, Shea, Li & Pickett, 2006, p. 177). A wide range of potential impacting variables have been identified, including previous moderating experience, conceptions of teaching and level of instruction (undergraduate or postgraduate) (e.g. Goold, Coldwell & Craig, 2010). The concept suffers from some internal contradictions, particularly regarding the desirable extent of instructor presence. Researchers (e.g. Tam, 2000) who apply strict social constructivist criteria to discussions radically de-emphasise the role of the instructor while others envision a more proactive role (e.g. Anderson et al, 2001). This could be summarized as 'a tension between structure, dialogue and autonomy' (Kanuka, Collett & Caswell, 2002, p. 151). In other words, moderators balance the need to provide structure to aid learning with the desire to give learners autonomy, and the need to facilitate wide-ranging dialogue with the need to structure and constrain it so that it does not become unmanageable for participants. Ambiguities around teaching presence can also be viewed through the lens of *transactional distance*, which is reduced (ie participants feel closer to each other) with high levels of both structure and interactive dialogue; this distance is *increased* with greater learner autonomy, as in constructivist environments (Kanuka et al, 2002, p. 154).

There is some empirical support for a correlation between a strong and active instructor presence and students' sense of community and learning (e.g. Shea et al, 2006; Baker, 2004). This is sometimes described in terms of *teacher immediacy,* implying psychological closeness and verbal immediacy (Baker, 2004). Anderson et al (2001) argue that low levels of teaching presence lead to stalling at lower levels in the critical enquiry process and also impact on student satisfaction. The latter point was taken up by Mazzolini & Maddison (2003; 2007), who show that there is a negative correlation between moderator frequency of posting and student posting levels, but a positive correlation between greater moderator frequency and student satisfaction with the course and impression of the moderator's enthusiasm and expertise. However, the authors caution against regarding the sheer number of postings as a proxy measure of discussion quality. The importance of instructor presence to student perceptions is also noted by Swan &Shih (2005, p. 129) and Anderson et al (2001). This may mean that student satisfaction will be lower in purely constructivist environments which encourage greater learner autonomy. From the above, it would not be surprising if many moderators had difficulty reconciling the 'prescribed "best" online teaching principles and their practical application' (Lewis & Abdul-Hamid, 2006).

2.4.2 Nature of the evidence for the effectiveness of communities of inquiry

In order to judge claims about the existence and effectiveness of communities of enquiry and teaching and social presence we need to evaluate the nature of the evidence. Once again, there is a lack of clear agreement on descriptors or markers for communities which would allow them to be objectively documented, rather than existing as a 'sense' in the 'perceptions' of participants. I note that in some research paradigms (for example grounded theory) participant perceptions would suffice and could provide valuable insights. However I am interested in descriptors provided by researchers to aid design and moderation.

In tandem with their formulation of the COI construct, Anderson and colleagues developed research instruments to identify such communities and the 'presences' within them. These include descriptors of moderator behaviour and language, general and specific (cf Shea et al, 2006), to serve as the basis for analysis. For example, behaviours to support *facilitating discourse* include identifying areas of agreement and disagreement, seeking to reach consensus/understanding, encouraging, acknowledging or reinforcing student contributions, setting the climate for learning, drawing in participants, prompting discussion and assessing the efficacy of the (discussion) process. *Direct instruction* includes presenting content and questions, focusing and summarizing the discussion, confirming understanding, diagnosing

misconceptions, injecting knowledge from diverse sources and responding to technical concerns. The global moves listed are accompanied by sample texts, possibly authentic but of limited usefulness for analysis.

The same researchers propose a taxonomy of social presence indicators, namely affective, cohesive and interactive responses, with slightly more detailed linguistic realisations provided. It is worth describing these in some detail as I will compare these descriptors with my findings in Chapter 5. The researchers suggest that a*ffective responses* express feelings, emotions, mood, closeness, warmth, affiliation, attraction and openness. Suggested realizations are emoticons, humour and self-disclosure. Self-disclosure leads to trust and can be realized through personal examples and anecdotes, although others suggest that such self-presentations may be perceived as lacking complexity and depth (Baker, 2004). These suggested realisations are troubling, for several reasons. They don't cover all terms in the taxonomy – for example, exactly how are closeness, warmth, affiliation, attraction and openness to be realised and recognised? They are undifferentiated: how appropriate are personal examples and anecdotes in a highly academic discussion? Rourke et al (2001) reference Eggins & Slade (1997) regarding the importance of humour in casual conversation without apparently considering whether casual conversation (or any kind of conversation) is an appropriate model for the language used in online discussions or warning against the pitfalls of engaging in humour where paralinguistic cues and opportunities for immediate clarification and/or repair are absent.

Cohesive responses are said to build and maintain group commitment (Anderson et al 2001) and include phatics (which establish a mood of sociability rather than an exchange of information, e.g. enquiries about weather, health). Also included are salutations (greetings and closures); vocatives (naming, also Baker, 2004 and Shea et al, 2001, p. 19, who (surprisingly) recommend the use of nicknames) and inclusive pronouns, such as *we, our* or *us*. These are relevant and easily identifiable lexico-grammatical items and compatible with my approach. However I will show in Chapters 5 and 6 that a much wider range of realisations enact group cohesion and commitment in the discussions studied. *Interactive responses* involve continuing a thread, quoting another's words and referring explicitly to the content of others' postings. It also includes reinforcement e.g. praise, which results in enhanced self-esteem; complimenting, acknowledging, expressing appreciation and agreement and asking questions. While one of these is purely formal (continuing a thread), the remainder are amenable to linguistic analysis.

Some researchers have noted that social relations in a discussion might change over time, as the discussion progresses (e.g. Rourke et al, 2001). This occurs because greater familiarity leads to fewer superficial and formal social expressions than when weaker bonds existed at the beginning. Swan & Shih (2005) also support the notion of change over time, noting that in their (limited) sample, the incidence of cohesive indicators decreased, of interactive indicators increased and of affective indicators remained stable as the discussion progressed.

Guidelines are offered to moderators which are somewhat problematic in their application. According to Tu and McIsaac (2002), communication styles fostering social presence in communities should be *open, relaxed* and *attentive* yet they provide no guidance as to how this is to be achieved linguistically. Further, such communication styles should convey feelings and emotions (as above) and be stimulating, expressive, meaningful and easily understood (Tu & McIsaac 2002: 143). It should be easy enough to find evidence of emotions in online texts (but which emotions?), while meaningful language which is easily understood would presumably be the aim of a teacher in any medium. According to Picciano (2002), students should feel a sense of belonging; again there is no guidance on how this is to be achieved – perhaps by individualized responses from the moderator (Russo & Campbell 2004), although this might give rise to workload issues and an unwanted focus on the moderator. Shea et al (2001, p. 19) recommend a 'conversational' (non-academic) tone, ignoring contextual factors and the written/spoken ambiguity noted in Chapter 1.

Several commentators note that the moderator is responsible for *modelling* online behaviours and language. For example, Coffin and colleagues argue that the discussions they analysed showed that the moderator modelled language up to a point and was 'likely to have influenced the style of student postings' although there was 'little expert modelling of how to constructively challenge alternative views' (Coffin et al 2005a; 2005b).

In sum, it is clear from the description above that the collaborative construction of knowledge in a community (of learners, of inquiry) is a core element in the manifesto of constructivism, enthusiastically taken up by a range of researchers and practitioners of online discussion. It is also clear that the general concept of 'community' in online discussions has some support in the literature, particularly the value of positive interpersonal relationships in supporting learning. Some descriptors of the discursive construction of a community of learners are available in the published research, although they are sometimes vague, contradictory and difficult to operationalise. Not all of them are evidence-based or applicable to all contexts. As

Nichols points out, there is much which is still not clear about online communities and the meaning of the term itself continues to be debated (2009: 23; also Swan & Shih, 2005).

2.4.3 Researching Communities of Practice

The second main model proposed for online communities is Communities of Practice (COPs). These exist in workplaces or educational contexts and may be embodied or virtual, as noted. The concept has been taken up 'most enthusiastically' in online contexts (Lea 2005: 181) and in higher education. As Goodyear points out (2002, p. 56), 'ideas about cognitive apprenticeship, situated learning and communities of practice have done much to revitalize thinking about learning in universities and elsewhere' to help overcome and counter the 'individualistic excesses of information-processing cognitive psychology', as well as reflecting the shift in Universities' mission to be more professionally- and workplace-oriented . The use of the concept of COPs 'has now become ubiquitous in the literature of teaching and learning in higher education', being used most often as a top-down model and 'design aid for the formation of online communities' (Lea, 2009, p. 196). Zenios, Banks & Moon (2004) describe computer-mediated conferences supporting pre-service teacher education as 'conducive to the emergence and production of online communities' (p.145) for reasons including the negotiation of subject knowledge between a range of subject domain experts, the sharing of goals and specialized languages, shared interests and the 'imagining' and creation of a professional identity. However, the conclusion is guarded: '*some* characteristics of a community of practice … *can possibly* be replicated within conferences … within the context of networked professional development' (p. 147, emphasis added). There is an obvious parallel here with the present study, in the development (or reinforcement) of a professional identity. While face-to-face communities of practice may be self-directed and not require guidance or facilitation, virtual communities of practice may require 'extensive scaffolding' (Johnson, 2001, p. 53), although doubts remain whether these can be successful if participants have never met in person (Nichani & Hung, 2002).

Online discussions are put to a wide variety of uses in higher education, and it is these specific uses that will resonate (or not) with the community of practice concept. Depending on context, tasks can be authentic and can support the development of a professional identity ('learning to be'), as well as providing practical advice and support, for example during professional placements. Online, the artefacts produced by participants come to include the record of the interaction. Social relationships may not replicate but may resemble those in a workplace, with peers working together and obtaining advice from an expert as needed.

However, in some respects the model does not quite ring true for the present context. Although the mission of higher education includes preparing students for professional employment, the fact remains that they are embedded in an academic learning and teaching rather than a workplace environment. They are participating in a designed virtual community for educational purposes undertaking tasks which, while being relevant to the discipline, may not be authentic workplace tasks. In learning institutions, tasks are often simplified and abstracted (Johnson, 2001, p. 52), a pedagogic 'recontextualisation' (Bernstein, 2000). This holds true even if there is an attempt to create an authentic task, for example a simulation or scenario-based activity, in which students 'imaginatively enter' the world of their profession (Barton & Hamilton, 2005, p. 31). Ironically, communities of practice are predicated on authentic contexts yet where such communities are ICT-enabled, the context and the tasks are abstracted from the authentic context (with some highly specific exceptions e.g. studies in IT). Goals may be negotiated in more progessivist forms of virtual community but in many cases these are predetermined by syllabi and assessment. The extent to which a community of practice in a higher education context will resemble the ideal proposed by Wenger is debatable and depends on how authentic the task is and the extent of social interdependence, trust and safety which develops.

Another concern with the model is the role played by language. Social roles negotiated in communities of practice are largely, and in online contexts exclusively, textually mediated. As Barton and Hamilton (2005, p. 14) and Tusting (2005) argue, theorists of such communities have paid insufficient attention to issues of language and power. Critically re-analysing Wenger's original vignette, Tusting shows the 'centrality of language' to the process of negotiating meaning to 'construct and maintain communities of practice' (2005, p. 53). Attention to language can provide 'insights into the way in which broader social structures and power are played out and maintained' in the community of practice (2005, p. 53). As with all online communities, students who lack linguistic fluency could find themselves excluded or experiencing ongoing peripheral status. Another concern is the lack of concrete detail on how the model operates. 'Much work needs to be done, at a detailed level, to flesh out our understanding of *how* (for example) peripheral participation in a community of practice engages with the acquisition of competence, understanding and status' (Goodyear, 2002, p. 56). Johnson (2001, p. 52-3) admits the 'fluidity' of Wenger's concepts and labels the concept of community of practice as 'elusive'.

2.4.4 The role of the moderator in learning communities

The plethora of (overlapping but not commensurate) theoretical models for moderation and moderator competencies has given rise to a multiplicity of guidelines for moderation. They are frequently guidelines of the descriptive or 'best practice' type, often unsupported by empirical findings. In this section I describe the role of the online moderator and evaluate examples of such guidelines.

As noted above, the social constructivist underpinnings of online discussion have seen the role of the online teacher or tutor redefined. This redefinition is often described as a move from a 'lecturer' who is a 'sage on the stage' to a 'moderator' who is a 'guide on the side' (eg Mazzolini & Maddison, 2007; Collision, Elbaum, Haavind & Tinker, 2000, p. 7, similarly Johnson (2001) and Harasim (2000). In this way the 'teacher' cedes some of the status and control associated with transmission modes such as lecturing while learners become more self-directed and reflective (Collison et al, 2000). Other commentators see teaching presence as crucial (e.g. Garrison, 2006). Teachers need to model critical enquiry and sustain cognitive presence. The moderator needs to be somewhere between 'guide on the side' and 'sage on the stage' and to scaffold online activity so that students gradually become more responsible for their own learning (Garrison, 2006, p. 31). In other words, moderators need to find just the right balance - not too little, but not too much intervention. Salmon, one of the most influential producers of guidelines for e-moderators, proposes a comprehensive matrix of five characteristics (understanding of the online process, technical skills, online communication skills, content expertise and personal characteristics) and six levels of competence (2004, p. 40). The complexity of the moderator's task is mirrored in the model generated by the European Union E-tutor project (Goold et al, 2010): the e-tutor has a social, pedagogical, technical and organizational role (also Kanuka et al, 2002).

Advice abounds. Collison et al (2000) stress fostering argumentation which does not result in winners and losers but creates reasoned discourse honouring multiple perspectives to find the common ground. Collision et al also suggest quarantining the purely social. The moderator should not ask multiple or driving questions, instead repeating, clarifying, restating, juxtaposing, extending and contrasting issues and important lines of questioning. Moderators should avoid publicly praising participants, instead focussing on comments that are on track and consciously working to build community and mutual respect. An extreme view is that of Paloff and Pratt (2001), who support the 'guide on the side' model and propose a highly complex psychologically informed set of tools for guiding discussion. Unlike Salmon, Paloff and

Pratt advise against providing summaries as these place the moderator centre-stage. In further contradiction to the general thrust of other guidelines are their warnings to *avoid* expressions of emotion and pleasure at responses and to shun individual praise. Their statement that 'the craft of moderating ... shares many characteristics with counselling' (p. 199) is telling. It could be seen as quite inappropriate and even manipulative, and seems to assume a deficit model of students. The guidelines apparently have no empirical foundation, being based on an interpretive self-observation without even a user survey.

Guidelines such as these suffer from drawbacks including the absence of a strong empirical base, mutual contradictions, a tendency to generalization, low levels of transferability to a range of disciplinary and educational contexts and a failure (by and large) to account for linguistic realisations of behaviours they recommend or document.

2.4.5 'Democracy' in online communities

One of the great hopes for online discussions as a way of learning was that they would be more 'democratic' than face-to-face interactions. The ideal is that there would be equality amongst students, and between them and moderators (Wegerif, 1998, p. 42). In this section I probe whether the 'democratic theory' is supported by the research literature.

Multiple arguments are put forward in support of the democratic theory. A more 'democratic' relationship would develop since 'many relations of power and many markers of social and cultural status are removed making the interaction free from 'systemic' distortion' (Yates, 1997, p. 284). Characteristics such as status, gender, age and ethnicity cease to be (as) visible (Harasim, 2000). Online discussion was perceived as 'more equitable and more democratic' than traditional classroom talk because 'all students have a voice and no-one, not even an instructor, can dominate the conversation' (Swan &Shih, 2005, p. 116). According to Paloff and Pratt (2001, p. 117), 'this medium has been described as the great equalizer' as long as instructors are willing to leave behind the 'traditional power boundaries that exist between instructor and student'.

The statements quoted above pre-suppose that the Internet is a culture unto itself, 'free from the ... situated constraints of face to face interactions' (Hodgson, 2002, p. 233). On the other hand, it could be 'an extension of existing culturally situated forms of communication and social identity or processes' (p. 233). There is evidence for both interpretations.

Some findings favour the 'culture unto itself' argument. Sweeney et al's (2004) cohort reported benefits of 'reduced hierarchical divides, reduced race and gender-based inhibitions'.

Downing and Chim (2004), using learning styles theory, concluded for their sample of Hong Kong Chinese students that 'reflectors' behave in more extraverted and active ways online than in face-to-face contexts, where they felt intimidated. Koschmann et al (2005, p. 282) support the 'democratisation' argument since in their study students produced all three components of the Initiation – Response - Evaluation pattern of classroom interaction normally employed by teachers. For Schellens and Valcke (2005), in the cognitive processing model students scaffold the learning of peers much as a moderator would by taking care to make explicit their output, which serves as their peers' input.

Other findings are ambivalent. The 'lack of physical presence that influences norm behavior in groups' is a positive for online communities, according to Johnson (2001, p. 54) (although the opposite has been documented, for example flaming). Wegerif (1998, p. 42) concludes from research findings that 'CMC supports an egalitarian style of communication in which everyone can participate more easily', although this was not achieved in his sample. Online communication by women was shown to exhibit the same patterns of frequency, length, topic selection and stylistic features as face to face communication in Yates (1997) but opposite tendencies in Reeder, Macfadyen, Roche and Chase (2004). Even Paloff and Pratt (2001) do admit that instructors still assign grades, which must surely be an exercise in maintaining traditional power boundaries despite apparent equality.

There is good evidence that patterns from 'outside' are repeated online. Hammond (2005) reviewed 62 studies and concluded that willingness to 'engage with other learners was seen to be related to preferred learning style, confidence and self-esteem, cultural background and linguistic ability' (p. 17). Reeder et al (2004) show that e-learning tools such as online discussions are not culturally neutral. Cyberspace is itself a cultural space, created to embody valued aggressive/ competitive behaviours, efficiency and public communication, leading to mismatches between this communicative culture and that of individuals from a range of backgrounds, leading in turn to confusion, misunderstanding and attrition. Cultural differences in face-to-face communication styles and culturally-based perceptions of the learner-teacher relationship are echoed online (Reeder et al, 2004; also Johnson, 2001; Tu, 2001; Doherty, 2006; Chen, 2010).

The arguments are certainly 'conflicting' (Yates, 1997, p. 282). In fact, the 'democratic theory' of CMC may incorporate 'a naïve assumption that the texts of such communication are free of all social markers' (Yates, 1997, p. 283), whereas all texts 'carry markers that identify in some way or another their authors' (p. 285). The 'lack of visual communication does not prevent the

complex expression of identity' (Yates, 1997, p. 285), including markers of, for example, gender, ethnicity and age which the democratic theory suggests are elided.

Another aspect of equality between students in online discussions concerns 'barriers' to participation. Such barriers may be technical (lack of suitable computer equipment or internet access, navigation difficulties) or personal, for example the reluctance to take risks or to advance independent ideas which may run counter to group norms (Paloff &Pratt, 2001) and excessive politeness and unwillingness to engage (Tu & McIsaac, 2002). Linguistic barriers may also exist, for example the lack of clear norms for communication (Irwin & Berge, 2006). Generally speaking, communication in virtual environments, which are 'bounded' and where participation is forced, could be described as to some extent inauthentic and artificial (Barton & Hamilton, 2005, p. 25). Constructivism as a pedagogy for online discussions also brings with it some possible barriers for participation. Constructivist learning environments have proven difficult for some students to navigate or learn from, depending on their previous experience and current expectations of the interaction (eg Chen, 2010). As noted above, the constructivist emphasis on discourse may disadvantage certain participants, for example those who do not have the language of instruction as their first language or who may not have the relevant 'coding orientation' (Bernstein, 1996), acquired through social class, upbringing or previous educational experience. This underlines the need for further research into online participation, the explicit modelling of genres and ways of interacting as well as making expectations clear.

 Finally, it is necessary to ask whether greater equality and democracy in online discussions would lead to greater learner satisfaction. For some users, a learner-centred focus may be incompatible with their familiar patterns and expectations of education (Russo & Campbell, 2004; Chen, 2010), leading them to reject group processes and continue to cast the facilitator in the role of 'teacher'.

Although it would be interesting to track the correlation of factors such as gender, cultural background and ethnicity with democratisation (or otherwise) in my data, this is not the main purpose of this research. In any case, such studies run the risk of assuming that social positioning is deterministic. I intend to focus on just one aspect of democratisation: the extent to which student participants take on roles of overt community building, task specification and the evaluation of ideational meaning which might be thought of as the preserve of the moderator. This is something of a leitmotiv running through several chapters: Chapter 4 (structuring the discussion) and Chapters 5 and 6 (building communities of various kinds).

2.4.6 The individual and the community

Much has been made of online communities supporting learning, but what of the individual within such communities? Could dissatisfaction with online discussions be connected to the tension between the individual and the group? In theory the building and maintenance of communities is performed cooperatively by participants and accepted fairly unproblematically by them. However, a community is composed of individuals with differing histories and trajectories, orientations and needs. Where such differentiation occurs, there exists the possibility of individuals responding to and participating in the community differentially, potentially resisting or disrupting it or valorising identity negotiation over group processes. In order to explore this further, I examine communities and the positioning of individuals within or in opposition to them through the lens of identity. I begin by outlining the contested notion of identity and move to selected examples of identity formation in pedagogical contexts. This sets the scene for the discussion of linguistic (SFL) theorisations of identity, affiliation and solidarity (Chapter 3) and the realisation of these in my data, undertaken in Chapter 6.

Identity

The concept of identity has taken on a wide range of meanings over the past four or five centuries (Gee, 2000, p. 99). It has been theorised from a variety of angles: psychoanalytical, sociological, post-modern, post-colonial and discursive (Bednarek, 2010, p. 250), with (ongoing) core conflicts in definition and theorization. These include the question of whether identity is essential (inherent) or alternatively *created* through individual agency, whether (or to what extent) it is subjective (personal, individual) or intersubjective (created in interaction with, and through the perceptions of, others) and the extent to which it is pre-determined by an individual's social location, for example class or ethnicity (Benwell & Stokoe, 2006).

In spite of these tensions, there appears to be some consensus around a working concept of identity adequate for educational research if not for deep philosophical enquiry. This view (e.g. Gee, 2000) sees identity as contextually specific, fluid, a conjoint construction created discursively and logogenetically in interaction with others. It may also be seen as a performance, with implications of transience and dissimulation (particularly in certain online contexts). However, as Benwell and Stokoe (2006) point out, 'most of the 'grand' theories of discourse ... (neglect) both linguistic detail and empirical evidence', leading Bednarek (2010, p. 250) to conclude that there is 'a clear need for linguistic and semiotic approaches to the analysis of identity'. Gee sees the conscious creation of 'communities of learners', as

described above, as an attempt by educators to build affinity groups in which individuals are 'proactive enquirers and responsible for each other's learning', although these are 'institutionally sanctioned' rather than voluntary (2000, p. 107).

Individual identity has received far less attention in the online discussion literature than community formation and maintenance, perhaps as a result of the emphasis on group processes and collaboration in education generally and online learning in particular. This is in spite of the fact that, given the continuous discursive negotiation of identity with interlocutors, it is difficult to imagine *not* doing identity work when participating in social discourse. The creation of false identities, avatars and other simulacra in certain online contexts (MUDs, games and dating sites) has been well attested, but gross dissimulation is less likely in the study context since participants are named and most students meet or have dealings with lecturers and tutors. Such dissimulation, if it occurred, would run counter to notions of trust and honest self-disclosure in online communities. Minor dissimulations are however possible and may be undetectable.

Examples of identity construction

The literature contains many examples of identity construction in educational contexts generally theorised in non-linguistic terms. In Kajee's (2008) study, an online community of practice developed amongst South African university students, who moved from legitimate peripheral participation to the centre (p. 230). Individual identity was constructed through students' 'roles and their sense of worth in society' (p. 216), mastery of technology and positions with respect to ideational meaning. Using positioning theory, Dennen (2011) examines the fluid and co-constructed identity of the facilitator in several online discussions. She found that facilitator identity is closely tied to knowledge and power, although this can be negotiated, and that facilitators' positioning was more likely to occur as a result of their own written messages than messages from students, who seemed simply to accept the facilitator's self-positioning (p. 532).

The development of a professional identity as a teacher has obvious parallels with building identity as a public health professional. Two studies are provided here in illustration. In Irwin and Hramiak's (2010) study into trainee teachers on placement, the leading role of the tutor and the importance of emotional support over information sharing were confirmed but trainees did not develop identities as teachers. Skulstad (2005) showed that student EFL teachers (novices) were constantly renegotiating their identities as students and EFL teachers

within an online (academic) discourse community. However, tensions arose between social relations and the need to critique peers' work; roles and identities compete online. Participants made choices including the mixing or hybridity of discourses and genres to support communicative purposes. Similar tensions are evident in the discussions forming the basis of the present study: student participants have multiple roles and identities: as students; as current or future public health professionals; as current or potential researchers; as members (to varying degrees) of academic communities; as (enforced) community members in a (theoretically) friendly and supportive relationship with others and as competitors for good marks, negotiating an unfamiliar genre.

2.4.7 Researching online communities and identities

The sections above have demonstrated some positive findings and have also indicated some of the issues arising with research into online communities and, to a lesser extent, individual identity. On the positive side, where research has attended to Communities of Inquiry there is evidence of the development of warm and supporting relationships. Findings concerning social and teaching presence suggest that these may assist learning. Communities of Practice are found to support professional learning and the development of professional identity to some extent. There is more ambiguity, however, surrounding the role of the moderator and 'democratisation' in online discussions. Importantly, a review of the research highlights a number of issues, including the lack of agreed theories and methodologies, unclear terminology, selection biases, failure to adequately describe context, contradictory findings and conflicting advice, as well as a failure generally to consider language issues in interaction. A more thoroughgoing summary of findings and research issues follows in Section 2.7, allowing me to include the significant area of research findings related to collaborative knowledge construction, addressed below.

2.5 Findings in relation to collaborative knowledge construction, cognition and argumentation

In this section I combine a critical review of the literature on collaboration with that on knowledge construction. This may be unexpected, since collaboration seems to imply a social activity, at odds with the apparently more cognitively orientated 'knowledge construction'. However collaboration has both social and cognitive aspects: it is precisely through social interaction that knowledge is said to be constructed. Thus it has proved virtually impossible to disaggregate research into collaboration from that into knowledge construction. In this section

too we encounter complex concepts and processes and ambiguous terminology, as well as issues of methodology and the nature of evidence similar to those encountered in earlier sections.

2.5.1 Collaboration

Although there are many arguments in support of collaborative learning processes, it is difficult to find consensus about exactly what is involved. In practice, the terms 'collaboration' and 'cooperation' are often used interchangeably. However, collaboration 'is associated with constructivist thought', students have greater responsibility for interaction (and learning) and the result is open, while cooperation is 'more instructor centred' (Nichols, 2009, p. 4). However 'the relative benefits of collaboration may be more theoretical than actual' (p. 5) and specific learning activities are most likely situated on a continuum, as with the case studies in the present study. In this thesis I use the term 'collaboration' for all types of collaborative/ cooperative activities. When collaborating, students 'should be expected to work together to generate deeper levels of understanding and critical evaluation of the material under study' enabling them to generate 'new knowledge and deeper levels of meaning' (Jonassen et al 1995, p.115). However, articulating clearly the processes involved, namely exactly how working together would lead to enhanced understanding and critical thinking and the nature of 'new' knowledge, seems to have been problematic. On the one hand are purely social descriptions, for example that collaborative learning involves 'all socially contextualised forms of learning' (Suthers, 2005, p. 297), or that it involves a dialogue, a gathering or accumulation of ideas. It may include reformulation to move an answer or statement forward (Wolfe & Alexander, 2008, pp. 7-8) or 'mutually-endorsed understandings' (Koschman et al 2005, p. 268). Moving beyond such descriptions takes us to the more complex, possibly cognitively-based explanations involved in knowledge construction and argumentation. For this reason I will from this point onward consider collaboration, knowledge construction, critical thinking and argumentation together. This risks blurring some boundaries but provides a starting point for examining this important component of learning through online discussions.

2.5.2 Cognitive presence

In Section 2.4 above I introduced the notions of social presence and teaching presence within the Community of Inquiry model and explored related research. Here I address the third 'presence', namely *cognitive presence.* According to the originators of the concept, cognitive presence in an online discussion 'can best be understood in the context of a general model of

critical thinking' (Garrison et al, 2000). It is formalised as the 'practical inquiry model', a 'generic' schema which

> *'...conforms to the limitations of a formal and somewhat inherently contrived educational experience where issues and problems are generally artificially posed by the teacher then explored and tested vicariously' (Garrison et al 2000, p. 98).*

Following Dewey, a precipitating breakdown in understanding, cognitive dissonance or 'triggering event' is the stimulus for enquiry. Learning 'is initiated in situations that have turned problematic' and enquiry is the process whereby the problematic aspects are resolved (Koschmann et al, 2005, p. 267). Critical thinking and enquiry, while reflective, are also seen as social. Shared understandings and personal meaning exist in an 'iterative and reciprocal' relationship and there is 'synergy' between 'reflection and communicative action' (Garrison, Anderson and Archer, 2000, p. 98).

The Practical Inquiry Model (PIM) for investigating Communities of Inquiry posits four phases of cognitive presence: Triggering event, Exploration, Integration and Resolution (presented with description and evidence of process in Kanuka, Rourke & Laflamme, 2007). This model is mentioned here because it was influential in later studies, especially in the higher education context, but it is not unproblematic. The coding template provided in Garrison et al (2000) lacks detail, not to mention guidance regarding linguistic realisations of the four categories. There is no explication of what is meant by 'shared understandings' and how this is to be recognised. The model is linear and based on a particular theory of learning but is it proven that cognitive dissonance or a 'problem' are needed for learning to occur?

2.5.3 Accounting for collaborative knowledge construction

There are five main aspects to consider when examining collaborative knowledge construction. They are individual versus group cognition, knowledge *building* versus knowledge *construction*, fostering deep rather than surface learning, the place of reflection and the role of argumentation and critical inquiry. The distinction between knowledge building and knowledge construction captures the difference between *accumulative* and *intersubjective* interpretations (Suthers, 2005). When *building* knowledge, participants add their individual knowledge and understandings to a common pool (accumulation) from which all can draw knowledge which is new to *them*, albeit known to others. Van Aalst refers to this as a 'communal knowledge resource', in which ideas are 'improvable objects' (2006, pp. 279-80), in other words worked with rather than merely shared; the goal is consensus. Wang, Woo and

Zhao(2009, p. 97) describe this as a social process of sharing, negotiating, revising and agreeing knowledge, a process which is starting to somewhat resemble knowledge construction.

According to Suthers (2005), when *constructing* knowledge, information and interpretations which are new to the group as a whole (or the discipline) are created through interaction, leading to the 'joint construction of *intersubjective* interpretations' (p 296-7, emphasis added). Koschmann et al (2005, p. 267) provide a possible example of this: the 'problematising' move in clinical problem-based learning sessions, where students, having previously had different interpretations of the issue under consideration, agree on what the problem is. As with collaboration and cooperation, it seems that knowledge building and construction are endpoints of a continuum, ranging from mere sharing to actively and collectively working on the knowledge contributed.

The concept of intersubjectivity is central to theorising knowledge construction. Knowledge construction may occur by means of *individual* cognition enhanced by contact with other minds (cognitive constructivism) or *group* cognition (socio-constructivism, exemplified by the Community of Practice in Suthers (2005, p. 296) or both (Wang et al, 2009). Collaborative learning is sometimes explained within cognitive-psychological frames of reference following an information processing model of learning (e.g. De Wever et al, 2003). According to this model, individual schemas are constructed and elaborated based on input which is in fact the output of another student. As Suthers (2005, p. 314) notes, no one theory can explain intersubjective learning and knowledge building. This is a matter for psychological and philosophical enquiry and as such falls outside the scope of this study.

2.5.4 Reflection, critical thinking and argumentation

Numerous commentators have attested to the value of participants having time and opportunity to reflect on previous postings. This is afforded by the online, permanent and asynchronous nature of these discussions. Garrison (2006), for example, quotes research to the effect that, compared to a face-to-face discussion, the online version was associated with 'more important, justified and linked ideas ... deeper critical thinking ... deeper explanations' and concluded that the opportunity for reflection adds a 'qualitative' dimension (p. 28).

Critical thinking is seen as an indispensable component of higher education (e.g. Murphy, 2004, p. 295). It has been defined as the 'ability to present well supported and reasoned claims as well as to engage with alternative points of view- challenging, critiquing, reinforcing or defending them where appropriate' (Coffin, Hewings & North, 2006, p. 147). Critical

thinking is here conceived of as an individual yet dialogic activity, drawing on the ideas of others, whether present or not. In Garrison's study it is fostered by the online discussion format, although it is also a core requirement of academic writing.

If critical thinking is a primarily individual activity, argumentation is more commonly (but not exclusively) considered to be a dialogue with others. Once again, the concepts are described in general terms and the underlying mechanism is not clear. Argumentation has been defined as 'a series of arguments that are linked by a common theme or topic', where argument is defined as 'a "meaningful expression" that is designed to support another utterance or position' (Moore & Marra, 2005, p. 201). Arguments can be monological and rhetorical, but the dialogic or multivoiced form where 'different perspectives are being presented and examined...[with a] goal... to reach agreement on proposed claims' (p. 201) is invoked for online discussions. Incidentally, I note that the pressure to achieve consensus, meaning that divergent opinions should not be held or made public, is problematic. This pressure seems to be informed by a particular socio-political context (Coffin & O'Halloran, 2009) and may mean that the social is valorised over the cognitive/argumentative aspects of online discussions.

The benefits of online argumentation are thus said to include reflection and obtaining new representations, the internalisation of these and, through writing, critique and the ordering of knowledge. It is proposed that the need to produce arguments in an interactive context may facilitate reflection and (internal) knowledge restructuring, that the 'acquisition' of arguments could lead to learning and that knowledge co-construction occurs so as to reach consensus (Moore & Marra, 2005, p. 201). Following Vygotsky, Wolfe and Alexander (2008, p. 5) describe the underlying mechanism of argumentation thus: 'social argumentative dialogue ... is internalised and leads to the development of higher mental processes'. Argumentation, especially where interactions have a critical or combative edge, leads to new knowledge which is then integrated into existing cognitive schemata. Argumentation is 'a process of intersubjective learning' (Suthers, 2005, p. 301) leading to 'persistent shared representations', which implies that individual knowledge is changed through interaction. Collaboration provides an opportunity for learners to 'scaffold each other's learning' (Hopkins et al, 2008, p. 30), which presumably equates to intersubjective learning.

The written mode of online discussions is said to foster reflective and critical thinking, as noted. As Vaughan and Garrison (2005, p. 11 quoting Wells, 1999) note, 'writing has long been used both as a process and product of rigorous critical thinking' and the written word is

'reflective' and 'explicit' which 'encourages discipline and rigor in ... thinking and communicating'. I take up this point in Chapter 7.

2.5.5 Failure to reach higher levels of enquiry

Asynchronous online discussion provides a platform for cognitive processes such as critical thinking and argumentation but does not guarantee them. According to studies published over many years, there has been a persistent problem: students simply weren't reaching or spending much of their time at the 'higher levels' of knowledge construction. This was largely identified through the use of coding protocols, which I review in Section 2.7 below. These often appear to be based on Bloom's 1956 taxonomy or the SOLO taxonomy (Schrire, 2006, p. 53), in which higher order thinking involves 'analysis, synthesis and evaluation', or perhaps just 'synthesis and evaluation'. Individual researchers tended to adapt these taxonomies and existing coding schemes to suit their own purposes.

Very little research 'reports evidence of higher-order critical enquiry' (Hopkins et al, 2008, p. 31), although there are some exceptions (e.g. Schrire, 2006), There is a tendency for students to share, compare and identify areas of dissonance (lower order thinking skills) but 'little evidence of socially-constructed meaning requiring the use of higher-order critical thinking skills' (Hopkins et al, 2008, p. 32). Disagreement was likewise infrequent. Participants accumulate knowledge, but real intersubjective learning appears to be rare. In fact, 'higher order uses of conferencing ... [were] perceived by many participants to be limited' (Levy, 2006, p. 272). Vaughan and Garrison (2005), working in blended academic development environment, found that higher cognitive levels in the Practical Inquiry Model were achieved neither F2F nor online – by academics.

Various reasons for this failure were proposed, starting with purely technical. The threaded format may work against interactive knowledge construction (Hopkins et al, 2008, p. 31). The volume of interaction may be too low to enable advanced levels of knowledge construction (Oliver & Shaw, 2003, p. 64; Hopkins et al, 2008, p. 31). Sclater and Bolander (2004) admitted the factors were complex, and invoked participant characteristics, for example previous educational experiences (p. 195) motivation (p. 198) and the fact that discussions were assessed (p. 196). The discussion topics may not have been sufficiently meaningful, relevant, challenging or controversial (Wang et al, 2006). Students may have held opinions which were too similar whereas difference breeds argumentation (Joiner, Jones & Doherty, 2008). Alternatively (or additionally) the problem may have been lack of structure: more structure

means more cognitive processing (De Wever et al, 2003; Schrire, 2006). Inadequate facilitation may have been to blame (bearing in mind the ambiguity surrounding the role of the moderator). Task design frequently came under fire: if the task does not require synthesis, application or whatever the higher levels in the coding scheme requires as evidence, these higher levels are unlikely to eventuate (e.g. Vaughan & Garrison, 2005). A similar problem ensued when the synthesis was individual (e.g. creating a plan or document) or when it occurred off-line. Given the issue is so common, it is unlikely to be due to individual cognitive difficulties. Specific types of social interaction were associated with higher levels of cognitive processing (De Wever et al, 2003); where these are absent, the higher levels do not eventuate.

Finally, the issue may be compounded by the analytical tools used. In fact, 'existing frameworks for analyzing argumentation in electronic conferencing, most prominently content and interaction analysis' are 'problematic' (Coffin et al, 2005a, p. 465). Content analysis does not account for the interconnection of views presented by participants; interaction analysis (Henri, 1992) is 'designed to do this' but possibilities for describing the relationship between messages are limited. An analysis needs to consider the 'dynamic staging' of the argument. Some researchers found it difficult to select a suitable coding scheme and others found it hard to apply an existing instrument (e.g. Wang et al, 2006; Joiner et al, 2008). Many produced non-validated versions for themselves. The higher levels of knowledge construction are described differently in, and are even missing from, some schemes. I take up issues associated with coding schemes in Section 2.7 below.

One solution commonly proposed to the failure to reach higher levels of cognitive processing involves pre-structuring argumentation with scripts, message starters, restricted event sequences, categories or labels (e.g. Jeong, 2003). Ravenscroft (2001) suggests dialogue models and games to structure discussion. However, Moor and Marra (2005) showed that such strategies had negative effect on argumentation, reducing debate and introducing another layer of difficulty for students. Weinberger and Fischer (2006) used computer-supported collaboration scripts for student contributions targeting epistemic, argumentative and social dimensions (these scripts were not described or demonstrated). They found that doing so achieved the aims of the particular script but had negative effects on other dimensions. The epistemic script had negative effects on the argument and social dimensions, the argumentative script impeded epistemic (content-based) activities and the social script reduced the construction of arguments. Despite methodological differences, these findings offer interesting parallels to my own.

To conclude, the situation commonly occurs in online discussions where students are unwilling or unable to operate at higher levels of knowledge construction, which involve analysis, evaluation, critical thinking, disagreement and argumentation. This means that the mooted pedagogical potential and the affordances of the technology are not being realised, or at least not being visibly realised within the discussion.

2.6 The use of coding schemes to describe online interaction

Coding schemes are a response to the need to undertake in-depth analyses of the large amounts of data available in discussion transcripts. Such schemes categorise online interaction according to preconceived themes, aspects, characteristics or stages of the discussion and may target any aspect, for example social presence, community, interaction, critical thinking or knowledge building. They may analyse postings as such and/or the relationships between them. They tend to be informed by specific pedagogical theories or information processing models or, occasionally, observation of classroom interaction. Such analysis clearly goes beyond the merely quantitative but falls short of full discourse analysis. The instruments are primarily intended for researchers; convenient protocols to assist moderators assess discussion progress are also proposed (e.g. Brace-Govan 2003). While the task of analysis is simplified by using these protocols, compared to undertaking a full discourse analysis, there are many problems associated with their use. In the following section I describe a selection of such protocols then critically review their deployment.

2.6.1 Development and examples of coding schemes

Over the 20-year history of online discussions research, several dozen coding schemes have been developed. Campos (2004) surveys thirteen, Buraphadeja and Dawson (2008) fifteen (with six overlapping with the former) and De Wever, Schelens, Valcke and Van Keer (2005) likewise fifteen, with six unique to their review. Some schemes are original, developed by the researcher using either a top-down (theory-driven) or bottom-up (data driven) approach, or based on one or more existing schemes, with various degrees of modification and blending. Some schemes are used just once, in the publication in which they first appear; occasionally they are re-used.

An example of an original bottom-up protocol is Gunawardena, Lowe and Anderson's (1997) Interaction Analysis Model (IAM) which was developed using a grounded approach. This instrument appears to suggest a linear process to evaluate the social construction of knowledge, reminiscent of taxonomies such as Bloom's. The stages of this process are 1:

Sharing/comparing information; 2: The discovery and exploration of dissonance or inconsistency; 3: Negotiation of meaning and co-construction of knowledge; 4: Testing and modification of proposed synthesis or co-construction and 5: Agreement statements and applications of newly-constructed meaning. Each phase is subdivided into up to five 'operations'. This model has received some support, for example from Moore and Marra who feel that, in a context where there are no consistently adopted models, even its 'relatively small' track record makes it one of the most frequently used models (2005, p. 195). For Schellens and Valcke, however, (2005, p. 972) it lacked 'discriminant capability'; certainly, the lack of detail on linguistic realisations of the operations make it difficult to apply them (e.g. Lander & Reid 2008). It is somewhat concerning that the instrument was developed based on a discussion which was in fact a debate, a highly structured form of discussion, and pre-supposes cognitive dissonance of some kind. It is not clear how relevant these categories are to other, less structured forms of online discussion or to discussions which are not based on cognitive conflict (e.g. Kay, 2006). The Community of Inquiry model discussed above gave rise to separate instruments to measure social, cognitive and teaching presence (presented together in Kanuka et al, 2007). The social presence component of this was modified by Hughes et al (2007). Oriogun, Ravenscroft and Cook (2005) describe these instruments as needing further development and testing against actual transcripts. On the other hand, there is some research support for them (Nichols, 2009, p. 22). These two instruments are the most used and most adapted coding schemes.

Validated schemes, however, are in the minority; most instruments have a limited research base or none at all. In the majority of papers consulted for this section, a pattern emerges. There is a survey of such schemes which generally finds them wanting (eg Campos, 2004, pp. 4-6 and Veldhuis-Diermanse, 2000, pp. 27-40), leading to the development of yet another (sometimes under-theorised) coding scheme (cf Littleton & Whitelock, 2005; Sorenson, Takle & Moser, 2006; Hughes et al, 2007). Such new schemes are either an adaptation of an existing instrument or loosely based on several. For example, Murphy (2004) reviewed nine existing models and chose four as basis for a new scheme (p. 299) which, although similar, added a clarification phase and included social elements in some phases. This new scheme had 25 categories but when applied, eleven categories were not populated. De Wever et al (2003) based their cognitive processing scheme on three existing models; Schellens and Valcke (2005) developed a new typology based on two existing models to code for 'academic discourse' (not further defined) as well as knowledge construction. Oriogun et al (2001) proposed a scheme

for group cognitive processing based on two models; the categories are not linguistically based and appear difficult to apply. Baker (2004) is based on three existing instruments. Looking at relationships between postings, Jeong (2003) proposed a coding scheme for sequential analysis and transitional possibilities based on text analysis, compatible in many ways with the IAM, which enabled the visual representation of frequency. Jeong (2003) sees the discussion process as cyclical or iterative rather than linear.

2.6.2 Coding scheme issues

The discussion above has begun to indicate some of the problems inherent in online discussion coding schemes. First is the fact that there is no agreement on their suitability. Added to this is the proliferation of new schemes, their inadequate research base and the difficulty of applying some of them (Campos (2004), based on mathematical calculations of logical operations, is an extreme example). The lack of discriminating ability has been noted. The 'communicative richness of transcripts may not be fully revealed' when coding provides 'very few interaction categories' (de Wever et al, 2005, p. 23). Some appear to not distinguish between internal features such as social interaction or cognitive processing and the formal stages of a discussion (e.g. Brace-Govan 2003). Gerbic and Stacey identified a methodological 'tension' inherent in coding schemes where units of meaning within messages have been qualitatively analysed then reduced to 'numeric descriptions which could be statistically analysed' (2005, p. 47).

Further issues surrounding the use of coding schemes include the lack of a theoretical model of the collaborative learning process. Without this 'it is impossible to identify empirical indicators that will form the basis of a coding instrument as a standard' (de Wever et al, 2005, p. 9). Concepts from other theories and frameworks are borrowed, and where this occurs, 'not all studies present a clear link between the theory and the instruments' (de Wever et al 2005: p. 23). Some schemes are derived from the face to face discussion of abstract topics (Coffin, Painter & Hewings, 2005b, p. 44), debates or logical operations. There is no agreement on the unit of analysis; many studies do not adequately report on inter-rater reliability and it is not clear to what extent subjectivity can be avoided (de Wever et al, 2006). Some researchers (e.g. de Wever et al, 2006) call for replication studies to validate existing instruments rather than allowing coding schemes to proliferate.

Most concerning however is the fact that these coding schemes analyse interaction using pre-determined categories which are informed by specific pedagogies or concepts of learning and/or communication. For example, many schemes are based on concepts of learning

triggered by cognitive dissonance, as noted, but it is by no means clear that all learning needs to proceed in this way. Many schemes assume a linear progression to higher levels of knowledge construction without considering non-linear or iterative models or the possibility that higher (or any) levels of cognitive processing might not find a verbal expression in discussions. Some schemes code separately for social interaction, rather than regarding it as in any sense integrated with cognitive operations. The issue of broad categories leading to coarse-grained analysis has already been mentioned. Many schemes 'have not taken into account the situated nature of argumentation' (Coffin et al, 2005b p. 44) and few are based on 'data ... *emerging from* [CMC]' (Coffin et al 2005b, p. 57, emphasis added). Finally, existing frameworks are 'problematic' as they do not show the 'interconnectedness of views'; interaction analysis is limited to agreement, disagreement, or whether statements are based on evidence (Coffin et al, 2006, p. 149).

2.7 Summary: researching online communities and collaborative knowledge construction

The outcomes of research into online discussions to date have proved inconclusive and possibly even unhelpful. This is generally conceded, both in terms of understanding the processes involved and of providing empirically-based guidelines for task design and moderation. The lack of agreed methodologies, approaches and research instruments (Nichols, 2009, p. 16; Jeong, 2003) make comparisons and synthesis difficult (Irwin & Berge, 2006, p. 5). Added to this are the lack of precision in terminology (Hammond, 2005, p. 13, Nichols, 2009) and a selection bias favouring a narrow range of disciplinary and pedagogical contexts. This bias exists because early research targeted early adopters in IT and education at University level in North America and Britain, with very little attention paid to medicine, health and other disciplinary contexts (cf Hammond, 2005). Findings also appear to be highly specific to course contexts, including activity design, assessment and relationship to other course components, which are often not well articulated (Hammond, 2005, p. 12). Small samples sizes in highly specific contexts mean that findings often cannot be generalised (de Wever et al, 2003, p. 26); much research has been reductionist, concentrating on one piece only of a complex puzzle.

Research into online discussions appears unable to provide meaningful empirically-based design guidelines to practitioners (Koschmann et al, 2005 p.283; Ravenscroft, 2001, p. 149). Researcher and practitioner frustration with the lack of empirical evidence is exemplified by De Wever et al: '... an integrated theoretical model that can account for the effects of CSCL is still

wanting' (2003, p. 12). Moore and Marra (2005) complained that '..empirical evidence to indicate that text-based communication used in computer conferencing can facilitate higher-order and critical thinking' was 'only just emerging' and 'not entirely *consistent* in its results' (p. 200). In 2007, Hughes et al felt that 'online facilitation is at an early stage of development' (2007: p27) and as recently as 2008, Hopkins et al were forced to conclude that 'There is a general lack of evidence regarding the actual achievement of ... [the] aims' of promoting 'higher-order critical inquiry and the social construction of knowledge' in asynchronous computer-mediated conferences (p. 29). In fact, the absence of empirical evidence impacted negatively on practice. Doherty (2006) argues that online educational practice was 'powerfully' shaped by published literature of the descriptive or 'best practice' type offering 'advice uninformed by research' (p. 60). To illustrate this, Salmon's five-stage model of e-moderating, which I discuss in Chapter 4, 'arose as an explanation of experiences within one particular course, but now threatens to supplant other conceptions of what it means to learn collectively online' (Oliver et al, 2007, p. 29, quoting Lisewski and Joyce 2003).

In conclusion, there are only a few aspects of online discussions for which there is a body of consistent evidence. There is some evidence for the formation of communities of learners or practice online, some agreement about the characteristics of such communities and some evidence of positive associations between community, satisfaction and learning. Guidance for moderation exists but is ambiguous, and there is evidence both for and against the democratisation of learning online. Perhaps the questions being asked are too broad and a more nuanced approach is needed. Researchers do appear to be generally in agreement that students are failing to reach or sustain the higher levels of cognitive processing it was assumed they would achieve and that this is a matter of concern.

Few of the studies discussed so far pay attention to the discursive construal of community and the discursive construction of knowledge online. This is a critical omission given that the discussions exist only as discourse. The inadequacy of instruments predominantly used for investigating online interaction was noted in the previous section. Although such coding schemes sometimes acknowledge linguistic features, they do not proceed from an underlying theory of language. To overcome the biases in coding schemes, an analytical tool is needed that is agnostic with respect to pedagogical theories, to describe what happens rather than what should happen. For this reason I have chosen a discourse analysis approach informed by a theory of language (Systemic Functional Linguistics) in which interaction (interpersonal

meaning) and cognition (ideational meaning) are simultaneously enacted through and shaped by language.

2.8 Researching online discussions as discourse

As noted above, comparatively few studies have taken a pedagogically neutral, linguistically-informed approach to analysing online interaction viewed as discourse or text or even suggested it. Shrire (2006, p. 50) is an exception, calling for a fine-grained content analysis of the discourse.

Coffin and O'Halloran (2009) emphasise the benefits of using linguistic analysis and description to make explicit to teachers and learners how language achieves educational and disciplinary goals. As they write in relation to argument texts (but applying equally to all written text types), it is

> 'helpful to conduct a close examination of the linguistic construal of conflict and confrontation both in traditional and changing argumentative practices to see how meanings made (or not made) at the micro-level impact on the overall argument process' (p. 311).

The ambiguous nature of online discussion, apparently incorporating features of both spoken and written language, has profound implications for analysing interaction. This is perhaps not so apparent when using coding schemes, but becomes significant when analysing discussions as text or discourse. The first response by researchers to this ambiguity was to investigate isolated language features below the level of the clause, e.g. pronouns, or easily identified functions such as questioning. Such investigations tended to use quantitative corpus-based approaches, which allow for comparison, for example between male and female discussants' communication styles. This approach has its limitations, however: the units studied are quite small, often individual lexical items, and such quantitative overviews do not take account of syndromes of features and logogenetic progression within texts. Such analyses do not take account of larger segments of text either: clauses, sentences or the generic structure of an entire text, which is exactly the kind and scale of guidance students need to write cohesively, clearly and, if needed, persuasively.

In view of the spoken/ written ambiguity noted above, analytical tools for both spoken and written language will be required. *Spoken* models for online discussions are likely to include face to face talk for both social purposes and more formal pedagogical spoken interaction, such as classroom and tutorial participation. Spoken interaction is commonly analysed within

the SFL framework using the system of NEGOTIATION (see Chapter 3) and casual conversation is sometimes used as a model for understanding online discussion structure (see Chapter 4). Students may take as their models *written* texts such as assignments and published papers. As I show in several of the following chapters, this certainly seems to be the case in the 'chunk' components of online discussions, where features such as citing and evaluating sources appear.

2.8.1 Argument structures in two Open University discussions

I noted above that argumentation was an important component of knowledge construction. Argumentation in online discussions has not been much studied from a linguistic perspective. One exception is the large study of the development of argumentation skills in moderated and assessed asynchronous LMS-delivered discussions in a Masters of Education (Applied Linguistics) program at the Open University undertaken by Coffin and colleagues (e.g. Coffin et al 2012; 2005a; 2005b; Coffin & Hewings 2005). Coffin and colleagues are mainly concerned with skills in multiparty argumentation, i.e. the 'linguistic resources and strategies used by the participants to exchange and challenge different points of view' (2005b, p. 45), although they are also interested in the flow-on effects of online argumentation to assignments (e.g. Hewings & Coffin, 2007) and the role of moderation (e.g. Painter, Coffin & Hewings, 2003). I summarise the findings of these studies below.

Structurally, these discussions showed more initiations than responses and an absence of interaction with peers (the problem of 'parallel monologues'). The stages of written argument genres were present, although they were less stable and linear than in written academic texts. Additional stages appeared, for example the 'reasoned observation', thought to support interpersonal relationships. A positive tone predominated: students were inclined to collaborate and build solidarity, for example by endorsing each other's answers, rather than critique and counter arguments or interrogate and challenge peers. Posts were guarded, tentative and qualified. Arguments were complex, dialogic and collaborative; students added to, modified and refined the arguments of others, shared experiences and strengthened the claims of others, not just their own. There was evidence of reflective engagement with the ideas of others and a much wider range of sources than would be encountered in a written academic argument text. On the other hand, the opportunity for synthesis and abstraction appeared to have been foregone: statements of thesis and a hierarchical ordering of ideas were often missing. The argument proceeded with related claims and arguments and personal assertions and argument strands tended to disperse. According to Coffin et al (2005b), the

combination of arguing from evidence and from personal and professional experience makes this a unique way of arguing, possibly 'important for engaging and motivating students' (Coffin et al 2005b, p. 57). However its relevance as an apprenticeship into written academic texts (where these are required) needs to be further examined. Coffin and Hewings note that rehearsing 'key strategies for academic debate' 'does not guarantee their uptake or increased use in written assignments' (2005b, pp. 54 - 55). In fact, genre theory suggests that such transfer might be problematical for students. Register variables for written assignments are decidedly different from those for online discussions. These include considerations of tenor (single rather than multiple readers, clear-cut substantial status and authority differentials un-muddied by an audience of peers or attempts at democratisation) and field (e.g. the need to cite authoritative evidence).

2.8.2 Online opinion texts in an ESL context

Another study (Piriyasilpa, 2009) has parallels with my own in terms of methodology and findings (if not disciplinary context). It examines online discussion amongst young University-level Thai EFL learners. The discussions were part of a writing curriculum and were optional. All the participants were known to each other (i.e. face to face) before commencing the discussion and are described by Piriyasilpa as friends.

The study focuses on genre, cohesion and coherence; only those parts concerned with genre will be discussed here. The set tasks started with self-description then moved to reviews of films watched and discussion of topics arising. The tasks mainly revolved around personal meaning. The patterns of reply (amongst students and between students and teacher) were pre-determined and fairly structured. Piriyasilpa proposes two levels of structure: the stable macro level (which does not appear to be further analysed) and the level of individual postings. Postings are considered to be macrogenres which show a consistent patterning of the three macro-stages of 'opening bonding' 'responding' and 'closing bonding'. The opening and closing bonding includes common stages (pp. 169 – 171) such as salutation, banter, apology, announcement, call and leave taking, as well as more idiosyncratic stages such as exhortation, responding to a very specific sociocultural situation (p. 365).

The responding macro-stage includes stages from one or more elemental genres such as exposition (analytical and hortatory), explanation and anecdote, but the structure is more complex than that of archetypical genres (p. 191). Genres are combined with or embedded in others, new stages are added (for example 'illustration reinforcement'), genre ellipsis occurs in

subsequent stages, sequencing is unstable and boundaries are blurred. These stages also have a community-building function (in addition to that of the bonding stages). Piriyasilpa's findings overlap with those of Coffin and colleagues to a large extent, but not completely. Together they build up a picture of online discussion genres which is very relevant to my study.

2.8.3 The play of identity in an email list

Don's (2007) study examines eight years of contributions to an email list. The underlying social purpose of the list was the negotiation of identity, achieved using APPRAISAL resources. Don proposes a generic structure relevant to different asynchronous modes of interaction. Her list members differ from my discussion participants in that the context was not educational and group membership was voluntary. Don also uses corpus approaches extensively, an approach I have chosen not to pursue. Nonetheless her findings concerning structure and identity resonate with mine.

2.8.4 The making of cultural difference and sameness online

Doherty's study of internationalised online education is conducted as a virtual ethnography and features 'layered textual analyses synthesising Bernstein's theory of pedagogic discourse and Systemic Functional Linguistics' (2006, p. ix). Her core concern is with culture, cultural difference and cultural identity and the clash between cultural difference 'subsidising' curricular richness and 'regulative flares' which underlined aspects where cultural difference was insufficiently acknowledged (p. 301).

2.8.5 Conversation analysis of an email list

Blanchette (2009) starts from the premise that, in the more egalitarian online context of learning, communication more closely resembles conversation than it does classroom talk. This flows from the unequal distribution of turn-taking in the latter. Using a conceptual framework based on Sinclair and Coulthard (1975) for classroom interaction and others for conversation analysis, but apparently not referencing any underlying theory of language, Blanchette concluded that in the online mode students 'held the floor' much more, contributed more content, asked more rhetorical questions and made more evaluative moves. The 'traditional' initiation – response –evaluation classroom pattern was not found, there was no backchannelling, there was a tendency to provide essay-like answers and many posts received no reply. These findings resonate with many of mine, although Blanchette's study uses analytical tools for spoken language only.

2.8.6 Discourse-based approaches to analysing online discussions

SFL-based discourse analyses of online discussions are as yet not numerous. However they have provided some valuable insights, for example explicating the curriculum macro-genre, embedded genres, the interplay of social factors and willingness to engage in argumentation and the structuring of arguments online. Since they are free of pedagogical preconceptions, such approaches provide multiple viewpoints, corroborating and extending or refuting what previous approaches have found, as well as providing entirely new insights.

There are sound reasons for using a discourse-analytical approach, and for basing such an approach on SFL. The former flows from the understanding that learning is interactional: '... if learning is produced in and through instructional discourse, then evidence that learning is being done should be made available within the same discourse' (Koschmann et al, 2005, p. 282). The latter flows from the fact that SFL combines a social theory of language with a robust, validated tool of analysis. As a linguistic theory, SFL accounts for the connection between language and learning. As a tool, SFL has been extensively theorised and applied in a large number of studies, avoiding the pitfalls of constantly-changing non-validated tools. It is formally taught and comprehensively documented, avoiding the need to train analysts to use each new coding scheme, thus increasing inter-rater reliability and comparability. Within SFL, concepts of genre and register account systematically for context. Finally, SFL accounts for three aspects of language simultaneously: its use in enacting interpersonal meaning, its function to make sense of experience and its text- organising role, whereas coding schemes often account for these aspects separately. I describe SFL and its application to my research in detail in Chapter 3.

2.9 Research approach

For the reasons outlined above, my approach seeks to answer the research questions by means of a detailed SFL-informed discourse analysis to gain a better understanding of online discussion within the context of postgraduate study in public health. In doing so it responds to Salmon's recommendation to focus on 'natural or unstructured use of CMC' in order to develop 'basic models of understanding' (2002, p 199, quoting Newman et al, 1996). This study examines the structure of the discussions in order to propose a curriculum macro-genre, as well as considering spoken and written genres and genre fragments embedded in the macro-genre. It considers the influence of the mode (online, asynchronous, permanent, absence of visual contact between participants and so on) on structure and interaction. It teases out the

complex interrelationship between the public, social nature of the interaction, individual and communal identities, the academic context and the construction of knowledge. It describes the role of both moderator and students in this interrelationship. To provide a more robust description, it correlates participant experiences and understandings with evidence derived from the discourse. In the process I reflect on the analytical tools used and the insights they provide. Finally, wherever possible I make suggestions to improve design and moderation in online environments such as this one, with the caveat that online discussions are sensitive to context, field and task design and that solutions need to be nuanced rather than assumed to be applicable to all situations.

Chapter 3 Theoretical framing and research design

Previous chapters have indicated that the focus of my research is the effect of the technological mediation of learning on community (interpersonal relationships) and on the construction of knowledge. I argued that the technology is not deterministic and that its affordances are not neutral, having the potential to modify the enactment of teaching and learning when compared to more familiar face-to-face modes. I proposed that, given research approaches used to date have produced contradictory and incomplete findings and have generally not examined actual communication online, a discourse-based methodology should be used instead. Such an approach might refute, corroborate or extend existing findings, or may give rise to completely new insights. I also noted the benefits of using a robust, validated linguistic theory to inform such discourse analysis. Systemic Functional Linguistics (SFL) both informs my understanding of the role of language in learning and teaching and provides a range of analytical tools. Thus the interplay of technology and education are viewed through a linguistic lens.

I start this chapter with the study design (Section 3.1), then in Sections 3.2 to 3.4 outline my main methodology (discourse analysis) and the particular variant I am using (SFL-based classroom discourse analysis). In Section 3.5 I introduce my analytical tool, SFL, after which I discuss aspects of the theory which I will be using in my analysis, including register, genre, APPRAISAL, NEGOTIATION and INVOLVEMENT (Sections 3.6 to 3.12). The remaining sections cover details of data collection and interpretation as well as the analysis of survey data.

3.1 Study design

The study is situated at the intersection of education, information and communications technology (ICT) and linguistics. Its educational context is postgraduate coursework in the disciplinary field of public health at an Australian university. Specifically, it involves assessed, content-focussed asynchronous online discussions undertaken as part of both compulsory and elective units by on-campus as well as distance students.

A case study methodology has been selected for this study. It meets Cresswell's (1998) criteria of being bounded (p. 36) in time (one academic year) and to a lesser extent in place (the virtual space of the online courses). It is a 'within-site' study (p. 61), largely qualitative, exploratory and descriptive (p. 62), which employs multiple sources of information (p. 36). The case is used instrumentally to illustrate an issue, the effect of ICT mediation on learning and satisfaction; in

the data analysis I am looking for patterns which may be generalisable to other related contexts (p. 154).

Structurally, this study is more accurately described as a *nested* case study. The overarching case is of asynchronous online discussions in postgraduate coursework in the specific institutional context. Nested within it are three case studies, each of which is a discussion within a specific unit of study, referred to as Case 1, Case 2 and Case 3. These cases provide opportunities for comparison and contrast, both between and within cases. I have some understanding of the research site and had access to the discussions as they progressed but was not involved in posting to, moderating or assessing these discussions. In the online environment, I was virtually invisible.

Discourse analysis of the discussion text is supplemented by a quantitative structural analysis of posting patterns and survey data. The surveys gathered both quantitative and qualitative data; due to low response rates they are used for background information and corroboration only. The appendices contain sufficient data to support my analysis and discussion, for example unit descriptions, transcripts, survey results and diagrammatic representations of discussion structure.

3.2 Choice of informing linguistic theory

Systemic Functional Linguistics, as a theory of language which might be classed loosely as social interactionist, distinguishes itself in this way from nativist (language as inborn) and cognitivist theories of language.   First formalised by Michael Halliday, SFL situates and interprets language in its social context rather than as an abstract, context-free phenomenon. It is a functionally-based, semantically-oriented system that is 'multifunctional and multistratal' (Halliday, 1975, pp. 35-6). It is based on language functions: 'universals of human culture' (pp. 33) which are the starting point not only for ontogenetic (individual) but also for phylogenetic (societal) language development. Three overarching metafunctions (ideational, interpersonal and textual) constitute the adult language (see Section 3.5).

Both social constructivism, which strongly informs online discussion pedagogy, and my research methodology are premised on the interrelatedness of language and cognition. This nexus therefore represents one of the major conceptual frames for this research. Two of the ways in which SFL theorists have explored the link between language and learning is in studies of child language development and in the analysis of pedagogic discourse and texts. Regarding the former, a core premise of SFL is that the child progressively masters the mother tongue

through interaction with others, starting with pre-linguistic intersubjectivity, in which both cognitive (experiential) and interpersonal processes 'develop together' (Trevarthan, 1987, p. 193), although the interpersonal develops first (see also Halliday, 1975 and Painter, 1999). Regarding pedagogic discourse, it follows from the close inter-relationship of language and learning viewed ontogenetically that, when undertaking learning of any kind throughout life, including in higher education, a learner will need to develop lexico-grammatically in tandem. Thus the analysis of pedagogical discourse needs to be informed by a theory of language such as SFL which recognises the language-learning link. As Christie and Unsworth (2005) point out, SFL has been influential in many areas of educational theory, research and practice, including register and genre theory, analysing and describing the distinctive textual and linguistic forms of school subject areas (p. 229) and explicating classroom discourse (see Section 3.4). Thus Systemic Functional Linguistics was chosen to inform my discourse analysis since it not only accounts for the use of language in its social context and its intimate connection with learning but also provides a robust analytical tool which is extensively validated, repeatable and well represented in studies of teaching and learning.

3.3 Analysing discourse

Recognising online discussions as discourse necessitates a research methodology which might be broadly termed discourse analysis. Discourse analysis of spoken or written language has been undertaken from a range of theoretical viewpoints, in a range of contexts and for a variety of purposes, and may be based on a specific theory of language in use – or none at all. In the following sections I briefly present core concepts in discourse analysis, critical discourse analysis and conversation analysis, mentioning only the most influential theorists in each case.

3.3.1 Discourse Analysis

Discourse analysis (DA) rationales and procedures have been canonically set out by Gee (eg 1999). Language, rather than simply exchanging information, serves also (and perhaps more importantly) 'to scaffold the performance of social activities... and to scaffold human affiliation within cultures and social groups and institutions' (1999, p. 1). In parallel with SFL theories, he sees language constituting social processes and being in turn constituted by them (p. 11) and distinguishes between discourses (language in use, for example conversations) and Discourses (socially accepted ways of using language and all other forms of semiosis (p. 17, p. 25)). The latter involves situated identities, ways of performing and recognising them, ways of coordinating and being coordinated and characteristic ways of acting, interacting, valuing and

engaging in a range of other behaviours (p. 38.) Discourses arise, are transformed, hybridise and die; individuals engage in multiple Discourses. Gee does not suggest an underpinning linguistic theory or analytical tool.

3.3.2 Critical discourse analysis, academic discourse and online learning

Whereas the political dimensions of DA are implicit in Gee's account, they are far more explicit in Critical Discourse Analysis (CDA). Critical discourse analysts focus on the 'relationship between language, ideology and power' and 'between discourse and sociocultural change' (Eggins and Slade, 1997, p. 58). Discourse practices reproduce social relations and structures (Fairclough, 1989, pp. 162-3). We need to go beyond a 'natural attitude towards language' in order to reveal the 'precise mechanisms and modalities of the social and ideological work of language' (1995, p. 70). For Fairclough, textual analysis 'presupposes a theory of language and a grammatical theory'; SFL is a 'congenial theory' for CDA.

Critical Discourse Analysis has been particularly useful in exposing issues surrounding identity formation, culture and academic literacies in pedagogical contexts, including online learning. According to Fairclough (1995, p. 220), 'educational practices themselves constitute a core domain of linguistic and discursive power and of the engineering of discursive practices' leading to the 'inculcation of particular…social…identities' . This applies no less in higher education than in other educational sectors. In the process of academic writing and when participating in learning, 'self-identities' as writers and learners are 'discursively constituted' by and for learners (p. 229). Further, online discussions are sites of 'potential multinational and multicultural participation' currently dominated by print and oral linguistic conventions and cultural norms 'associated with English-speaking societies' (Goodfellow, 2004, p. 380).

Discourse practices in higher education are complex, inconsistent and undergoing change. Traditional academic discourse is becoming hybridised with more informal, colloquial registers (Fairclough 1995, p. 230); online discussions certainly appear to exemplify this. Fairclough sees this informality as part of a 'general rejection in contemporary societies of elite, professional, bureaucratic, etc. practices, and a valorization of ordinariness, naturalness', 'being oneself', part of the 'conversationalisation of public discourse' and 'informalisation of society' (p. 231) occurring in parallel with the 'marketisation' of higher education.

In spite of the prevalence of multimedia generally, online learning in higher education is still predominantly *text-based*: communication still occurs mainly through asynchronous text exchanges (Goodfellow, 2004, pp. 379-80). Lea (2005) reminds us that the critical importance

of discourse to participation in higher education is rarely addressed by proponents, as noted in Chapter 2 with respect to online discussion research. Practitioners should 'examine the ways in which different language practices might contribute to marginalization and exclusion from a community of practice in … higher education' (pp. 191 – 2). This brings into question the 'benign view of the novice student gradually moving towards full participation in an academic community of practice and engaging in writing practices similar to those of established members of that community' (pp. 193).

On a micro level, Fairclough (1995, p. 9) sees a tension between 'repetition and creation' of text, manifest in 'varying degrees of homogeneity and heterogeneity of textual forms and meanings'. In the present study, repetition involves drawing on familiar models of written academic texts and creation refers to their recontextualisation in various forms in online discourse.

Although my analysis is not overtly framed as *critical* discourse analysis, it shares with Fairclough, Goodfellow and Lea a critical focus on the linguistic enactment of learning and teaching. Some of CDA's insights resonate with my findings, particularly the effects of the informalisation of academic discourse, the implications of written texts embodying ambiguous, ill defined and emerging genres and the creation and play of identity and power.

3.3.2 Analysis of conversational language

I noted in Chapter 2 that researchers had described online discourse as embodying features normally associated with both written and spoken language. To explore this further, my analysis will take cognisance of analyses of conversational language. Most significant amongst these is Eggins and Slade (1997). In their study of informal, spontaneous casual conversation, they identify and describe two different structures: 'chat' and 'chunk'. The highly interactive *chat* segments, characterised by rapid turn-taking, are amenable to microstructural analysis, especially mood and speech function (p. 229), but not genre analysis (p. 266). Extended turns by one speaker (*chunks*) display different types of, and more predictable, internal structuring, which lends itself to macro-structural analysis. The genres identified in 'chunks' of casual conversation include narrative, anecdote, exemplum, recount, observation/comment and opinion (see Appendix 9 for their generic structure). These genres occur in written mode as well as casual conversation, but in the latter they are subject to much greater variation in sequencing, may be derailed or aborted and may display recursive stages (Eggins & Slade 1997, p. 234). The description above resonates with the exchange structure of online discussions

which, while they are certainly not *casual* conversations, share the latter's complex 'chat and chunk' structure, with identifiable written text-types or genre fragments embedded in a conversational matrix (as described in Chapter 4). Eggins and Slade concluded that different analyses were needed for each component (p. 310). These analyses are then combined to provide a more complete description (1997, p. 230).

3.4 Analysing classroom discourse

The value of researching the role played by language in learning is increasingly being recognised. As Coffin and O'Halloran (2009, p. 311) state, '[d]evelopments in linguistic theory have shown the educational potential of systemic analysis of classroom discourse and disciplinary language use'. Examples of such analyses include the early years of schooling (Painter, 1985; Torr, 1993), the development of grammatical metaphor in academic and technical genres (e.g. Derewianka, 2003; Ravelli, 2003; Kappagoda, 2005) and spoken classroom discourse in primary and secondary schooling (notably Christie e.g. 2002). Christie's work is particularly relevant to the present study in that she proposes curriculum macro-genre structures which inform my model in Chapter 4. Findings from classroom discourse analysis have found practical applications in pedagogy, for example scaffolding learning in primary school science by toggling between commonsense and technical explanations (Gibbons, 2006, likewise Butt, 2006). In a secondary mathematics education context, O'Halloran (2004) uses SFL-based analyses to demonstrate class and gender-based differences in classroom discourse, particularly an orientation to interpersonal at the expense of ideational meaning in working class and elite female classrooms and sometimes alarming levels of interpolated disruptive genres in the former.

Many SFL theorists are motivated by concerns for social justice. The attempt to address differing levels of familiarity with valued textual structures led to the 'genre-based' pedagogy, a 'visible and interventionist' approach with 'a relatively strong focus on the transmission of identified discourse competencies' to empower currently 'disenfranchised' groups (Martin, 1999, p. 124), and needed by learners (arguably including even the more able) as they shift to higher and more diverse educational contexts. The relevance of examining pedagogical discourse does not stop at the end of secondary school, particularly given the changing demographics of university entrants, the formal training requirements of workplaces and the rise of new technologies.

These considerations provide a strong rationale for basing analysis of the discourses of teaching and learning on SFL. Such analysis has until now mainly focused on face to face classroom interactions or written texts (see also Lander 1994). There are few studies where these tools have been applied to ICT-mediated learning; exceptions have been discussed in Chapter 2.

3.5 Systemic Functional Linguistics

I noted above that discourse analysis is often undertaken without reference to, or with merely a nod in the direction of, a theory of language. However, as Halliday points out (Halliday, 1989, p. xvii)

> *A discourse analysis that is not based on grammar is not an analysis at all, but simply a running commentary on a text ... meanings are realised through wordings; and without a theory of wordings – that is, a grammar – there is no way of making explicit one's interpretation of the meaning of a text.*

Basing discourse analysis on a theory of language in use, and so language in context, brings rigour, an analytical matrix and a measure of objectivity to the analysis. As Coffin et al (2005a, p. 466) point out, SFL 'provides analytical tools for systematically analysing spoken and written interactions of 'texts' in terms of the relationship between particular aspects of the context (such as the mode of communication and the roles adopted by interactants and the overall structure of the interaction and patterns of language use'. SFL 'offers explicit and 'delicate' linguistic descriptions of the way in which language is used to achieve a range of communicative ... goals', including pedagogical ones.

Admittedly there is still a measure of interpretation involved:

> *It is obvious that an exegetical work of this kind, whether ideological, literary, educational or anything else, is a work of interpretation. There is no way of turning it into an algorithm, of specifying a series of operations to be carried out that will end up with an objective account of a text – still less of the culture by which it was engendered.... even the first step, the analysis ... in terms of grammar, is already a work of interpretation.* (Halliday, 1989, p. xvi)

SFL theory, in attempting to account for the complexity of systems of language, is itself complex, allowing for multiple perspectives on the general concept of meaning in social and cultural contexts. It is both impossible and inappropriate to address this complexity here.

Instead I provide below a brief description of the salient features of SFL that have relevance to my study, and which are further explored and applied in the relevant chapters, before describing in more depth the key system that informs my study, the system of APPRAISAL.

The function of language is "to make sense of our experience, and to carry out our interactions with other people" (Halliday & Mathiesson, 2004, p. 24). A core tenet of SFL is that language in social activity realises three kinds of meaning simultaneously. These meanings are referred to as metafunctions and comprise the ideational, interpersonal and textual (Halliday, 1994). The *ideational* metafunction, divided into experiential and logical components (p. 29) is glossed as reflection, construing 'all that goes on around us, and also inside ourselves' (Halliday & Matthiessen, 2006, p. 511). The *interpersonal* metafunction (p. 30), glossed as language as action, enacts our personal and social relationships with others (p. 29). Finally, the *textual* metafunction has an enabling or facilitating function, organising text and discourse and making the other two metafunctions possible (p. 30) (see Figure 3.1). As applied to the analysis of online discourse, the interpersonal metafunction relates to relationships between participants and the building of community, the ideational metafunction to information and knowledge exchanged and/or constructed and the textual metafunction to the organization of online discourse, its genre(s) and the way it enables the other two metafunctions.
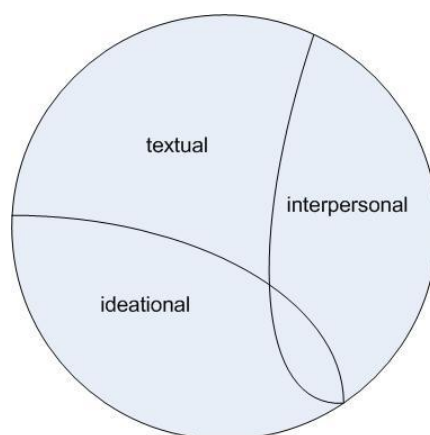
Figure 3.1 Ideational, interpersonal and textual metafunctions (redrawn from Martin and White 2005: 8)

A second core concept of SFL is that language is modelled as a tri-stratal system (Halliday, 2004; Eggins, 2004; Martin & White 2005). The three strata are *discourse semantics*, as systems of meanings that function at the level of whole text (Martin, 1992; Martin & Rose, 2007), *lexico-grammar* as systems of meaning at the level of clause (Halliday, 1994) and *phonology and graphology*, systems at what is referred to as the expression plane, that is the sounds and graphic systems of the language. This conceptualisation of language is shown in

Figure 3.2. My focus in this study will be on the discourse-semantic stratum, representing the more abstracted stratum which is realised in patterns of lexico-grammatical choices, which are in turn realised in patterns of phonological and graphological choices (Hood, 2010, p. 23). Data are analysed in terms of patterns of ideational, interpersonal and textual meanings in the flow of interactions in online discussions.
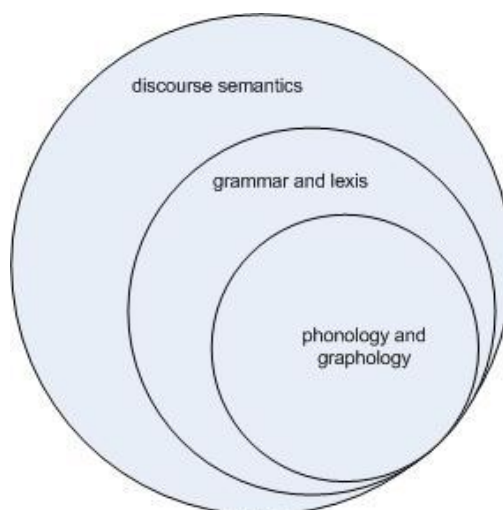
Figure 3.2 Language strata (redrawn from Martin & White, 2005, p. 9)

The perspective on language outlined above is referred to as the 'hierarchy of realisation', where the relationships across the strata are in terms of levels of abstraction. It is one of a number of hierarchies constituting SFL theory, including the hierarchy of *instantiation* (which refers to elements of the system present in the text) and the reciprocal hierarchies of *individuation* and *affiliation* (which accounts for individual selections from the system). I discuss these in turn below.

The concept of *instantiation* accounts for the specific *selections* from the *system* (generalised potential) instantiated in a text, in other words the 'relationship of a single text to the whole system of the language' (Hood, 2008, p. 352). This has been explained (e.g. Halliday, 1991, p. 9) using the analogy of climate and weather, with climate representing the *systems* of potential meanings (seen from a distance , as it were) and the weather on a particular occasion standing for individual *instances* (*texts* incorporating specific selections), in other words seen close up. Each instance of language use reflects and also shapes the system in much the same way that the temperature on one day subtly changes climate statistics.

Martin (2010, p. 17) describes instantiation as a 'scale of potentiality' from system through genre/register, text type, text and finally to individual reading of the text (Figure 3.3). As Martin explains, all strata and all metafunctions instantiate. So an instance of text is an

instantiation at the strata of genre and register, and of systems at the strata of discourse semantics, lexico- grammar and phonology/graphology (represented at Martin, 2010, p. 22). The opposite end of the cline to 'system' is 'reading', that is the subjective meaning-making which occurs when the text is read, which is itself dependent on the 'social subjectivity' of readers (Martin & White, 2005, p. 25) as well as other contextual and co-textual factors (Hood, 2010). This may be regarded as a recontextualisation. The concept of instantiation is relevant to this study, in that discussion texts selectively realise the potential of the system, specifically at the level of text type. Further, it is referenced in connection with compliant and resistant *readings* of texts resulting in affiliation and disaffiliation and even conflict in online discussions (Chapter 6).
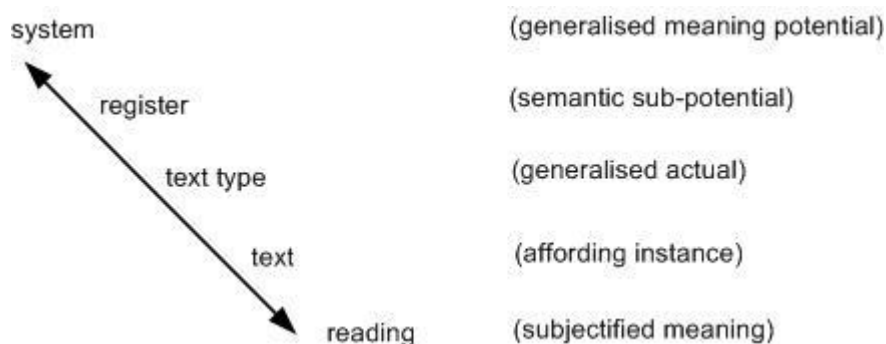
Figure 3.3 Cline of instantiation (redrawn from Martin & White, 2005, p. 25)

An important related concept is *commitment*. As the concept of instantiation suggests, any *single instance* of text is an actualisation of meaning in relation to a *generalised system* of language and functions across all metafunctions (p. 353). *Commitment* is the 'degree of meaning potential instantiated in one instance or another' (p. 356) and accounts for the 'degree of specificity of the meaning instantiated in a text' (Martin, 2010, p. 20). The concept is exemplified in Hood's (2008) analysis of a didactic re-instantiation of a text as notes and summary. Commitment may be realised by higher or lower levels of generalisation (including classification, meronomy and role/incumbent), abstraction (which de-specifies meaning in different ways), grammatical metaphor, lexical metaphor and the infusion/defusion of lexical verbs as well as attitudinal meaning. Hood proposes a cline of commitment of attitudinal meanings, from inscribed attitude to provoked attitude to invoked attitude, with single inscriptions committing 'evaluative meanings in a less committed way than an accumulating prosody of co-articulating instances' (p. 362). She reminds us of Martin and White's (2005) categorisation of means for establishing prosodies of interpersonal meaning: by intensifying instances, saturating a phase of text with multiple instances and by 'dominating a phase with

expressions of attitude at a higher level theme position' (p. 362). In my analysis, I track instances of GRADUATION working to increase commitment (and thus affiliation, see below and Chapter 6).

Another core concept is that of the reciprocal clines of *individuation* and *affiliation*. As noted, language is a system which contains all the possibilities the specific language makes available. A text consists of choices made (and not made) by an individual from the system of the language. Each of the user's choices is significant in the face of possible alternative selections. Eggins (2004, pp. 15-16) exemplifies this in terms of lexical choice: instead of the technical term 'progeny', a speaker may choose *kid, darling, son, brat* and so on, with each of these realising a different meaning potential. Choices may also be made at the level of phonology (*cat* vs *cut*, for example), graphology (capitals or lower case) and grammar (for example choosing between the passive and active voice). At the discourse semantic stratum, a choice may be made with respect to meaning, for example to employ the resources of JUDGEMENT in a given situation, or to refrain from doing so. Users may also make choices at the level of genre, for example to structure a text as a (two-sided) discussion or a (one-sided) exposition.

Thus *individuation* specialises the meaning potential (or sub-potential) of a culture to the *users* of language (Bednarek, 2010, p. 243). Bernstein (2000) theorises this as the relationship between the *repertoire* that an individual mobilises to recognise and realise the appropriate discourse and the *reservoir* of meanings in a culture. However, individuals have 'differential access to the linguistic resources of the culture' (Knight, 2010, p. 36, also Hasan, 1996). This is in turn implicated in differential access to educational opportunities (Martin, 2010, p. 24). The concept of *individuation* is central to accounting for differences in linguistic patterns in posts made by different participants in my study, some of whom may have had less exposure than others to the language (as well as cultural) resources required for effective participation. It also helps account for the play of individual (as opposed to communal) identity in my data (see Chapter 6).

The concept of *affiliation* is in a sense the opposite of individuation, and is used to account for communal identity. It accounts for the ways in which feelings are 'deployed to align readers into overlapping communities of attitudinal rapport' (Martin, 2004, p. 323). APPRAISAL positions us to feel – and through shared feelings to belong (p. 326). However, while affiliation involves feelings, feelings are always *about* something (p. 337), which leads to the further theorisation of affiliation as capturing 'the logogenetic patterning of interpersonal + ideational *couplings* (across metafunctions) in text' (Knight, 2010, p. 42). Additional components of affiliation are

bonding (Stenglin, 2004), *commitment* (see above) and *iconisation* (Martin, 2010, p. 19)*.* I note that these concepts have emerged comparatively recently in SFL theory and as such are subject to slightly differing conceptualisations. I also note that I am not so much interested in further theorising these concepts as in working with them in a pragmatic sense to understand my data. Couplings can be viewed as offering the *potential* for affiliation; this may or may not be taken up by interlocutors. I use and further theorise the concept of affiliation when I consider the possible membership of discussion participants in a community of practice, centred on the tasks and indeed mission of public health professionals (see Chapter 6).

3.6 Register

Given that SFL is a theory of language *in use*, it is important for it to account systematically for the relationship of language to its context. This has been theorised by 'project[ing]' the three metafunctions 'onto social context as a resonating external model of language use, involving the categories field, mode and tenor' (Martin & White, 2005, p. 27). Taken together, these are referred to as *register* (Martin, 1992). Thus register is described as the 'semiotic system constituted by the contextual variables field, tenor and mode' (Martin, 1992, p. 502), which work together to achieve the text's goal. Each of these variables shapes the genre in specific ways, and each correlates with one of the metafunctions constituting language (see Figure 3.4). Register operates at a higher level of abstraction than discourse semantics, since it realises 'patterns of discourse patterns' (Martin & White, 2005, p. 27). Although they are described separately below, realisations of field, tenor and mode are interrelated in any text.
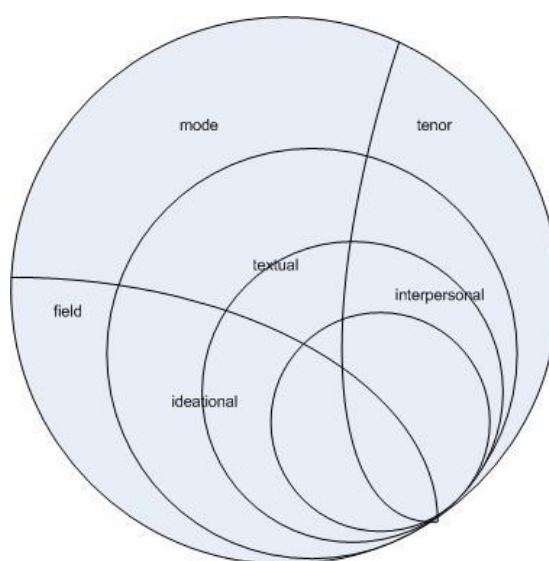
Figure 3.4 Metafunctions in relation to field, mode and tenor, superimposed on strata (redrawn from Martin, 2010, p. 13)

Field has been described as the 'topic or focus of social activity' (Coffin, 2006, p. 29), the 'nature of the social action taking place' (Martin & Rose, 2008, p. 11) and 'sets of activity sequences oriented to some global institutional purpose' (Martin, 1992, p. 536), with the participants, processes and circumstances involved (Martin, 1997, p. 10). It is mainly realised through the ideational metafunction. Taxonomies of various kinds structure participants; fields (for example technical/specialised, domestic, educational, administrative) and their lexis may be located on a continuum of commonsense to uncommonsense (Martin, 1992, p. 544). In my study, the field is ostensibly the professional and technical knowledge and procedures of public health, but as I show in Chapter 5, the field is also that of being on online learner in the specific institutional context, leading to fundamental differences between the types of communal identities established online.

The *mode* variable accounts for the role language plays in 'realising social action' (Martin, 1992, p. 509), and is realised mainly through the *textual* metafunction. It is concerned with 'symbolic reality', with texts as 'constructing social reality'. As such it is oriented to both interpersonal and experiential meaning (p. 509). Mode accounts for the way in which channels of communication affect interaction possibilities: opportunities for feedback (monologic or dialogic texts), visual or aural, one-way or two-way. The two extremes of this cross-classification are writing (no visual or aural contact) and face to face conversation (two-way visual and aural contact), with numerous intermediate possibilities, including online discourse. Various settings of visual or aural contact determine 'interpersonal distance', realised by a variety of grammatical features, including NEGOTIATION, SPEECH FUNCTION, TAGGING, VOCATION and MOOD (p. 516). Mode also relates to the extent to which texts *accompany* or *constitute* social processes ('semiotic distance', Martin, 1997, p.12), with sub-classification including the degree to which the experience or content is shared. Consideration of mode is central to my study. As Martin and White point out (2005, p. 28), the 'key [mode] variable' of the 'complementary monologue through dialogue cline ... is sensitive to the effects of various technologies of communication on the kind of interactivity that is facilitated'. In my study I account for the impact of mode (asynchronous, online, public) on the interaction (interpersonal meaning) and knowledge construction (ideational meaning) which occurs in the discussions.

Tenor refers to the social roles of participants and the negotiation of (possibly shifting) relationships between them, and between them and others (Martin, 1992, p. 523; Martin & Rose, 2008, p. 11). It is mainly realised by the interpersonal metafunction. Martin and White identify power and solidarity as 'two key tenor variables' (2005, p. 29), while Coffin (2006, p.

29) refers to these as status and solidarity. Further, Martin and White describe 'generation, gender, ethnicity, capacity and class' as the 'five most general factors which position us in relation to tenor' (2005, p. 29). Concerning power, Martin and White, quoting Poynton (1985), consider *reciprocity of choice* to be one critical variable. This relates to whether participants in an exchange 'hav[e] access to and tak[e] up 'the same kinds of choices' (p. 30), for example being able to address each other in the same way, in which case they have equal status and power, or whether available choices are unequal, or in fact, going beyond reciprocity, different in kind. As Martin and White point out (2005, p. 30), the teacher-student relationship is commonly one which facilitates non-reciprocity, traditionally representing dominant and deferential positions. The concept of *solidarity* concerns the negotiation of intimacy and distance between interactants. The greater the intimacy, the more meanings available for exchange and the less explicit texts interactants need to be to exchange them. Of particular interest to this study is whether the supposed 'democratisation' of online discussions leads to a flattening of such power differentials when compared to face to face classrooms in similar institutional contexts. Analysis of tenor relations expressed in the discussion texts (between peers as well as with the instructor) may assist in answering this question. Relatedly and more generally, tenor relations are implicated in the construction and maintenance of online communities of various kinds.

3.7 Genre

Genre theory within SFL accounts for the more or less regular and predictable (but not entirely determined) texts we encounter in everyday life or work as members of a society. Genre is theorised as 'a more abstract level of patterning' integrating 'configurations of field, tenor and mode selections' (Martin & White 2005, p. 32; see Figure 3.5) as systematically related social processes' (Martin, 1992, p. 495). It is further defined as a 'staged, goal-oriented social process realised through register' (p. 505), implying that genres realise a social purpose within the culture in which they occur (Coffin, 2006, p. 28). These concepts are central to the ensuing account of the genre(s) of asynchronous online discussion. Specifically, online discussions, as a relatively new, still emerging and as yet not fully described genre, represent a configuration of asynchronous, public, text – based *mode* (with ambiguities surrounding its monologic/ dialogic and written/spoken nature), peer to peer and (possibly flattened) teacher-taught *tenor* relations and a *field* which incorporates both being and online learner and the profession of public health. It also incorporates previously described spoken and written genres (or genre fragments).
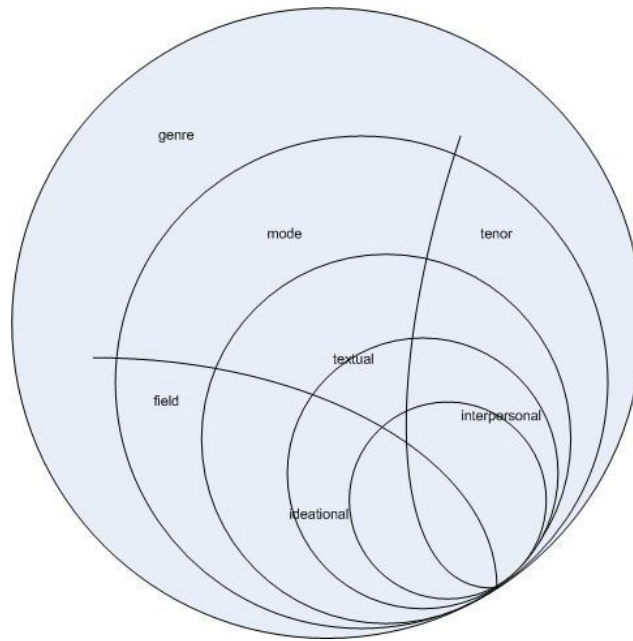
Figure 3.5 Register recontextualised by genre (redrawn from Martin & White, 2005, p. 32)

3.7.1 Pedagogical genres

Over several decades, SFL-based descriptions of genres have been gradually increasing in number and sophistication; this is particularly true of genres occurring in educational contexts. Early descriptions of factual and narrative genres (for example reports and recounts) were essentially ideationally-oriented and constituency-based as part-whole structures. More recent descriptions suggest metafunctionally-linked periodic and prosodic patterns for modelling structure ideationally and propose on occasion non-linear (ie orbital) structures. Topological approaches are being used to map genres intermediate to archetypical genres and syntagmatic relations are identified between genres which combine to form longer texts (including logico-sematic relations and projection) (Martin & Rose, 2008).

Describing genres that are elemental in educational contexts provides a basis for a visible pedagogy, with the potential to empower *all* students to write socially valued texts. One example is writing school science texts, which are abstract and imbued with metaphor. For those students who do not know these genres on the basis of previous exposure or guided interaction, whether in the home or in earlier school years, explicit teaching is necessary (Martin & Rose, 2008). Without this, genres act as a filtering device, rationing access to higher levels of education or employment. This raises some interesting questions for participation in genres required for postgraduate coursework. Students in such courses are mainly required to read textbooks and scholarly papers yet are often required to write quite different genres, for

example expositions and discussions, hence the need for explicit academic literacies training (see also Coffin, 2006, p. 168). Students in such courses also need to engage in a range of spoken genres (e.g. participating in group presentations and tutorials) which are only sometimes explicitly taught or modelled. Asynchronous online discussions resemble these academic genres in some respects but are rarely explicitly taught as a genre, potentially leaving participants unsure how to participate.

3.7.2 Genre shifts

Genre descriptions have on occasion been understood as implying rigidity and fixedness in terms of both individual and societal deployment, at odds with modernist 'ideals' of, for example, 'personal choice, individualism ... [and] ... freedom' (Martin & Rose, 2008, p. 232; p.258). These charges seem unfounded, since genre descriptions are potentials only and considerable variation can, and does, occur. On an individual level, rather than being a linguistic straitjacket, genres may be used creatively and flexibly. On a societal level, since genres are shaped by the society in which they occur and in turn shape it through discourse practices, they can and do change as social contexts (field, tenor and mode) change. Texts instantiate the system and in turn modify it, if ever so slightly. Genres are 'dynamic open systems' and as such 'constantly evolving' (Martin, 1992, p. 503). Yates and Sumner (1997) quoting Bakhtin describe genre evolution in the new technological context as a balancing of 'centripetal' and 'centrifugal' forces, a balancing of forces wanting to radically change the way we communicate with the forces of communicative conservatism. Some commentators fear that genres are changing too quickly for many to learn and enact them, potentially leading to communication breakdowns (Yates and Sumner, 1997, p. 3). This is certainly the tone of the 'moral panic' (Bennett, Maton & Kervin, 2008) surrounding new technologies, the pace of change and generational differences in technology take-up (not shared by Yates and Sumner). This reminds us of the need, noted earlier, to explicitly model genres used in educational contexts, in the interests of equity.

Of greater relevance to the present study is the question of *specific ways* in which genres change. Some suggestions (both within and outside SFL) relate to language at the clause level or below only. Hewings and Coffin (2007) described as *adaptation* the process whereby students in online discussions adjusted their pronoun use (compared to genres commonly represented by assignments), to maintain solidarity. Working outside the SFL tradition, Baron (1998) makes sense of the seemingly schizophrenic language of emails by describing them as *creoles*. Other writers eg Yates (1996) speak of the 'hybrid' nature of electronic language.

Turning now to whole texts, the issue of how genres change or how new genres arise is complex. Martin and Rose (2008) show that a text may have features of more than one genre and may be closer to one of these genres than another, inviting a topological approach to describing them (p. 240). Alternatively the configuration of participants, tense, modality, activity sequence, attitude, cause and phasing may indicate a completely new genre (p. 240), as in the case of the Policy genre identified by Jordens (2002). As Martin and Rose remind us, a 'mixed genre' is contradictory and a better term is 'mixed texts' which 'instantiate more than one genre' (2008, p. 242). Such mixed texts, if they occur often enough in a society, may become accepted as new genres. Examples of genre change are the transformation of the news story from a linear recount to an orbital structure (White, 1997) or the 'greening' of the genre of school geography/science textbooks (described by Martin & Rose, 2008, p. 242). I argue that asynchronous online discussions represent mixed texts embodying elements or fragments of other genres, possibly normalised and accepted more generally in social than in educational interactions at this stage, but which may become accepted in time as a new genre (see Section 3.7.3).

3.7.3 The concept of macrogenre

A macrogenre consists of individual elemental genres arranged in a purposeful and predictable manner. Martin and Rose (2008: p. 219), for example, demonstrate that textbooks are 'macrogenres ...[that] ... link reports, explanations, procedures, procedural recounts and expositions in an intricate logical series' via logico-semantic relations (Martin, 1997, p. 16). Similarly Christie (2002) described sequences of classroom instruction as curriculum macrogenres, which can be linear or orbital, although macrogenres also exist outside pedagogical contexts. This point is taken up in Chapter 4, where I propose a curriculum macrogenre for online discussions.

3.7.4 Asynchronous online discussions and genre

Asynchronous online discussions in educational settings could be described as a (relatively) new and possibly still evolving genre (or macro-genre) which has arisen in response to a new social purpose (teaching and learning in a virtual context). This genre is being continuously constructed by its participants in multiple contexts of use, which may lead in time to stability, as noted, assuming all register variables remain constant (which they may not). Centrifugal forces acting on this genre 'in becoming' include the affordances of the technology and the practices of social media, while centripetal forces include reliance on known academic and

workplace text types. As Yates and Sumner conclude: 'the affordances provided by the technology ... are combined with social practices and existing genres to construct a text which fits the social context as understood by the discourse community' (1997, p. 8). This represents 'a democratisation of genre production' (p. 3). In Chapter 4 I use the concept of genre to describe written-like texts embedded in the discussions and the concept of macro-genre to account for the structure of online discussions.

3.8 Interpersonal meaning: an overview

The interpersonal metafunction within SFL, as noted, is concerned with the negotiation of social relations. It includes the three major systems of APPRAISAL, NEGOTIATION and INVOLVEMENT, which I discuss in turn below. Interpersonal meaning-making is central to my analysis as it is implicated in relations between 'teacher' and 'taught' and between peers and the building and maintenance of communities of various types, as well as impacting the construal of ideational meaning in the discussions.

Evaluative language serves to construct and maintain relations between the creator and recipient of the text and functions to enable monologic narrative to be interactive (i.e. heteroglossic) (Thompson & Hunston, 2000, p. 13). It reflects (and in turn builds up) the value system of writers and their communities (pp. 6 - 8). Building relations and transmitting values brings with it the question of aligning others to a viewpoint: persuasion (if not manipulation) (p. 10). This latter concept is critical to an understanding of bonding, affiliation and solidarity in online discussions, which I discuss in Chapter 6.

3.9 APPRAISAL

APPRAISAL accounts for as 'the subjective presence of writers… in texts as they adopt stances towards both the material they present and those with whom they communicate', including positioning of the reader to be part of a community of shared feelings, tastes and values (Martin & White, 2005, p. 1). It is further concerned with the writer's (or speaker's) construction of an authorial identity, alignment or disalignment with 'actual or potential respondents', construction of an 'intended or ideal audience' (Martin & White, 2005, p. 1) and the enactment of alignment or solidarity with it.

The system of APPRAISAL consists of three sub-systems which account for emotional, aesthetic and judgemental responses (ATTITUDE), the negotiation of opinions in discourse (ENGAGEMENT) and resources to allow these meanings to be graded (GRADUATION). It is represented in Figure

3.6, using standard SFL representational conventions, with square brackets indicating that the choices are **either/or** and curly brackets to show that **simultaneous** choices can be made, in other words these options may be co-construed (Hood, 2010, p.25). In the following sections I provide further detail concerning the main components of the APPRAISAL system and their realisation illustrated where possible with examples from my data.
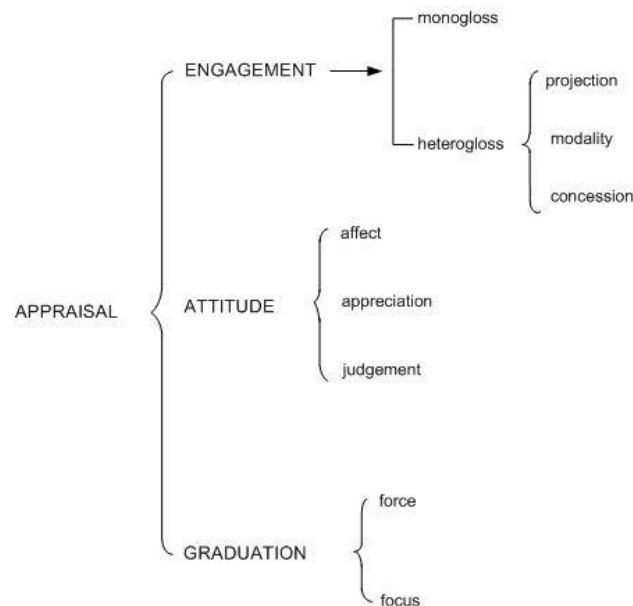
Figure 3.6 The APPRAISAL system (redrawn from Martin & Rose, 2007)

3.9.1 APPRAISAL 1: ATTITUDE

The system of **ATTITUDE** involves, as shown above, three semantic regions: **AFFECT** (positive or negative emotional reactions)**, JUDGEMENT** (of qualities and behaviour) and **APPRECIATION** (aesthetic or other quality of a phenomenon or event). Simultaneous choices may be made from these three sub-systems. All three categories of ATTITUDE can be realised positively or negatively and all are gradable, as described under GRADUATION, below. Figure 3.7 shows the sub-categories of ATTITUDE.
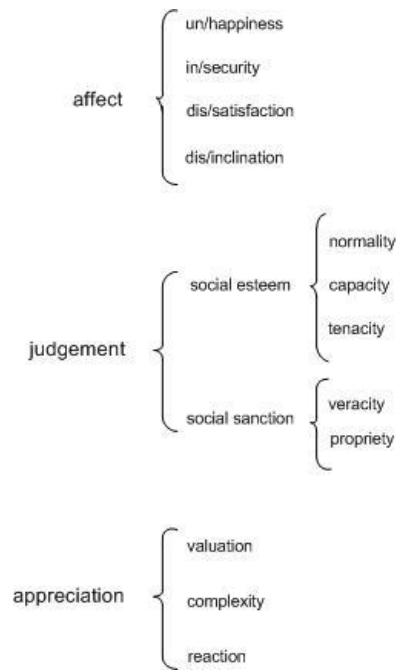
Figure 3.7 Sub-categories of ATTITUDE *as affect, judgement and appreciation*

Before moving to specific subcategories and examples, some general issues relating to attitudinal meaning as a whole need to be raised. The first concerns the distinctions between inscribed, infused and invoked attitude. Inscribed attitude is 'expressed directly or explicitly' and is 'identified on the grounds of polarity and gradability' (Hood, 2010, p. 75). In this example of APPRECIATION: valuation

>   *... an **effective** strategy*

effective has positive polarity and can be graded through pre-modification: a ***very* effective** strategy (relying on the evaluator's own 'scale of values') or a ***more* effective** strategy (a relative evaluation; Hood, 2010, p. 76). *Invoked* attitude is expressed 'indirectly or implicitly' (p. 75) and may be more susceptible to reading position than inscribed attitude. Infused attitude does not make use of pre-modification but instead combines graduation with the evaluative term into one lexical item, thus: a ***powerful*** analysis combining *strong + more* (p. 77). Secondly, patterns in attitudinal lexis may vary according to disciplinary context, for example more AFFECT and JUDGEMENT are found in story genres and APPRECIATION is more common in social sciences writing (pp. 80-1).

AFFECT

Since AFFECT deals with positive and negative feelings, the presence, frequency and distribution of these resources in texts will provide evidence of the writer or speaker's emotional state,

may be intended to position others to respond in certain ways and will set the general emotional tone of the text. As Figure 3.6 shows, choices within affect are un/happiness, in/security, dis/satisfaction and dis/inclination.

Patterns of AFFECT are important in my data as they allow me to track the possible formation and maintenance of a sense of community amongst participants and the degree to which all participants share responsibility for this enterprise. Comparing instances of inscribed versus invoked affect indicates the explicitness or otherwise of expressions of emotion. The discussion texts yield examples from most categories of AFFECT although, as I discuss in Chapter 5, instances are predominantly positive.

Examples of *un/happiness* from my data include:

> **Happy** *working together ...*

> *... **nice** to meet everyone*

In/security is mainly negative (disquiet) in my data, given the topics concern issues of health, sickness, epidemics and chronic disease and their causative agents:

> *What ... might you be **concerned** about?*

Dissatisfaction (ennui, displeasure) and satisfaction (interest, pleasure) are represented by, for example:

> *I am **interested** in your conversations ...*

> *I'm **intrigued ...***

> *I must say I am very **impressed** ...*

Dis/inclination (fear or desire) was commonly directed to future events (irrealis) (Martin & Rose 2007, p. 65), for example

> **Look forward** *to talking again in Module 2*

> *I **hope** a few of you still check in to answer ...*

Feelings may be positive or negative:

> *I **love** the way ...*

> *What ... might you be **concerned** about?*

They may also occur as a surge or a state (Martin & Rose, 2007, p. 64-5). Interestingly, a surge of emotion may also be realised textually in a way which imitates a phonological realisation, with the meaning underspecified:

> **Phew,** *that is it I think*

> **Wow** *– all of this on a Friday afternoon!*

The next distinction is between feelings which are ***in reaction to*** or ***directed to*** an external agency or an ***ongoing mood*** (Martin & Rose, 2007, p. 65). Examples of the former include:

> *I* **liked** *your clever ... analogy, gave me pause for thought.*

> *I am very much* **enjoying** *reading everyone's posts and thoughts ...*

Using the resources of GRADUATION, feelings may be located on a continuum from the highest to the lowest intensity, exemplified by Martin and Rose as liked/loved/adored (2007, p. 65), or in the case of my data:

> *I* **liked** *your clever ... analogy*

> *I* **love** *the way...*

As noted, there is no one-to-one correspondence of AFFECT and lexico-grammatical means of realising it. In addition to mental and behavioural processes (*I am* **looking** *forward ..*) and modification of participants and processes (*I'm* **intrigued***.., **Happy** working together*), it may also be realised as a modal adjunct:

> **Happily,** *you all posted to the same thread ...*

> **Unfortunately,** *[the hypothetical patient] is not doing too well right now ...*

Finally, in any analysis a distinction needs to be made between affect on the part of the author (***I*** *am* **looking forward** *...*) and that ascribed to another party (*What ... might* **you** *be* **concerned** *about?).*

APPRECIATION

APPRECIATION enacts our evaluation of natural and human-made objects and phenomena and covers our emotional **reaction** to them**,** our estimation of the merits or otherwise of their **composition** (relating to our 'view of order' (Martin & White, 2005, p. 57)) and our feelings as to whether something was worthwhile, a cognitive evaluation (**valuation**). As with AFFECT, all types of APPRECIATION may be positive or negative. In my analysis, APPRECIATION was only

occasionally applied to the contributions of others, being instead largely directed to the tasks, knowledge and mission of the field of public health. As such it was often coupled with ideational meaning, creating the potential for affiliation and the creation of communal identities, a point I take up with respect to Communities of Practice in Chapter 6.

As shown in Figure 3.7, r**eaction** is divided into 'impact' (glossed in Martin & White, 2005, p. 56 as 'did it grab me?') and 'quality' (did I like it?)

> *... a really **fascinating** area ... (reaction: impact)*

Composition covers both balance (did it hang together?) and complexity (was it hard to follow?).

> *Some of the press releases **strike the right balance** (balance)*

> *... a very **complex** process (complexity)*

Valuation is a cognitive judgement of the worth of a phenomenon:

> *.. an **effective** strategy*

> *An **excellen**t list ...*

> *... their **subversive** advertising techniques ... (negative)*

JUDGEMENT

JUDGEMENT construes attitudes to people and their behaviour and can be divided into judgements of social **esteem** and those oriented towards social **sanction**. The former category includes **normality** (how special and unusual someone is), **capacity** (how capable someone is) and **tenacity** (how resolute or dependable someone is) and is most commonly found in oral contexts, for example chat and gossip. Social sanction covers **veracity** (how honest someone is) and **propriety**, to do with ethical behaviour; the latter is most commonly found in written texts eg edicts, rules and regulations. Judgements of esteem are 'critical to the formation of social networks' (Martin & White 2005, pp. 52-53). As with AFFECT and APPRECIATION, JUDGEMENT can be positive or negative and can be graded up or down. Examples of JUDGEMENT types from my data are listed below.

Normality

> *This is a little **unusual** (negative, inscribed)*

Capacity

> *.. [you] have a **wide range of skills and experiences** (positive, invoked)*

Tenacity

> *... the **endless persistence and sheer determination** of numerous agencies worldwide .. (positive, invoked)*

> *A **bit quiet out there** for the last few days ... (negative, invoked, referring to participation)*

Veracity

> *... the **credibility** of Davies' statement ... (positive, inscribed)*

> *... **incorrectly claiming**... (negative, inscribed)*

Propriety

> *... the **'good guys'** of tobacco control .. (positive, invoked)*

> *I tend to think it is **unethical** to deny smokers access ... (negative, inscribed)*

I explore patterns of JUDGEMENT, specifically JUDGEMENT: social esteem, within communities of learners in Chapter 5 and patterns of JUDGEMENT: social sanction within communities of practice in Chapter 6.

3.9.2 APPRAISAL 2: GRADUATION

GRADUATION enables the grading of attitudinal meaning so that it is, for example, more or less positive, stronger or weaker, sharper or more diffuse. Meaning can be scaled up or down according to intensity or amount (FORCE) and according to the 'prototypicality and preciseness' of categorical boundaries (FOCUS) (Martin & White, 2005, p. 137). Attitudinal resources construe the degree of authorial commitment to a value position and aim to either align the reader to the value position or leave space for alternative views. FORCE 'interacts with ATTITUDE to either increase or decrease the 'volume' of that attitude', thus upscaling FORCE maximises authorial commitment, contracting space for other points of view (Hood, 2010, p. 114). Downscaling force indicates 'only a partial or attenuated affiliation with the value position' (Martin & White, 2005, pp. 152-3), making it 'less compelling ....and ...open to negotiation' (Hood, 2010, p. 115). Graduation is used extensively to describe the field of research when establishing a research warrant (Hood, 2010). Analysing for GRADUATION throughout my data enabled me to identify subtle grading of AFFECT and APPRECIATION in moderator evaluations of

student answers, sometimes not so subtle grading of JUDGEMENT with respect to the enemies of public health and nuanced COMMITMENT with respect to valued research in the field.

GRADUATION was first modelled by Martin & White (2005), as shown in Figure 3.8. Here, FORCE is further subdivided into assessments of degree of intensity (*intensification*) and amount (*quantification*). *Intensification* applies to qualities, processes or verbal modalities (e.g. it's *very* possible that ...). Scaling may be up or down, absolute or relative and isolating (separate item) or infused. *Quantification* refers to the imprecise rather than exact measuring of number (e.g. a *few* miles rather than *3* miles) as well as imprecise measurement of the 'presence or mass of entities according to such features as their size, weight, distribution' (p. 140) as well as extent in time and space. Quantification can be applied to concrete or abstract entities e.g. a *nearby* mountain, a *large* problem. FOCUS serves to grade categories which are in themselves non-scalable (e.g. jazz) and may be softened or sharpened (e.g. *real* jazz)) (pp. 137-8). For example:

> .. is a **real** *battle* ... (sharpening experiential meaning)

> What **kind of** *things might you be concerned about?* (softening experiential meaning)

> *Caused by ...* **some sort** *of bacteria* (softening experiential meaning)

The effect of FOCUS on *experiential* meanings is reasonably clear cut – sharpening often flags a positive assessment (*real* jazz) while downscaling tends to flag negative attitude (jazz *of sorts*) (Martin & White, 2005). However its effect on meanings which are already attitudinal (e.g. *kind of crazy*) and hence on the writer-reader relationship is quite complex and dependent on the co-text.

.
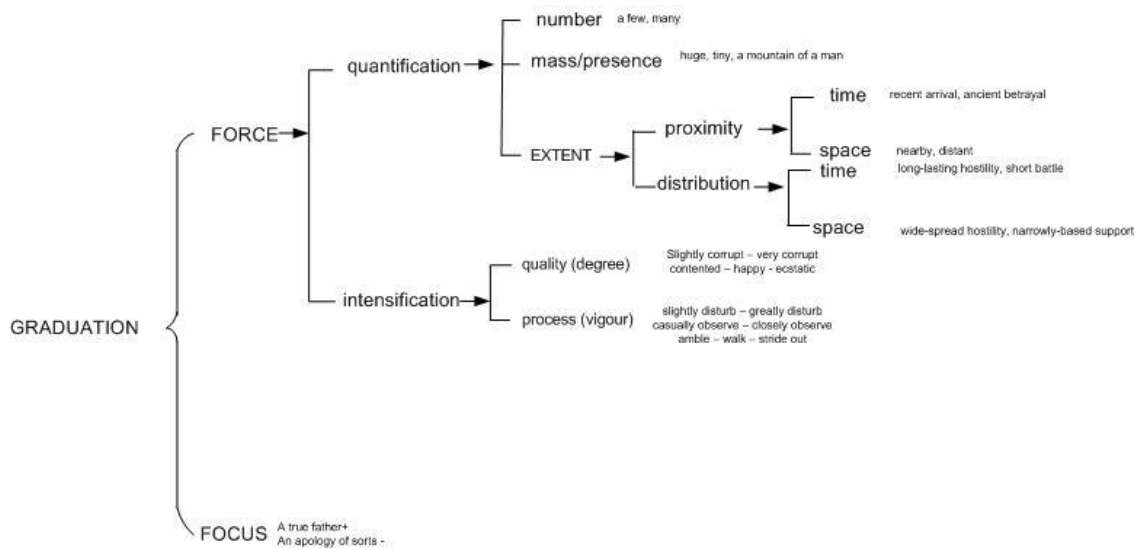
Figure 3.8 System network for graduation: force and focus (redrawn from Martin and White 2005: 154, up-scale and down-scale omitted)

A more recent model (Hood, 2010) slightly modifies that of Martin and White (2005), as shown in Figure 3.9.
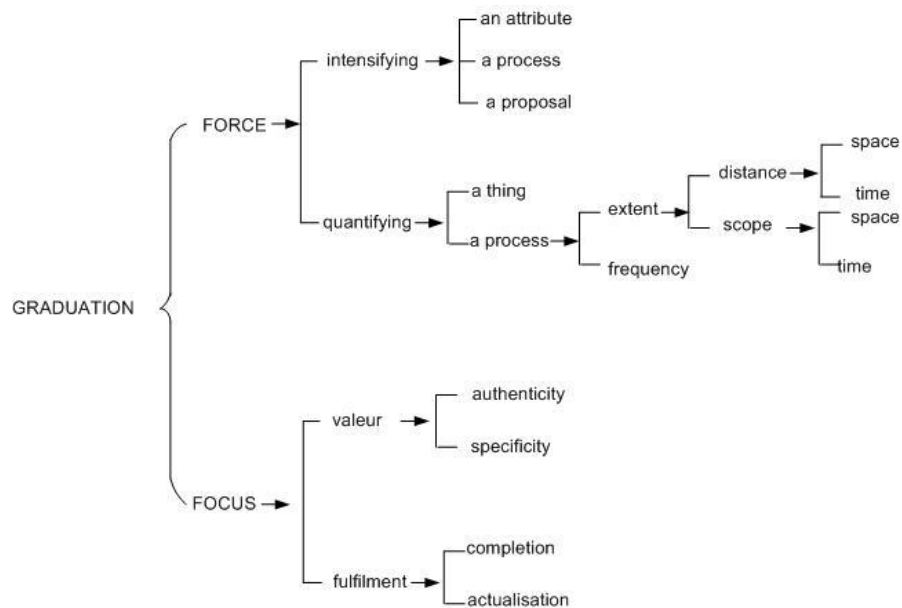
Figure 3.9 ɢʀᴀᴅᴜᴀᴛɪᴏɴ system (Hood 2010), redrawn from the original

Although this network diagram does not show realisations, Appendix 8 shows for interest realisations extracted from Hood's surrounding explanatory text. Differences between the networks include the addition of the option for intensifying a *proposal* (for example ***should/must*** *be taken into account, it is **essential** to ...*) and a new first level of delicacy for

quantifying being a choice between quantifying a thing or a process. Further levels of delicacy for process are similar to, but not identical with, those in the earlier network.

FOCUS

Notable is the expansion of FOCUS to include *valeur* (authenticity or specificity) and *fulfilment* (completion or actualisation). Valeur can be glossed as, for a phenomenon, what could be but isn't in terms of authenticity (how real it is) and specificity. Fulfilment refers to processes and propositions as categorical meaning: the extent to which a process is completed and a proposition is actualised.

FORCE

Assigning instances of GRADUATION in the discussion texts to categories in the FORCE network proved challenging. This resulted in part from the abstract and metaphorical use of FORCE and its embedding in circumstantial meaning. The assignment to categories below must therefore be regarded as a work in progress, pending further clarification. A small modification was made to the Hood (2010) network, particularly to allow increased discrimination for quantifying a thing (now entity) in line with the earlier network (Martin & White, 2005) (Hood, pers. comm. March 2012). The network I will use is shown in Figure 3.10.
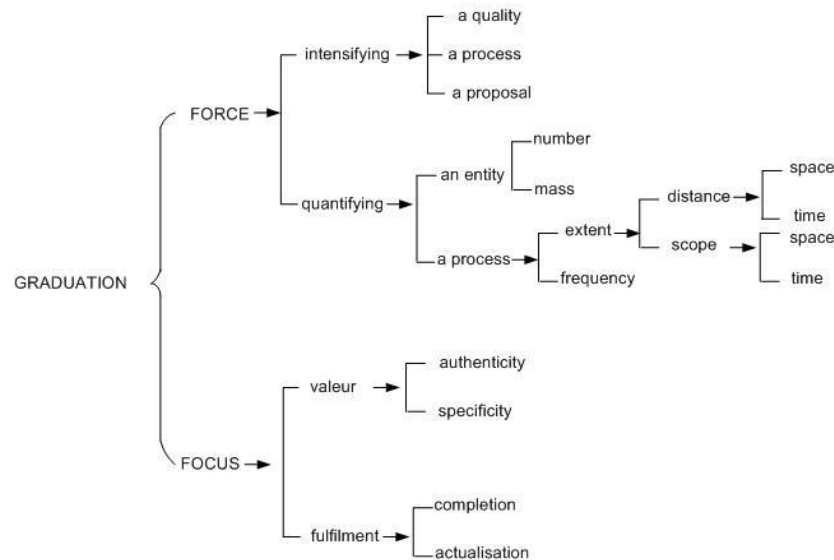
Figure 3.10 The GRADUATION network (Hood, 2010), adapted.

Examples: FORCE

Intensifying a quality

... ***very*** *valid point ... / ...* ***significantly more*** *likely ...*

Intensifying a process

*... decreased **dramatically** ... (metaphoric use)*

Intensifying a proposal

*Assessments of exposure levels, toxicants etc **must be** conducted by independent scientists*

Quantifying an entity

- *Number*

  *...**Limited** circumstances / ... **countless** hours ... / ... **multiple** sexual partners ...*

- *Mass*

  *...a **huge** controversy / ..a **small** proportion ..*

Quantifying a process

- *Frequency*

  *.. very, very, **rarely** tested ... (combined with intensifying an attribute)*

  *... **most commonly** used cessation aid ...*

- *Extent: distance: space*

  *.. prevalence rates remain **high** .. (metaphoric)*

- *Extent: distance: time*

  *...cases acquired **some years ago** ...*

  *... they can draw blood **at the same time** for serology*

  *.. **currently** offers workshops ...*

- *Extent: scope: space*

  *the population it hits the hardest **nationally and locally...***

  *... product which is **widely** used in Sweden ..*

- *Extent: scope: time*

  *... **over the years** the endless persistence ... of numerous agencies ... have made considerable and profound contributions*

Examples: FOCUS

Valeur: authenticity

- What **sort of** bias ... / ...some **sort of** buzz **... / Complete** chubba bubba

Valeur: specificity

- **General** population (negative) / **Unique** (strains of bacteria)
- **Exact** number / **Approximately** 40%/ **Something like** 3%

Fulfilment: completion

Exemplified by incomplete processes e.g.:

- **rising** problem / **trying to** discover
- **declining** smoking rates

Fulfilment: actualisation

- **potential** complications / ...is **actually** an increase

There are numerous instances in the data where it appears that entities are graded along similar lines to quantifying processes, for example **nearby** clinic or **local** area (similar to Extent: distance: space) and **international** evidence, **national** surveillance system or **global** picture (similar to Extent: scope: space). These are sometimes used metaphorically to grade an abstraction (e.g. **broad** term, **increased** incidence). Such apparent temporal quantifications of entities are often nominalisation of circumstances of time, for example **early** stage of an outbreak, **recent** trends, **fresh in people's minds** (invoked). Yet others are better categorised as FOCUS: completion: fulfilment (e.g. **declining** markets, **growing** body of evidence, **ongoing** process, **continual** battle). Some appear to refer to frequency (**regular** survey). I refer to these in my discussion whilst accepting that their place in the GRADUATION system network is not as yet completely clear.

3.9.3 APPRAISAL 3: ENGAGEMENT

The system of ENGAGEMENT accounts for the extent to which and the way in which other voices are acknowledged in a text. It 'theorises options for the management of other voices introduced into the discourse and the potential such options afford for aligning or dis-aligning the reader with various positions' (Hood, 2010, p. 173). It is situated in a tradition which sees 'all utterances as in some way stanced or attitudinal' (p. 173). ENGAGEMENT sees all utterances as dialogic with respect to related (aligned or opposed) texts which have gone before, exist concurrently or are yet to come, with respect to a shared community of values and with respect to an imagined reader construed by the text (Martin & White, 2005, p. 92 -3). Resources for managing other voices include, at one extreme, not acknowledging them textually at all, leading to a 'monoglossic' text. Texts which acknowledge other voices are

termed 'heteroglossic'; heteroglossia may be realised in ways which either expand or contract space for other voices and values. These distinctions are realised by a range of lexico-grammatical resources, as I show below. Relatedly, the terms 'extra-vocalisation' and 'intra-vocalisation' refer to 'who is being presented as the source of the proposition and whether or not the speaker/writer has sought to shift responsibility for the proposition to some external source' (p. 135). In other words, if the writer/speaker is presenting her/himself as the source of the proposition and does not shift responsibility onto an external source, this is known as intra-vocalisation; extra-vocalisation covers the opposite case.

ENGAGEMENT is implicated in aligning the (presumed and compliant) reader with the writer's value position or to the possibility of divergence from it and hence in establishing solidarity with the reader. Where the writer is maximally invested in a value position (including one that is externally derived), the interpersonal cost for a reader to disagree is higher than when the writer is less committed to such a position and makes space for alternative voices. In the sections which follow I will describe components of the system of ENGAGEMENT with reference to the system diagram (Figure 3.11). In all cases, I will refer to 'writer' and 'reader' of the texts under discussion, given that my texts are written, although it is acknowledged that ENGAGEMENT may equally occur in spoken texts; following Hood (2010) I will distinguish the 'writer' of the text under discussion from the 'author' of an externally referenced text.
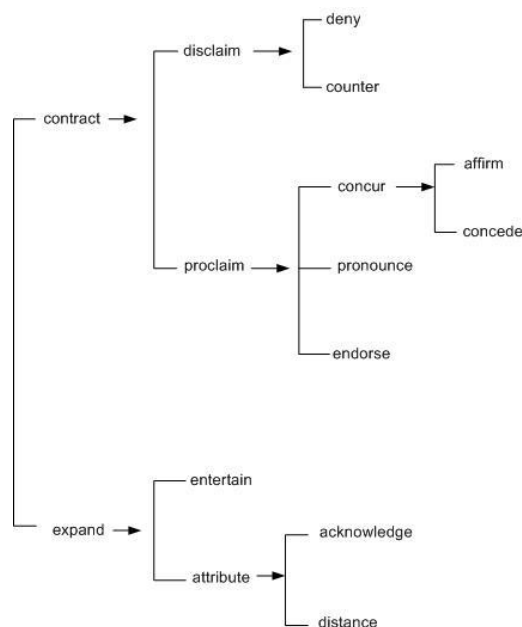
Figure 3.11 Heteroglossia in the ENGAGEMENT system [redrawn from Martin and White 2005: 134, realisations omitted]

Analysing my data for ᴇɴɢᴀɢᴇᴍᴇɴᴛ helps clarify aspects of the discussion such as the extent to which participants support a sense of community by expanding space for other voices in questions, answers and evaluations and the extent to which students commit to value positions, particularly with respect to texts brought in from outside the discussion. It also provides a lens for examining the question of what constitutes knowledge construction.

Monoglossic texts

The entry point for the ᴇɴɢᴀɢᴇᴍᴇɴᴛ system hinges on the monogloss/ heterogloss distinction mentioned above (not shown in Figure 3.8). Monoglossic texts are characterised by bare assertions, categorical statements that something 'is'. Such assertions are not to be viewed as neutral, objective statements of fact but as texts which do not admit of any dialogistic alternatives to be recognised or engaged with and no alternative voices to be acknowledged (Martin & White, 2005, p. 99). While it might appear that such assertions are an exercise in power which could alienate readers, the precise effect of monoglossic texts depends on the co-text and context. For example, the proposition can be presented as something taken for granted in the current communicative context and something with which the notional addressee is assumed to agree (complete alignment), obviating the need to discuss it.

In the case study discussions, monoglossic texts did occur, despite the overtly dialogic (or multilogic) context. Most are quite unexceptional, for example terminological explanations:

> A nag marketing campaign **is** one where children nag their parents to purchase the item.

or paraphrases of published research findings or restatements of common procedures and well-known facts in public health or clinical contexts:

> In most cases MVEV causes subclinical infection (without symptoms).

Heteroglossic texts

As noted, heteroglossic texts invoke or allow dialogistic alternatives. The critical distinction is whether the utterance or text 'makes allowances for dialogically alternative positions and voices' (shown as 'expand' in the network diagram) or 'acts to challenge, fend off or restrict the scope of' such positions (Martin & White, 2005, p. 102). For example:

> The study **showed** that the average age .... (contract)

> I **wonder** if this **might** be a way ... (expand)

In the following sections, I briefly describe elements of the ᴇɴɢᴀɢᴇᴍᴇɴᴛ system; I provide further discussion and examples in Chapter 7.

Expand

Where ENGAGEMENT expands space for other voices, this may be achieved in one of two ways: *entertain* (based on the writer's subjectivity) and *attribute* (referencing external sources).

Expand: Entertain.

Entertain is realised in ways which indicate that the stated position is just one of a range of possibilities; the stance is contingent on the writer's subjectivity and, while the writer's voice is invested in the proposition, the wordings make space for other possible views. ENTERTAIN is achieved mainly by *modalisation* of a proposition (between 'is' and 'is not').

> *... another smaller factor **may** be that elderly people ...*

Entertain can also be realised via circumstances (e.g. *in my view...)* and by certain ***mental/ attribute projections*** (e.g. *I suspect that, I think, I believe, I'm convinced that ...):*

> *So I **think** that this shows that it isn't necessarily bad parenting that is leading to children being overweight (Case 2 Discussion 1)*

These can be nominalised (Hood, 2010, p. 182)

> *But my **thoughts** are ...*

It can also be realised by '***appearance based postulations'*** (Martin & White, 2005, p. 105) or evidentials e.g. *it appears, apparently, the research suggests ...* and by using ***rhetorical or expository questions***:

> *Are we facing a new strain of bugs that has been imported through other routes?*

ENTERTAIN allows writers to establish solidarity with those sharing alternative views by means of this 'authorial anticipation that the proposition may be problematic' (Martin & White, 2005, p. 109).

Expand: Attribute

Attribute covers situations in which a proposition is attributed to external source (i.e. other than the writer) by means of projection. This includes direct and indirect reporting of speech, text and thought, involving verbal and mental processes (e.g. *said, believes*) and nominalisations of these (e.g. *assertion, belief*). It also includes situations where the external source is not specified but is generalised (e.g. *It has been reported that ...*). Attribution is used to support rather than advance arguments.

As shown in the network diagram, there is an important distinction between ***acknowledge*** and ***distance,*** hinging on the author's (subjective) stance with respect to the attributed proposition. In ***acknowledge***, there is no indication where the author stands and the writer self-presents as not at all implicated in the views expressed, thereby enhancing solidarity. On the other hand, ***distance*** implies that the author explicitly distances him/herself from the proposition of another. Both types allow much space for alternative views.

Contraction

A writer employing resources of ***Contract*** is still writing a heteroglossic text but seeks to exclude or constrain certain voices and value positions. Its two categories – 'disclaim' and 'proclaim' – differ in polarity.

Contract: disclaim

Disclaim covers both *deny* and *counter*. **Deny** involves negation. The writer disaligns himself from the view of third party or from some 'incorrect' view the presumed reader might have and aligns this reader to his own, opposing position.

Counter involves overturning a position which has been set up or overturning the (assumed) expectation on the part of the putative reader, largely through the use of conjunctions and connectives (e.g. *however, although*), comment adjuncts (e.g. *surprisingly*) and adjuncts such as *even* or *still.*

> *...that a harmless,* ***yet*** *addictive cigarette could be manufactured .... (Case 3, discussion 1)*

Contract: Proclaim

As opposed to disclaim, ***proclaim*** is positive but also serves to limit the scope of dialogistic alternatives; network choices are ***concur***, ***pronounce*** and ***endorse***.

Concur

When concurring, the writer/speaker shares agreement or knowledge with the putative addressee to bring about an alignment of views. This may be simply affirmative (e.g. 'of course' ' naturally') or may concede (e.g. 'admittedly').

Endorse

A proposition attributed to an external source is ***endorsed*** by the writer as being correct, valid and so on; the writer takes over responsibility or shares it with the external source. The strategy works to align the reader with the external value position, excluding alternative views.

*The study **showed** that the average age ...*

***As** many of you have already **pointed out** obesity rates ...*

Pronounce

Pronounce is realised by authorial emphases, explicit interventions and interpolations (e.g. *the facts of the matter are, the truth of the matter is*) and intensifiers such as *really, indeed* which assume contrary views but deliberately oppose them. The writer is maximally invested in the value position.

3.10 The NEGOTIATION system

I move now to the second major system constituting interpersonal meaning, that of NEGOTIATION. Describing online discourse involves documenting not only APPRAISAL as described above but also text structure. This involves teasing out the patterning within and between discussion posts, threads and entire discussions. The system of NEGOTIATION (Martin &Rose, 2007) enables this.

The NEGOTIATION system was first proposed by Martin (1992, pp. 31-91) as a 'general framework for analyzing conversational structure'. It is 'situated on the discourse semantic stratum, in the interpersonal metafunction', hence is implicated in 'construing social relations of power and solidarity (tenor) in social context' (Martin, Zappavigna & Dwyer, 2009). NEGOTIATION/ exchange structure analysis has been applied to discourse analysis in a range of contexts, from service encounters (eg Ventola, 1987) and casual conversation (Eggins and Slade 1997) to counselling and youth justice conferencing (Martin et al, 2009). Of interest to the present study (and one of the reasons for choosing to employ it) is its extensive use in research into classroom interaction. Thus, in the present study, analysis in terms of NEGOTIATION will not only allow for a structural description using a tool suited to educational contexts but will add to the APPRAISAL analysis undertaken to further unpack the interpersonal dynamics of the interaction.

NEGOTIATION distinguishes three basic parameters. First, what is being negotiated (where this is identified as either information or goods and services), and then in relation to that choice whether the speaker's role is that of giving or demanding, and finally whether the speaker initiates the exchange or responds to another speaker. This gives rise to the eight basic speech functions of negotiating, for example statement (giving information) and offer (giving goods and services) (Martin & Rose, 2007, p. 223), which are augmented with speech functions for

expressing self (exclamation) and 'attending' (for example greeting and responding to greetings), giving a total of thirteen (p. 226). The NEGOTIATION system network is available in Martin and Rose 2007 (p. 240).

Exchanges consist of *moves*, defined as 'a ranking clause, including any clauses embedded in it, and in addition any clauses dependent on it' (Martin & Rose, 2007, p. 234). A *response* is a move which '(1) takes as given the experiential content of its initiating pair part and (2) accepts the general terms of its argument established by its subject-finite structure' (p. 232).

An exchange needs at least two participants, but can exist of more, for instance the dinner party conversations analysed by Eggins and Slade (1997). Moves in conversation tend to come in complementary adjacency pairs (Martin & Rose 2007, p. 222), for example question and answer, although longer sequences do occur, especially in conversations with more participants. This presents some challenges when analysing online discussions. As I will show in Chapter 4, these are 'multilogues' in which the concept of adjacency pairs does not always apply. Finally, a move may be compliant with the preceding move or may interrupt the flow of conversation in some way (pp. 240-241).

The sections below show how the system may be applied, using examples from a (primary) classroom (joint text construction sessions from Hunt, 1991; page numbers indicated) or, occasionally, hypothetical data. In Chapter 4 I discuss the application of the system to online discussions and provide examples from my data. As noted above, I am using NEGOTIATION analysis for two reasons. I hope to illuminate the structure of the online exchanges in my data, particularly to determine whether they are in fact conventional pedagogical exchanges, and whether they are complete and well-formed. I also wish to shed light on the relationships of power between teacher and taught and the possibly democratised nature of online discussions.

3.10.1 Negotiating information

Starting with the negotiation of *information*: an exchange consists of an obligatory knowledge (K1) move in which the person who possesses the (objective or subjective) information (the primary knower) provides it.

> K1 [student] Some types of penguins can grow up to one metre. (71)

A secondary knower (K2) move occurs where an interactant asks for information s/he genuinely does not possess; the response is a K1 move:

K2 [teacher 1] Do you need this information on here for today?

K1 [teacher 2] No (58)

This is notated as K2^K1, where ^ indicates the sequence in time. As noted, the K1 move is obligatory; all others are optional and these are shown in parentheses, for example: (K2)^K1. Optional moves include delaying and follow-up moves (which continue the exchange) as well as dynamic moves which interrupt it.

A *delayed* or anticipatory K move occurs when the speaker knows the information but is withholding it pending the interlocutor supplying it, either because it needs to be foregrounded for some reason (Martin & Rose, 2007, p. 238) or for situations such as quiz shows (Berry, 1981) and pedagogical exchanges. It is shown as dK1.

A *follow-up* (f) move generally occurs after another speaker's move:

K2 [student] Does that sound alright to start with?

K1 [student] Yes

K2f [student] All right (94)

It may also follow a move by the same speaker (Martin, Zappavigna and Dwyer 2009).

Dynamic moves interrupt the adjacency pairs within an exchange and serve to facilitate or frustrate the movement to completion (Hunt, 1991, p. 75) These moves stand outside the basic exchange structure and are of two types: tracking moves and challenging moves (Martin & Rose, 2007, pp. 240-1). *Tracking* moves ensure that 'the *experiential* meaning under discussion is shared' (Martin, 1992, p. 67), in other words they 'clarify in some way the *ideational* content of what is being negotiated' (Martin & Rose, 2007, p. 241) and 'function to maintain or establish agreement between the speakers about the experiential aspect of meanings ... being negotiated' (Hunt, p. 43). In contrast, **challenging** moves are *interpersonally* oriented: they are non-compliant, uncooperative moves which resist in some way the interpersonal thrust of an exchange (Martin & Rose, 2007, p. 241) and which may suspend or abort it (Martin, 1992, p. 71). Challenging moves are coded as ch (and the response move rch) (p. 72). Aborting moves 'extricate interlocutors from an exchange' including by ignoring the previous move, by refusing to grade in matters of opinion (p. 71), by expressing disinclination or disability (action moves) or (for knowledge moves) by claiming ignorance, querying relevance or negotiating degrees of attitude, probability, usuality, obligation and inclination (p. 73). The following examples show challenging moves:

> *K1 [student] …half of Australia lives in Brisbane*
>
> *….*
>
> *Ch [teacher] No, no. (133)*
>
> *K1 [student] Have webbed feet like ducks*
>
> *Ch [student] No they don't*
>
> *rch [student] Yes they do (122)*

One speaker may make a series of moves of the same type, for example a series of K1 moves. These are aggregated into *move complexes*; likewise, exchanges may be aggregated into exchange complexes (Martin & Rose, 2007, pp. 244-251).

3.10.2 Negotiating goods and services

In the case of *goods and services*, the person carrying out the action (often non-verbally) makes an obligatory primary actor (A1) move, while the one requesting this action makes the A2 move which precedes it:

> *A2 Put your hand up (92)*
>
> *A1 [students put hands up; non-verbal]*

The A2 move could in theory be preceded by an anticipatory (or delayed: d) move and completed by one or more follow-up (f) moves, as in this hypothetical example:

> *dA1 Would you like me to open the window?*
> *A2 Yes, please do*
> *A1 There you go [opens window]*
> *A2f Thanks*
> *A1f: No worries!*

Action-focused exchanges may also contain tracking and challenging moves and both knowledge and action exchanges, outside and within classrooms, may include exclamations, greetings and calls and responses to them.

The distinction between knowledge and action moves is quite clear-cut in the examples above. However, a core tenet of exchange structure analysis to date has been that *pedagogical* exchanges share a feature with service encounters (Ventola, 1987) and certain other interaction types (eg Martin et al, 2009), namely that both knowledge and action are negotiated at the same time. Ventola (1987, p. 115) demonstrates this for an everyday exchange such as the following:

> A: *Excuse me*
>
>   *what's the time please?*
>
> B: *two thirty*
>
> A: *Okay.*
>
>   *Thanks*

Although it is ostensibly information that is being exchanged (namely the time of day), A's responses ('Okay' 'Thanks') as well as the (non-obligatory) 'please' in the question are elements which typically belong not to information but to action moves, enacting the provision of a service.

Ventola classes these exchanges as requesting and providing a *linguistic service* and suggests double coding them as both Knowledge and Action moves, with the Action move further coded as LS (linguistic service), for example (from Martin, 1992, p. 51):

> A   K2/ A2:LS   *Can you tell me your name?*
>
> B   K1/A!:LS   *Yes, allright, John Smith*

This applies equally in educational context, as in the hypothetical example below:

> dK1/A2:LS   *[Teacher] Can you tell me how you got this result?*
>
> K2/A1:LS   *[Student] Well, I calculated …*
>
> K1/Af:LSf   *[Teacher] That's right, well done.*

The first of these exchanges represents the oft-documented IRE (Initiation – response-evaluation) or IRF (Initiation – response-feedback) patterning of much classroom discourse (eg Sinclair and Coulthard, 1975; Nassaji & Wells, 2000). The follow-up move may acknowledge the service provided, or such acknowledgement may be implicit, although in the case of IRE and other pedagogical exchanges, a K move realising the correct information or some other form of validation is expected.

Criteria for a linguistic service include reference to the broader context of situation (e.g. service and educational encounters, youth justice conferencing (Martin et al, 2009) and the presence (actual or implied) of words such as *OK, please, thanks.* Another criterion is the use of a verbal process in the A2 move (e.g. Martin, 1992, p. 51). If not all, at least some of these

elements must appear and others must have the 'potential' for appearing in an appropriate slot (Ventola, 1987, p. 116).

In educational contexts, responses are often elicited by verbs of saying and thinking (eg *Who can tell me… What do you think about … Let's brainstorm...*). If questions are formulated as Wh- questions (a more congruent realisation), in the absence of any other markers eg *please, thank you,* would this still be a request for provision of a linguistic service? Would the nature of the question as a dK1 move imply a request for linguistic service in the absence of other markers, in view of the teacher's power to require answers and actions? As I argue in Chapter 4, identifying linguistic service moves in the online environment is even more complex.

3.10.3 Exchange structure analysis and classroom discourse

As noted, Exchange Structure Analysis is commonly used in classroom discourse analysis. Christie (e.g. 2002) used speech function theory (on which exchange structure analysis is based) and detailed lexicogrammatical analysis of selected early childhood, primary and secondary classroom discourse to explore the operation of the 'regulative register' (set of language choices) in these pedagogical settings. She demonstrates that teachers use a wide range of strategies including control of time, modality, person, vocation, grammatical metaphor, theme, polarity and positive 'moral regulation' to position ideal pedagogic subjects and to promote acceptable spatial and temporal behavioural patterns and other types of valued behaviour such as patterns and methods of handling information, reasoning, describing and so on.

3.11 INVOLVEMENT

APPRAISAL and NEGOTIATION co-articulate interpersonal meaning with the third major system within interpersonal meaning, namely the system of INVOLVEMENT, which I will briefly describe here. The (non-gradable) resources of INVOLVEMENT build solidarity and group affiliation amongst participants in both spoken and written discourse in a wide variety of contexts, for example in street gangs and prisons as well as professional workplaces. They include naming (terms of address); technicality and abstraction (including technical and specialised lexis, acronyms, and grammatical metaphor) and anti-language, swearing and markers of social dialect (Martin & White, 2005, p. 34). All of these resources build a feeling of group belonging, effectively delineating those in the group from those outside it, and as such are integral to the enterprise of building communities of learners and of practice, whether face to face or online. I

discuss and exemplify INVOLVEMENT in detail in Chapter 5, in connection with the formation of a community of learners.

3.12 Application of SFL and genre to the current study

To theorise the application of SFL to the analysis undertaken in the present study, I start from the premise, noted above, that we 'use language to make sense of our experience and to carry out our interactions with other people' (Halliday, 2004, p. 24), corresponding to the ideational and interpersonal metafunctions respectively. Related to this is the premise that in any use of language these two metafunctions, together with the omnipresent textual or organising metafunction, will be simultaneously present. For example, in introductions to research papers, as Hood (2010) points out, a subtly nuanced subjectivity underlies apparently objective writing, and phatic communication, no matter how social, needs to be *about* something i.e. it realises ideational meaning.

A large part of my analysis concerns teasing out the balance of interpersonal and ideational meaning in the online discussion contexts studied. I assess the functions each performs and the extent to which they support - or perhaps work against - each other against a background of complex textual and mode requirements. For example, in Chapter 5 I examine how online communities of learners are formed and maintained through interpersonal meaning-making – particularly AFFECT, APPRECIATION and positive JUDGEMENT. Similarly, in Chapter 6 I examine issues of community and individual identity, and show that coupling of interpersonal and ideational meaning can lead to affiliation and bonding (or to conflict).

3.13 Data collection and description

Discourse analysis in this study is supplemented by quantitative data concerning interaction patterns and quantitative and qualitative survey data. This is in response to suggestions by researchers (e.g. Hammond & Wiriyapinit, 2005) that online discussions need to be researched using not just one method, for example quantitative analysis of posting patterns, but two or more. Each method provides different data and enables the research question to be seen through a different lens, and may corroborate or refute findings reached by another method. While SFL-based discourse analysis is my primary tool, data obtained by other means may corroborate or contradict its findings or provide further detail. For example, qualitative responses to student surveys confirm that incidents which appeared on linguistic evidence to be disruptive were perceived as such by students. Quantitative survey responses allow me to

compare with linguistic data characteristics of student groups, for example satisfaction levels, professional experience and percentages educated wholly overseas. Finally, quantitative mapping of discussion structure allows me to, amongst other things, visualise chronologies of posting and patterns of response (not visible in the transcript), which in turn enable me to theorise the incremental construction and complex structure of the text and the possible effect of this on ideational and interpersonal meaning-making, as well as the different experiences students and researchers have of the discussion (dynamic vs synoptic). Even where the analysis is primarily linguistic, I occasionally use simple quantitative techniques to summarise occurrences of certain items, although I have not undertaken detailed corpus-based statistical analyses.

3.13.1 Data collection

Once ethics approval was obtained, participants were recruited by means of announcements on the unit's e-learning site (for students) and emails (for moderators). Participation was voluntary; both participant types completed consent forms agreeing to the analysis of their discussion postings; students' answers to an anonymous survey were also used with their agreement.

As noted in Chapter 1, students and moderators were invited to complete a survey about their expectations and experiences of online learning. Student survey responses were saved by the Learning Management system (LMS) and were anonymous; in some cases they could not be linked to specific groups and are flagged as comments on the unit in general. Moderator survey responses were returned in hard copy with consent forms. Response rates and extent of answers varied between discussions but nonetheless quantitative and qualitative survey data provide descriptive and corroborative data. Simple statistical analyses of quantitative data were undertaken and content analysis was used to draw out the main themes in the free text answers. Survey results for each case study are available in Appendices 1.4, 2.4 and 3.4 respectively while the survey instrument is available in Appendix 6. The survey responses when referenced in the text are coded as follows: C3R9 means Case 3, Response 9.

The permanent record of asynchronous online discussion texts retained in the Learning Management System (LMS) was used for the discourse analysis. The records were downloaded and copied into a Micrososft Word document. These were edited to remove duplicates and irrelevant artefacts of the LMS such as 'Topic closed; no further postings' and to standardize the font to 11 pt Calibri. However the layout and spacing within posts was not changed, nor

were capitalization, spelling and grammar corrected; any greetings, signatures, emoticons and other non-text elements were retained, as were citations. Attachments were noted but not reproduced. Each posting was given an identifying number reflecting the thread indexes, since these provide the best available guide to the discussion structure. In the chapters which follow, where excerpts from posts are identified, they are coded thus: C1M3G3P28 means Case 1, Module 3, Group 3, Post 28. For Cases 2 and 3, lacking groups, the codes will include only case and posting, e.g. C3P66.

All students who gave consent for analysis of their postings were de-identified and provided with a pseudonym reflecting their gender. Where consenting students are present in more than one case, they retain the same pseudonym. Students never referred to themselves or each other using family names, so these have not been provided, although they were present in the original message headers. All students who did not give permission for analysis of their postings are provided with a pseudonym reflecting their alphabetical order in the relevant class list eg Student A, Student B and so on. This means that these contributors can be identified (a) in the overall mapping of the thread or exchange structure, although their posting cannot be shown, and (b) when their contributions are referred to by those students whose contributions *are* available for analysis, for example 'I agree with Student B'. Where non-consenting students are present in more than one case, there has been no attempt to provide them with the same pseudonym. All moderators who gave permission for analysis of their postings were provided with pseudonyms consisting of a given and family name, reflecting the way they are named in the LMS. Where they referred to themselves, or others referred to them, using the polite form (eg Dr Austen), first name only (eg Sally) or an abbreviation (eg Sal), this was reflected in the de-identified form; the title reflected the moderator's real title. Where moderators did not give permission for analysis of their postings, their discussions were not used at all.

3.13.2 Selection and display of discussion threads for analysis

Five units of study were initially selected for study on the basis of the number of discussion activities and of students (from 20 to 70). Of these five units, two had insufficient levels of consent from students to allow for meaningful analysis, leaving the three units which became Cases 1 (Infectious disease), 2 (Obesity) and 3 (Tobacco control). The units chosen had between them discussions running to several hundred thousand words, and in order to render the volume of data manageable, specific discussions were selected for study from each case. Discussions for which the moderator had given consent and for which there were sufficiently

high student consent and participation rates went into the pool of eligible discussions. Where the moderator had given consent but the pool of students was not sufficient, moderator postings only were used (this occurred in Case 1 only).

From this pool of eligible discussions, discussions were selected for analysis on the following basis:

- across all cases, the initial meeting of tutor and group was chosen, to provide comparable data. These initial discussions covered introductions where needed, task setting and the establishment of ground rules as well as the first discussion topic; they ranged from seven to ten days in length. In addition, the 'Getting to know you' discussion thread representing all Case 1 students (but not moderators) was analysed since it represented a first meeting between students.
- one group only (Case 1, Group 3) was tracked longitudinally from initial meeting (Module 1) through a mid-point (Module 3) to the conclusion of the unit (Module 6), covering about 12 weeks. This enabled any time-based changes in interaction to be tracked.

Further, specific parts or aspects of discussions are sampled in the chapters which follow, to allow for a specific analytical focus. The basis for selection varies from chapter to chapter, thus in each case the basis for the sampling is provided in context. The discussions analysed comprised approximately 100,000 words in total, although as noted the wording of some of the postings cannot be disclosed or analysed, leaving over 60,000 for analysis.

The sequence in which messages are displayed in the file downloaded from the Learning Management System (LMS) has been retained in the transcripts. This form of display is a compromise between chronological and thread sequencing and provides the best general overview of the discussion. However, this compromise obscures important elements of the interaction, hence both a chronological overview and a mapping of reply patterns within and between threads were undertaken. ***Thread chronology tables*** show postings per thread (including sub-threads) in strictly chronological order (date and time). These can be found in appendices 1.5.1, 2.5.1 and 3.5.1. ***Thread indexes*** were used to generate the thread maps but are not discussed further. Samples are provided in the Appendices. ***Thread maps*** are based on the thread indexes and show which posting replied to which prior postings, not only in the technical sense (via the 'Reply' button) but also in terms of meaning. Appendices 1.5.2, 2.5.2 and 3.5.2 contain these maps. These are discussed in connection with discussion structure in Chapter 4.

3.14 Data analysis and interpretation

My data analysis and interpretation primarily consist of an analysis of the online discourse, informed by SFL as both a theory of language in context and as an analytical tool, as noted above. In using SFL, my analysis is informed by a long tradition of research conducted at all three strata (discourse semantics, lexico-grammar and phonology and graphology) for a wide variety of texts in multiple languages. It follows that for much of my analysis I draw on existing system networks and existing interpretations of the theory and of texts. However, as noted in Section 3.5 above, linguistic analysis is ultimately a work of interpretation. It is an individual 'reading' of the interaction, albeit a strategic and theoretically informed one. In this section I complete this methodological account by further specifying the nature of the analysis I am undertaking, by describing my reading position and by considering the basis of the knowledge claims I will make in succeeding chapters.

My analysis will focus on the discourse semantic stratum (how meaning is made by interactants) and will consider lexico-grammatical realisations of meaning as needed. It pays attention to matters of genre, which impact on participant experiences and text structure, and therefore considers relevant register variables. I also define my analysis by what it is not: I have deliberately chosen to eschew a corpus-based approach. Such approaches generalise across a text or texts by focussing on the occurrence of specific lexical items. They can illuminate differences in the discussion as a whole, for example, between individual discussants or between male and female or Australian-educated and overseas-educated discussants or between disciplinary fields, and are useful in certain contexts. Disadvantages of such approaches include the fact that there is no one-to-one correspondence between meaning and its lexico-grammatical realisation and the fact that what is unique about an individual text, including logogenesis, is lost in such generalisations. In this study I focus on instances and patterning of instances in individual texts or text segments since 'what is unique in one particular text may be just what matters' (Martin & Rose, 2007, p. 312). For the reasons given above, the findings are for the most part presented descriptively rather than numerically and statistically, although descriptions are based on quantitative analyses undertaken and some quantitative data are provided in diagrams, summaries and tables. In other words the study design is qualitative and interpretive, focussing on depth rather than breadth (Hood, 2010, p. 29).

My 'reading position' is that of an academic with a background in teaching at all levels of the educational system, educational design qualifications, experience in online settings and formal

postgraduate studies in linguistics. I consider myself a native speaker of English and was fully educated in Australia. Although I have worked in the disciplinary setting for some years, I do not have formal qualifications in a health-related area. The possibility therefore exists that I may have misinterpreted meanings of a scientific nature in the discussion, although much of the discussion is sufficiently general to be accessible to an educated lay reader.

Epistemological and especially ontological questions remain to be answered. What is the nature of the knowledge I lay claim to in this study, and how can I claim to know? I briefly respond to these under two headings: at the micro level, of my interpretation of discourse data and at the macro level, the sociology of education and of knowledge and its transmission. A more elaborate response is outside the remit of this study and ruled out by space constraints.

At the micro level, my reading position in this study is tactical, standing aside from the text as far as possible to interpret it but, as noted, informed by theoretical principles. In fact, I am attempting to discern the 'naturalised' or 'ideal' reader position (Hood, 2010, p. 74) projected by the text, informed by linguistic theory.

At the macro level, progress in the sociology of knowledge and education has been hampered for decades by an 'epistemological dilemma' which leads researchers to assume that there only two methodological choices: 'positivist absolutism' or 'constructivist relativism' (Maton & Moore, 2010, p. 1). I take a Social Realist approach to this 'impasse', which 'recognizes *contra* positivism, the inescapably social character of knowledge but, *contra* constructivism, does not take this to inevitably entail relativism' (p. 2). In other words, knowledge of an independent reality is possible but is not necessarily universal: knowledges are socially and collectively produced, '*emergent from but irreducible to* the practices and contexts of its production and recontextualisation' (Maton & Moore, 2010, p. 5, emphasis in original). My analysis assumes that it is possible to 'know' to some extent and make claims concerning the meaning which is being discursively constructed online. Building on the body of SFL knowledge which has been socially and collectively constructed over the decades, I interpret my data as objectively as possible within the limits of my individual history, skills and sensibility to reach as closely as possible the reality embedded in the discussions studied. A chink will always remain for doubt and alternate views. It is hoped that future interpretations will build on mine to cumulatively advance understanding of electronically mediated teaching and learning.

3.15 Of knowledge and knowers

The linguistic realisation of knowledge construction in asynchronous online discussions will be viewed against a background of not only the philosophy but also the sociology of knowledge and its transmission. Both need to be addressed in order to balance the former's tendency to 'construct knowledge as asocial' and the latter's tendency to 'neglect questions of epistemology' (Maton, 2000, p. 164). In fact, the study of knowledge itself 'remains largely missing' from educational research (Howard & Maton 2011: 193). Thus my analysis will be informed by Basil Bernstein's theorisation of *knowledge* and the role of *knowers* as theorised by Legitimation Code Theory (e.g. Maton, 2010).

Bernstein (e.g. 2000) articulated the structure of knowledge in disciplinary areas. He distinguished between *vertical* and *horizontal discourses* (scientific/ technical/ academic and everyday discourses, respectively) and within vertical discourse, between *hierarchical* and *horizontal knowledge structures*. The former are characterised by the development of new theories (as in science) into which earlier theories are successively integrated. The latter are represented by the tendency, for example in sociology, to develop new and mutually incomprehensible descriptive 'languages', different from and not integrated with those that came before, replacing them and being replaced in turn. Knowledge fields are insulated from each other by *classification,* the strength of which varies. These concepts are a reminder that studies of pedagogic practices need to be situated within their specific disciplinary context rather than offering generalised prescriptions and universalist solutions (Freebody, Maton & Martin, 2008, p. 190; p. 107). For this reason, the present study proposes a detailed and nuanced analysis firmly grounded in the specific disciplinary setting of public health.

Bernstein's concept of pedagogical discourse is particularly relevant to this study's focus on moderation, interaction and learning. He saw pedagogical communication not as a neutral relay or carrier of power relations but as semiotically implicated in the differential distribution 'of knowledge which carries unequal value, power and potential' (2000, p. xxi), thereby replicating social advantage and disadvantage. Thus he defined pedagogical discourse as socially constructed processes which shape consciousness differentially by means of power (classification) and control (framing) (pp. 3-6). In educational contexts, *classification* influences the strength of boundaries between disciplines, topics, everyday and technical knowledge or home and school contexts, amongst other things**.** *Framing* 'refers to the controls on communications in local, interactional pedagogic relations' (p. 12). Framing influences the *visibility* or otherwise of pedagogic practice (p. 13). Generally speaking, if framing is strong, the

transmitter controls selection, pacing and so on; this is described as a *visible* pedagogic practice. If framing is weak, the acquirer has more *apparent* control (p. 13; emphasis in original); this is described as an *invisible* pedagogic practice. According to Bernstein, the latter may be much harder for certain students to fathom, depending on their coding orientation, determined largely by social class (p. 14). I explore the pedagogical practice of online discussions to see if it is visible or invisible.

Legitimation Code Theory (LCT) is a 'central conceptual framework of social realism' (Howard & Maton, 2011, p. 195). As such it represents a 'theoretically-informed, empirically-based approach' (p. 197) to studying educational practice at all levels. It seeks to overcome the false dichotomy between 'studying either knowing or knowers' often leading to a 'knowledge-blindness' (p. 192) which also affects educational technology research (p. 193). Within knowledge, Maton (2010, p. 43) distinguishes

> *'two co-existing but analytically distinct sets of relations, highlighting that knowledge claims and practices are simultaneously claims to knowledge of the world and by authors, or oriented towards or about something and by somebody.'*

These are termed epistemic relations (ER) (knowledge of the world) and social relations (SR) between 'practices and their subject, author or actor' (Howard & Maton, 2011, p. 196). As this is not a sociological study but primarily a linguistic one, I will use the concepts introduced above lightly in the following chapters.

Chapter 4 Negotiating structure

Research into asynchronous online discussions in pedagogical contexts has not, as yet, given rise to a clear common understanding of what it means to participate in and learn through them. Such an understanding might be built on, for example, more clearly articulated expectations of the shape and overall structure of these discussions and of the role relations between participants and of the kinds of meaning available and anticipated in interaction. Such understandings, and would assist with activity design, moderation guidelines and student orientation. A first step in a *linguistically* based exploration of the experience of participating in such discussions (as proposed in Chapter 3) is to see them as a new and evolving genre being continuously constructed by participants in multiple contexts of use. Such an exploration would include examining the specific settings of the register variables of field, tenor and mode present in the discussions. It also involves examining, at a more abstract level, the 'recurrent configurations of meaning' (Martin & Rose, 2008, p. 6) enacting, in this instance, the social processes of online interaction in the specific institutional and disciplinary context of this study, realised in stages or phases of discourse. Thus an account of the genre of these discussions will be gradually built up in this and the following chapters, starting with what might be loosely termed 'structural considerations'.

In this chapter I approach the data from the perspective of the structure of online discussions. By structure, I refer not only to *quantifiable* patterns of postings (henceforward 'interaction patterns') but also to patterns of meaning identified through *linguistic analysis*. In the latter case, I approach the notion of structure from the contextual stratum of register (Martin, 1992, Martin & Rose, 2008) and more specifically from the perspective of *mode* and also of *tenor*. Mode is defined as the 'part language is playing' in the interaction (Martin & Rose, 2008, p. 11). The contextual variable of mode interacts with language in relation to the textual metafunction, in the shaping of ideational and interpersonal meanings into particular kinds of messages. In a second perspective on the linguistic realisation of structure, I turn to the contextual stratum of genre, as noted above. Genres realise at a more abstract level the register variables of field, tenor and mode, realising in other words a *pattern* of field, tenor and mode patterns (see Chapter 3). Online discussions are glossed as the 'collaborative construction of knowledge through text-based interaction', in other words a configuration of tenor (collaborative), field (knowledge construction) and mode (text-based interaction). The register variables for asynchronous online discussions are explored further in Section 4.1, below.

The title of the chapter refers to *negotiating* structure since the structure of the interaction is not predetermined. It is shaped by the participants in complex ways: in interaction, responding to the potentials and constraints of the modes of the technology, in the construal of ideational meanings and in the expression of interpersonal meanings. Although some elements of the layout of posts are fixed, for example the header, writers have considerable leeway in composing and formatting their posts. Within the resultant multilogue, participants have significant latitude in terms of replying to – or ignoring – other posts. These issues, amongst others, will be explored below.

The chapter begins with the establishment of some foundations for the analyses and interpretations that follow. First I describe register variables for online discussions (4.1) and review existing research findings concerning the structure of online discussions (4.2). The interplay of features of language that are characteristic of spoken and written discourse is revisited (4.3), followed by a quantitative analysis of interaction patterns (4.4). This analysis is at three levels: that of the *discussion* as a whole (defined as a new module or topic at the top level of the discussion board), of the *thread* (defined as a new topic started by any participant within the discussion) and of the *post* (a contribution to a thread by an individual). It takes into account the need to view discussion structure synoptically (as a completed entity), chronologically (as it unfolds over time) and dynamically (in patterns of interaction).

Moving now to a higher level of abstraction, I approach the analysis of genre by exploring configurations of meaning in the discourse and reading the ways the texts signal shifts in meaning as stages and phases (Sections 4.5 to 4.8). In particular I am exploring this as patterns of negotiation, drawing on the system of NEGOTIATION in the discourse semantics of English. Exchange structure analysis, within the NEGOTIATION system, is commonly applied to casual conversation and classroom interaction, and will be here extended to analyse online pedagogic discourse. This analysis also enables a preliminary consideration of tenor in these discussions. Potential models for student K2 move complexes are proposed (4.9) and finally, in Section 4.10 I seek to discover whether the concept of a curriculum macro-genre (Christie, 1997) also applies to online discussions. Generating genre descriptions of online discussions enables comparisons with other genres used in education, both virtual and face-to-face, and facilitates comparisons with online discussions in other disciplinary and pedagogical contexts. It offers the potential for more effective intervention in practice through modelling and explicit teaching, addressing what Martin & Rose (2008, p. 18) have termed an 'ideological' imperative.

4.1 Register variables for online discussions

A better understanding of the mode (textual meaning) of asynchronous online discussions in pedagogic contexts aims for an enhanced appreciation of the potential impact of this form of technological mediation on interpersonal (tenor) and ideational (field) meaning making. I elaborate briefly here on each of these register variables in the context of this research study, with more detailed discussions, particularly of tenor and field, in subsequent chapters.

4.1.1 Field

Field 'consists of sequences of activities' (and the discourse patterns which realise them) 'oriented to some global institutional purpose' (Martin & Rose, 2008, p. 13). In the present study, the participants (enrolled and external students and moderators) are engaged in activity sequences centred on studying and teaching public health content at postgraduate level and (for moderators) assessing student achievement. The activity unfolds in a non-proximal asynchronous technology-mediated environment. The disciplinary field, public health, is a technical and specialised field covering a range of content from clinical and statistical through epidemiological to sociological. Broadly stated, courses in public health provide both a theoretical and applied preparation for professional employment, locally or overseas, either out in the field, in health-oriented institutions or in research. Content comprises not only knowledge but specialised procedures. Lexis is mostly technical, occasionally everyday. A more detailed description of the field for individual cases may be found in the Appendices.

4.1.2 Tenor

From the perspective of tenor, we are concerned with 'the nature of social relations among interlocutors, with the dimensions of status and solidarity' (Martin & Rose, 2008, p. 12, see also Chapter 3). The relative status of lecturers/ moderators and students in post-graduate contexts is somewhat less clear than in traditional primary and secondary educational contexts. Lecturers, expert guest speakers and professors have higher status and authority (flowing from expertise and job classification) and occasionally prominence (from media exposure) than students, although some students have authority almost commensurate with that of their moderators. Perceptions amongst students (local and international) of the size of the ensuing asymmetry may vary. Collaborative/ constructivist educational paradigms consciously seek to ameliorate some of this asymmetry, as do personal teaching philosophies in some cases. Relative status is not static: when interactions are viewed logogenetically, as Poynton (1990, p. 40) reminds us, a multiple and shifting 'subjectivity' is created in and

through participation in specific discourses and positions are mutually negotiated rather than fixed a priori (p. 70).

4.1.3 Mode

Finally I turn to the concept of mode, the 'texture of information flow as we move from one modality of communication to another' (Martin & Rose, 2008, p. 14). The text in an online discussion *constitutes* social action rather than accompanying it. The discussion involves reconstruction of shared experience as well as knowledge construction and generalisation, the latter creating knowledge new to the participants. There is no aural or visual contact between participants, so these texts are classified as written. Written texts are characterised by delayed reading and in some cases a reply. In the case of online discussions, a reply is possible and expected, hence these texts are dialogic (in the sense of mode, not the Bakhtinian sense). However, multiple rather than single replies are made, staggered in time. The text therefore displays some characteristics of the turn-taking of speech. Composition is fairly self-conscious, provisional and dynamic for the individual, until a post is submitted. After this the text becomes an object of reflection and re-composition by others, at least in so far as parts of the post (or its ideational meaning) are incorporated into new posts. Interpersonal distance is medium range – these are written but dialogic texts, delays in responding are measured in days at most, sometimes hours. The text as a whole is gradually composed by numerous participants and cannot be considered complete until the last post is made.

Small adjustments in the enabling technology impact mode. Even differences such as those between asynchronous interaction as above (persistent texts, delayed responses) and synchronous interaction e.g. text chat (fleeting texts, immediate response) make a difference (Yates, 1996, p. 46). Named authorship (as opposed to anonymous or pseudonymous posts) has a profound impact on tenor, as does the ongoing display and visibility of posts, compared to the relative privacy of, say, assignments. In asynchronous discussions, 'ownership' is restricted to individual posts compared to, say, a wiki, in which it is shared between participants. All student posts are notionally equal, as opposed to, for example, an individual's blog on which others may comment.

This brief introduction to register variables for online discussions has presented them in isolation. The remainder of this thesis will examine their interrelationship, the way they simultaneously make the meaning which is experienced in these discussions, although each chapter will focus on one of them. In this chapter, as noted, I concentrate on mode and begin

to describe the ways in which participants' interpretation of mode requirements impacts on interpersonal and ideational meaning-making.

4.2 Models of discussion structure

A range of models of discussion structure have been proposed in the literature, arising from different theoretical orientations. Such models occur both in guidelines for moderation and in research findings. Note that I limit this discussion to asynchronous online discussions, since other forms of computer-mediated communication (for example email lists (eg Don, 2007) and Twitter (eg Zappavigna, 2011) exhibit different structures as a result of different technological affordances and other register variables.

One extremely influential model of discussion structure is the 'five-step model' proposed by Salmon (2004, pp. 25-37). The model is based on Salmon's action research with early adopting users of CMC at the Open University and with trainee moderators. It consists of five stages starting sequentially; these are *Access and motivation, Online socialisation, Information giving and receiving, Knowledge construction* and *Development.* Each stage has a different purpose and differing requirements for technical support and e-moderation. The amount of interactivity increases during the discussion then tapers off towards the final stage (see Appendix 5 for further details). It is not clear whether earlier phases persist as new ones start, but the visual representation seems to imply this. Salmon suggests that 'using the model to design a course with CMC' will lead to 'increased student satisfaction' and smoother moderation (2001, pp. 26-27). Evidence for the broad impact of this model is the fact that Salmon (2004) was cited over 2,400 times in the ensuing 7 years and is often used in guidelines for moderation. This model was likewise influential in academic development in the present research context. A model such as Salmon's seems to inform much of the research into online earning using coding schemes (discussed and problematised in Chapter 2), with concerns expressed that students spend little of their online time at levels 4 and 5 of the model. However, it is not clear whether this model is descriptive or normative, and seems to imply that all discussions will follow this model, regardless of differences in discipline and user groups and growing familiarity with ICT over time. Other models derive from the workplace rather than academic contexts, particularly those based on the so-called 'lifecycle' of groups. Examples are *forming, norming, storming, performing, adjourning*; alternatively *initial, conflict, intimacy, termination*; or *content, intention, contracting, settlement* (Johnson 2000:51) or *inception, problem solving, conflict resolution* and *execution* (Paloff & Pratt, 2001).

These models are of limited usefulness for the present study. Their stages are presumably based on observation or content analysis but few of them provide a linguistically informed account of the stages groups pass through or assistance in recognising these stages. However, the recent SFL-informed studies by Coffin et al (eg 2005a; 2005b) and Piriyasilpa (eg 2009), have provided such models of discussion structure, including the presence of features characteristic of both written and spoken language and considerable embedding of elemental genres and genre fragments. In the sections which follow I gradually build up a description of asynchronous online discussion which aligns closely with the latter class of structural description.

4.3 Online discussions incorporating features of written and spoken discourse

The first mode-related aspect of online discussions (and also emails) to attract the attention of researchers was their 'hybrid' nature, meaning that they embody features normally associated with both spoken and written discourse, as briefly mentioned in previous chapters. Early studies sought to quantify the relative proportions of such features or derive gender-based differences in online communication. Using a corpus-based approach to analysing academic support discussions (in a listserv), Yates (1996) concluded that computer-mediated communication (CMC) of this type is closer to *writing* in terms of vocabulary range, lexical density, frequency of overall pronoun use and the usage of modals overall. It is closer to *spoken* language in terms of (lower) lexical variation in the text and highest of all in the preponderance of 1st and 2nd person reference. In terms of text production, Yates (1996, p. 39) sees written practices prevailing:

> "CMC users package information in text in ways that are more written- than speech-like. Rather than the making of literate texts into oral ones, we are possibly seeing here ... the 'textualisation of sociality' through CMC. That is, users of CMC systems may be bringing their literate production practices to an interactive, social and orally-oriented interaction".

Herring's aim (1996, p. 81) was to compare male and female CMC communication. To enable this, she posited a basic electronic message schema of *Link to an earlier message ^ Expression of views ^ Appeal to other participants* (p. 91). Seventy to eighty percent of posts had Stages 1 and 3, taken by Herring as evidence of interpersonal meaning-making; some gender-related differences did become apparent. The structure of posts most closely resembles interactional

(written and spoken) texts types such as personal letters and conversational turns (p. 92). Moves of the 'expository schema' are often found in the body, in which participants make ideational meaning.

Baron (1998) rejected a dichotomous distinction between spoken and written language. Instead, she places 'electronic language' (in emails but also in listservs and other technologies similar to online discussions) on a spectrum of written to spoken modality on a range of criteria such as proximity, identity, editing, lexical features, politeness and humour. She concludes that email is most like writing with respect to social dynamics, most like speech as regards lexicon and style and mixed for format and syntax. She also proposes that user perceptions of the spoken-written nature differ and that the 'seemingly schizophrenic' nature of email reflects an 'ongoing creolization' which will eventually stabilise.

Hewings and Coffin (2004) likewise describe conference messages as reflecting a hybrid character. They observe that 'like email, they have features that are strongly associated with both written text and spoken discourse' (p. 152). For example, they found a high level of pronoun use, particularly 1st and 2nd person, typical of spoken discourse. An analysis of two online conferences (Coffin et al 2005b: pp. 54-55) identified linguistic features typical of spoken (ie pronouns, contractions) and written language (eg nominalisations and formal cohesive adjuncts). Argumentation stages related to both dialogic moves and written argument genres were identified (2005a); online discourse was described as 'print-based speech' (2005c, p. 53). Similarly Piriyasilpa (2009) found that features associated with both spoken and written language were combined in an online discussion by non-native speakers, reflecting 'a balance between two social purposes of the participants: the purpose to create solidarity and the purpose to address the task' respectively (pp. 365-366).

Thus researchers are agreed that features of both written and spoken language are present in online discussions, visible in both linguistic and structural aspects. Such discussions are thus described as hybrids or creoles. Regarding structure, research findings identify written genres and genre fragments embedded in (or bracketed by) conversational or dialogic moves, findings replicated in the present study. However, judging by earlier survey responses in the present research context, discussion participants are often unsure to what extent their posts should resemble written or spoken language. This is of particular concern to them where discussions are public and assessable rather than private emails or text messages. I propose that this ambiguity has a profound impact on discussion structure, the communication which occurs online and even participants' satisfaction with the experience.

4.4 Interaction patterns in asynchronous online discourse: quantifiable data

A further means for exploring mode as structuring the discourse is in terms of interaction patterns within threads and thread patterns within discussions. The technology affords opportunities for reading and making posts which participants may interpret and respond to in different ways by. Interaction patterns are amenable to quantitative analysis. However, there are challenges that arise when analysing thread structure, resulting from the tension between the synoptic linear display of texts in the transcript and the more dynamic hyperlinked and branching interaction patterns created over time. The sequencing of posts in the transcript created by the learning management system and used as a basis for analysis in this study is a compromise between chronological and thread order. It obscures important elements of the interaction. To overcome these limitations, both thread chronology tables and thread maps were developed to better track chronological sequence and interaction structure respectively, as outlined in Chapter 3. Even so, these maps cannot account for semogenesis in these discussions – the way they are experienced by participants as a constantly evolving text and store of knowledge (see Section 4.4.4)

An examination of interaction patterns (for example who starts threads, who answers, to whom and when) sheds light on the role of both moderator and participants in shaping the discourse. Similarly, it illuminates how interpersonal meaning is negotiated, for example by attending to the completeness or otherwise of exchanges, and how ideational meaning is constructed, for example by attending to response patterns, density of posts and length of threads. Even at this level of formal or 'technical' structuring of interaction, guidelines for activity design and moderation can be proposed.

4.4.1 Chronological posting patterns

Chronological posting patterns, that is, the timing and authorship of initial, subsequent and final posts in each thread, provide the first level of insight into discussion structure. Thread chronologies were prepared to map these features (see Appendices 1.6.1, 2.6.1 and 3.6.1 and explication of these in Appendix 4). Typically, threads start in a staggered pattern. Students and moderators 'hold the floor' to differing extents, with threads continuing for some time then dissipating as other threads are initiated and become active. Variables include the number and length of threads, who starts them (students or the moderator), thread overlap

and the opportunistic 'clumping' of student posts in the same or multiple threads in a short time frame.

There are significant differences between cases and, within Case 1 only, for different groups. Case 1 (Infectious Disease) is marked by considerable variation in the length and number of postings and threads per discussion, despite similar scenarios and questions. There is an inverse relationship between the number of moderator and student posts, and between the length and number of posts. Two thirds of these discussions consist exclusively of threads started by the moderator; moderators rarely post within threads and threads are promptly abandoned as new ones are started. Three or four concurrent threads are commonly maintained. Discussions in Cases 2 (Obesity) and 3 (Tobacco) resemble each other quite closely in most quantitative respects, so they have been grouped together for comparison with Case 1 (see Appendix 4). Both moderators and students post more often in Cases 2 and 3 and students at greater length; there is more overlap between threads and there are more concurrent threads. In these latter cases students are more likely to initiate or re-name threads and moderators to post within threads.

There is evidence of a change in interaction patterns in Case 1, Group 3, over Modules 1-6 which comprise an entire semester (the other discussions were tracked for shorter periods so logogenetic progression could not be meaningfully tracked). Some aspects – length and overlap of threads, moderator posts within the thread – remain fairly constant. However, the number of threads jumps, the number of student posts increase although they became shorter and students become more inclined to start threads. By Module 6, this group's interaction patterns are starting to resemble those of Cases 2 and 3, although the group's domination by one extroverted student may be a factor in this. These points will be taken up in subsequent chapters where I examine logogenesis in this discussion, particularly as regards interpersonal meaning, and the impact of the assertion of individual identity.

4.4.2 Mapping interaction in threads

Unlike thread chronologies, *Thread maps* show interaction patterns within each thread regardless of *when* posts are made. They show who initiates a thread, who replies to the initial post, who replies to subsequent posts, how long the threads are, how many posts receive no reply, how many parallel threads develop and so on. This provides the second level of insight into mode influences on interpersonal and ideational meaning-making.

A map of Thread 2 from the C1M3G3 discussion is shown in figure 4.1. It shows that, in response to the Moderator's post (18), eight students post, potentially starting new threads. Only half of these posts receive a reply, leading to three simple linear threads of 2 or 3 posts and one more complex, branching thread with two parallel sub-threads. The 'branching' of threads is afforded by the technology (hyperlinking) and as such is a feature of asynchronous online text-based communication. Less use is made of branching in Case 1 discussions than in Cases 2 and 3.
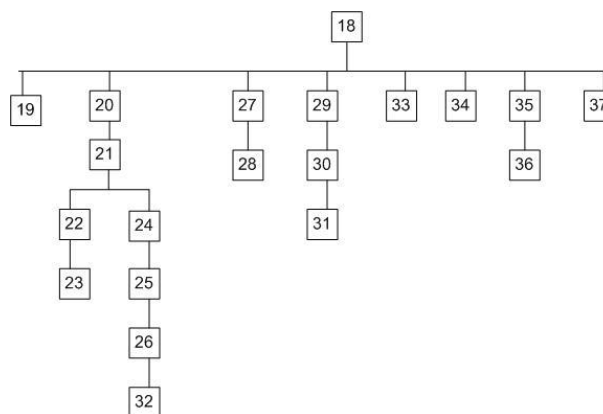
Figure 4.1 Sample discussion: Thread 2

4.4.3 The significance of replying

The thread map shown above gives rise to an interesting question: what does it mean to reply to a post? Replying may be understood in two ways. One of these is in the *technical* sense of clicking on the **Reply** link attached to a message to write and submit a post, thereby adding to the thread; the map above shows reply patterns in this technical sense. Replying may also be understood in a *conversational* sense: replying to the cognitive and/or interpersonal meaning of another person's text. In the discussion below, replying in the strictly technical sense is designated thus: 'replying' and replying in the conversational sense as 'responding'.

The thread maps show who is 'replying' to whom. But 'replying' does not seem to guarantee that the writer is 'responding' to that specific post from that specific individual. A preliminary analysis uncovered the following patterns in student responses:

- 'Replying' to a post but making no acknowledgement of any of the prior discussion, leading to a series of parallel monologues. This occurs particularly with direct 'replies' to moderator initial posts, which might occur some days after the discussion has started, as shown in the thread chronologies. Replying in this way may mean that no other posts have been read.

- 'Replying' to an individual but making a broad general acknowledgement of the prior discussion without mentioning the individual.
- 'Replying' to the individual and explicitly acknowledging his/her contribution (possibly together with that of another student), i.e. 'responding'.
- 'Replying' to an individual but referring to another student's post.
- Not 'replying' and instead starting a new thread or re-naming an existing one, with or without acknowledgment of prior content.

Evaluating interaction is complicated by ambiguity surrounding the audience for a given message. Is it only the writer of the message being replied or indeed responded to? Is it the writers of all messages in the thread or of all previous posts in the discussion? Is it the moderator who will be assessing discussion contributions? Is it the whole discussion group, similar to the audience for a mailing list (Don, 2007), or perhaps an 'ideal' reader, without reference to real readers present? Even if students 'reply' to the moderator's very first post, ostensibly replying to the ideational or interpersonal meaning contained therein, they will be aware of the wider future audience for the reply. Further, a student may have read numerous posts and simply chosen one of them to 'reply' to. A student may even start a completely new thread and not be 'replying' to any specific group member. A 'reply' at any time *may* be in response to the pool of ideational and interpersonal meaning already existing in the discussion at that point. However, there is no guarantee in any given instance that previous posts have been read. Moderator 'replies' are less frequent, generally reference the group and occasionally individuals, and occur either within a thread or at the initiation of the next. Case 2 and 3 moderators posted in both ways while Case 1 moderators tended to respond at the beginning of the following thread.

To clarify interaction patterns beyond 'replying', the Thread 2 map from Figure 4.1 has been annotated (Figure 4.2) to show instances (dotted lines) where previous contributors or contributions are expressly referred to (i.e. 'responses' rather than 'replies'). This excludes salutations which are regarded as formulaic. Figure 4.2 also shows (using the label GEN) where students responded to previous posts or contributors in a general sense. In this thread it is actually rare for a post to *respond* to the post it is *replying* to; 25 replying to 24 and 36 replying to 35 are the only examples, although in other cases alignment between replying and responding is more common. Other responses are to posts at some remove, leading to a complex patterning of responses. It is clear that apparent interaction (technical replies) does not necessarily correspond to real interaction (conceived of as responding to interpersonal and

ideational meaning). Interestingly, the technology encourages replies to individuals while students respond in a more diffuse way (i.e. to additional participants singly and as a group), which accords more with concepts of collaboration and community.
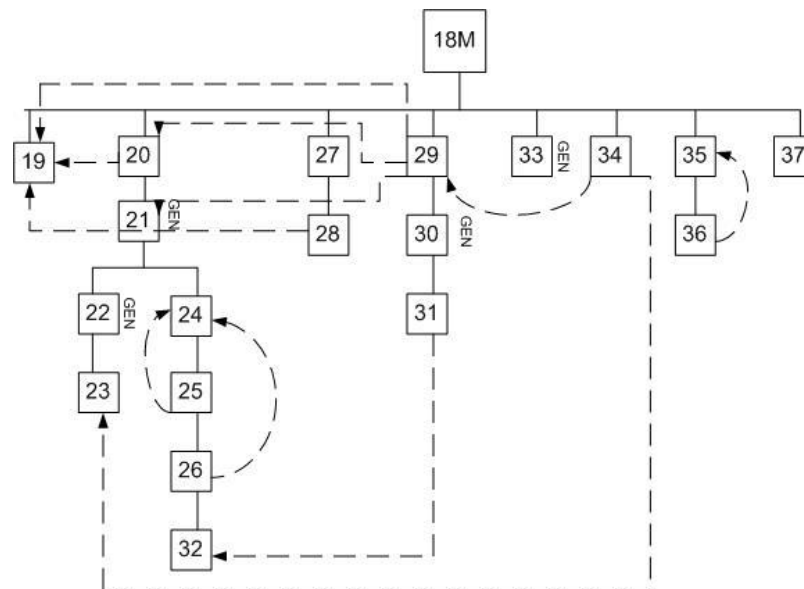
Figure 4.2 Sample discussion thread 2 annotated to show response patterns.

The annotated thread maps for selected discussions are available in the appendices.

4.4.4 Semogenesis in online discussions

The complexity of analysing asynchronous online interaction is underlined by the need to view the data using the two lenses of chronological sequence and interaction patterns, with caveats applying to the latter ('replying' vs 'responding'), as outlined above. The issue of chronology is however more complicated than this implies. This partly results from the *synoptic* view a researcher must take of the completed discussion and the more *dynamic* experience students have of it as they read and post, which is inherent in the mode.

The analytical challenges posed by the mode resemble in some respects those described by Zhao (2010) with respect to hypertext. 'Hypertext' refers to the linking affordances of web pages or multimedia screens, which may be bounded (within the resource) or limitless (out to the Internet). Hypertext is typically pre-designed i.e. given; users create their own path and sequence through it. Asynchronous discussions resemble hypertext in that users may create their own path, either from the index, or by clicking on posts selectively or in a linear fashion. However they differ from hypertext in that the resource is not complete to start with, instead

being collaboratively created by participants as they contribute. The potential meanings available to users therefore change as time passes (p. 203). This complicates the definition of text boundaries and characterisation of a participant's experience or 'reading' of it.

Logogenesis (the unfolding of a text in time) is of course a feature of any spoken or written discourse. In a conversation, for example, the text is created and experienced in real time but, under normal circumstances, there is not much optionality in how it is heard by participants. A written text usually exists as a completed entity for the reader, who may however exercise considerable discretion in deciding which parts, if any, to read or re-read and in which sequence. Online discussion shares both the progressive creation of conversation and the flexibility of access of written texts and hypermedia.

These considerations are relevant to the question of how to determine the 'logogenetic unit on which the descriptions will be built' (Zhao, 2010, p. 207). Zhao uses the concept of 'traversal' (p. 196, referencing Lemke) to describe the individual's path through hypertext. She proposes that the 'critical path', the minimal route needed to accomplish the task in the interactive resource, be used to determine the logogenetic unit. Applied to the present context, a critical path for an individual would presumably be reading the moderator post and posting a response. Perhaps it is a 'response' and the post it is responding to. However in Zhao's study, 'critical path' refers to an individual interacting with a resource; in the present context the numerous interactions with others and with the text as it is progressively created render this difficult to define. Perhaps the concept of *completed exchanges* (see 4.6 below) might be more useful for describing the logogenetic unit. On the other hand, the post as such has some claim to being a 'semantic unit' in its own right (p. 201, also Don, 2007).

Acknowledging this indeterminacy, neither a unique unit of analysis nor a logogenetic unit will be defined for this study. The analysis will therefore have a layered approach to units of analysis, which may be the whole discussion, the thread, a reply or response sequence or the individual post, depending on the local purpose of the analysis. Given that my approach is discourse-semantic, not lexico-grammatical, and that statistical analyses are not proposed, this fluidity in units of analysis would appear to be unproblematic.

4.4.5 User experiences of discussion structure

Data collected in free text survey responses revealed student frustration with certain aspects of mode. Relevant responses are summarised below. Note, however, that these are illustrative only, due to low response rates.

Some respondents found interaction was at the written end of the continuum:

> *Some made postings similar to assignments (C3R3)*

> *I feel I am reading essays (C3R 9)*

Many were frustrated when their posts drew no response:

> *Sometimes it was frustrating if you raised a question and there was no response. (C3R5)*

> *...it was occasionally a bit off putting when I would try and foster discussion but people did not respond. Being a 'thread killer' is no fun (C3R8)*

The sheer volume was posts and their length made them difficult to follow, impacting learning:

> *... time consuming to read and difficult to remember all the points ... (C3R7)*

> *Discussion ... difficult to follow (C2R3)*

> *Difficult to keep up with ... frequent, detailed postings ... time-consuming ... a large commitment (C3R2)*

> *... can become overwhelming (C2R1)*

The permanent and visible record concerned others:

> *... this is very different from face to face tutorials where what you say isn't up there in black and white for all to see – it does tend to make you think before you write' (C2R4)*

while the discussions were often perceived as unstructured:

> *...people were entering their blogs all over the place and I found it diffiduclt to follow threads of argument. (C2R6)*

> *...not a lot of structure... (C2R4)*

These comments support some of the observations made above concerning mode: features such as the absence of responses, the lack of a clear argument structure and the constraints of a visible and persistent text impact learner activity, learning and satisfaction.

4.4.6 Interpreting interaction patterns

The mode and its interpretation by discussion participants have the potential to impact the development of both interpersonal and ideational meaning. This may happen in a number of ways, as outlined below. It should be noted, however, that these observations remain conjectural at this time, requiring further empirical study based on linguistic analysis.

Interpersonal meaning

One aspect of discussion structure which potentially impacts *interpersonal* meaning has to do with the volume and density of student posts and the extent to which both parties reply to posts or ignore them. For example, a higher level and density of student postings may be a proxy measure of their interest and enthusiasm (once minimum contribution rates are achieved). It represents greater acknowledgement of the presence of others and their contribution, increasing social presence and a sense of community, thereby supporting learning (see Chapter 5). Conversely, an absence of replies to posts potentially reduces the feeling of belonging and being valued, reducing satisfaction for affected students. Density of moderators' posts may be a proxy measure of their interest and involvement; this in turn influences student perceptions (e.g. Mazzolini & Maddison, 2003). However, teacher 'talk time' was considerably lower overall than in face to face contexts, matching constructivist paradigms but potentially not meeting at least some students' expectations, leading to dissatisfaction on their part. Moderator replies within the thread may show engagement with the discussion and affirm students. Delaying a post until the next thread potentially impacts on interpersonal relationships, as participants do not perceive that they are being 'heard'.

Ideational meaning

Factors potentially impacting the development of *ideational* meaning include the breadth versus the depth of threads, their overlap, their density and patterns of response and branching. For example, greater *depth* (fewer but longer threads) might indicate student involvement in the topic (or inertia or a lack of technical skills to start new threads). Longer posts and threads allow more related content to be brought into the arena and also allow for the more complete development of arguments. Greater *breadth* (more, shorter threads) may indicate reduced interest in individual topics or lines of argument or alternatively a willingness to engage with multiple perspectives. Branching potentially allows students to engage with additional or alternative viewpoints simultaneously, enabling more complex elaborations and arguments. However, this complexity may hamper the navigation of posts and keeping track of ideational content. Tracking the development of ideational meaning as a researcher is complicated by the fact that it is not possible to discern whether students have read all or any posts prior to making a specific post. This is clearer where the content of other posts is specifically mentioned, but the absence of such references does not mean earlier posts were not read. This is supported by the very much higher number of posts typically read by students, compared to those made, in these discussions. Where posts receive no replies from

other students or moderators, the development of ideational meaning is impeded (for example no replies to questions, no response to ideas proffered, no development of argument structures). Delayed responses from moderators, particularly if they are postponed to the following thread, likewise inhibit ideational meaning-making in that students are unable to gauge the correctness or otherwise of their (and others') answers.

Learner characteristics

Interaction patterns may also shed light on learner behaviour and preferences. For example, the rapid abandonment of a thread once the moderator has started a new one could indicate lack of interest in the topic and/or a strategic focus on responding directly (and promptly) to moderator posts, possibly perceived as helping to maximize marks. The number of threads *started* or re-named by students, as opposed to those started by the moderator, may indicate a more confident cohort, inclined to contribute and participate on a more equal footing with the moderator, as suggested by the notion of 'democratisation' in online discussions. Fewer or no threads started by students and a tendency to reply directly to the moderator may indicate individual learning preferences (for example, authority-centred and/or unconvinced of the value of peer learning) or lower levels of personal, technical and linguistic confidence.

A question also arises as to factors contributing to the variations noted between these discussions. Learner characteristics and preferences are an obvious candidate, as noted above for thread initiation. Previous educational experiences and expectations (cf Chen, 2010) as well as technology skills and confidence also play a role. It is worth noting that Case 1, with the highest percentage of students of non-English speaking background or not educated in an English-speaking country, showed the lowest number of student-initiated or student-renamed threads. Other possible candidates include the disciplinary field (here, quasi-clinical vs sociological with different perceived levels of latitude for 'new' knowledge); activity type (e.g. scenario-based or readings-based), moderation style and frequency and learner interest in the topic. Added to this are external factors, for example assignments or work commitments, impacting on participation. These points will be selectively taken up in subsequent chapters.

Constraints to interaction can also flow from pedagogical decisions rather than from mode. The decision to assess discussion participation may bias task and question design and increase the volume of postings. Assessment combined with posting visibility means originality becomes increasingly difficult. Collaboration potentially morphs into competition and reflection into hasty replies.

Some general guidelines for moderation and student participation flow from the way the mode functions to structure the discourse. For moderators, the volume of contributions needs to be carefully managed to avoid student participation falling off. The simple expedient of posting within threads to move the discussions along, and at the end of threads to evaluate responses, validate students and provide some certainty about correctness of responses and argumentation facilitates both interpersonal and ideational meaning-making. Modelling and encouraging student responses to peers as well as moderators, and responses which engage with the content of messages rather than merely technically 'replying' may likewise support the development of relationships and learning. Students collectively control the length, concurrence and branching of threads and the initiation of new ones. However, the consequences of individual decisions (such as starting numerous new threads or posting lengthy messages) for the community (complexity of navigating and understanding, reading load) are rather more complex to model, and are overlaid with the strategic imperative to maximise grades. Issues such as inexperience with online learning and lack of linguistic confidence will be overcome in time, for the individual and students in general. Beyond the simple measures noted above, even the analysis conducted thus far should cast doubt on any notion that online discussions are the same regardless of educational or disciplinary context, cohort characteristics or activity type, and that one set of guidelines for moderation or one set of research findings will cover all possible discussions. Contextually sensitive moderating styles as well as further research into the mode issues raised above in a range of different pedagogical contexts are called for.

4.4.7 Mode considerations for online discussions

To this point the issue of structure has been explored from the perspective of mode. Analyses have been primarily quantitative, based on interaction patterns evident at the level of the post and thread. I examined the kinds of textual meaning participants construct within the opportunities and constraints afforded by the technology. Opportunities are provided for reflection and interaction which are not time or place dependent and for the development of supportive communities. Features which may work against these affordances for participants include navigational ambiguities and difficulties keeping track of ideational meaning in a multilogue that is constantly being created in a number of concurrent, parallel threads. Fractured interaction patterns and the absence of replies (especially from moderators) impacts both satisfaction and learning. Constraints at the level of postings include their public,

persistent, text-only and attenuated nature and participant inexperience with the genre. Learner characteristics and preferences were also seen to influence the structure of interaction. All of these potentially impact on the negotiation of interpersonal and ideational meaning. I now turn to linguistic analysis, to examine the way the negotiation of roles and relationships structures the discussion.

4.5 Structure as negotiation

In this and the following sections the focus shifts to a second register variable, that of tenor, to address questions of participant roles and relationships and issues of expertise and control in structuring the pedagogic exchanges. I examine the negotiation of structure within and between posts at the level of discourse, considering how structure is achieved by means of initiating exchanges and requesting knowledge and action from others. The analysis undertaken here provides a basis for additional analyses in subsequent chapters, including explorations of knowledge construction and of the extent to which the interaction might be regarded as more 'democratic' than that of face to face classrooms.

A starting premise in the discussion to follow is that online discussions feature choices characteristic of both spoken and written language as well as dialogic framing of written-like texts (Section 4.3 above), and further that they are pedagogic in purpose. Even the most cursory examination of the data reveals dialogic elements that resemble casual conversation: the initial greeting and signoffs of the 'talk soon' variety, as well as elements resembling pedagogic discourse: praise, endorsement of student contributions and content-related questions. We also discern longer passages of content-related text, mostly from students and occasionally from moderators. In other words, we note the possibility of multiple genres within these texts, and the need for analytical tools appropriate to each of them.

The section begins with analyses of the discussions as spoken exchanges using exchange structure analysis in the system of NEGOTIATION. As noted in Chapter 3, exchange structure analysis has been used to analyse both casual conversation and, appropriately for this study, classroom discourse. In this section I tease out what exchange structure analysis tells us about the negotiation of meaning in this specific context. The move types and exchange structures represented are described and their pedagogical function explored. The examples are largely taken from Case 1 Module 1 Group 3 and examples from other cases are used where appropriate. In the final part of this section methodological issues are addressed, particularly

what the application of this tool to a new type of interaction tells us about exchange structure analysis itself.

4.5.1 Greetings

Greetings, which feature in the 'chat' component of casual conversation, are also present in online discussions. Many moderator posts feature an initial and/or a closing greeting (GR) move (leave-takings are subsumed under GR moves):

> *Hello group 3! / Welcome to your first module ...*

> *So good luck, and enjoy!*

> *Speak soon!*

Students also used GR moves, albeit less frequently:

> *Hi everyone!*

> *Cheers!*

Both parties occasionally added their name after closing GR moves (not strictly necessary, since the message header identifies them). This move is not found in casual conversation; it is more closely aligned with written communication such as letters and emails and can be referred to as a ***sign-off*** or ***signature***:

> *GR   Speak soon!*

> *Signature: Emily*

Although the frequency of such greetings varies between discussions, they function in general terms to create and maintain a warm, friendly and personal atmosphere in the discussion, as suggested by notions of social presence (e.g. Rourke et al, 2001).

4.5.2 Moderator K1 moves: self-introduction

The first virtual contact between a moderator and a group in Case 1 (Infectious disease) usually includes the moderator's self-introduction. These self-introductions are generally an unproblematic series of K1 moves realising subjective information over which the moderator has control:

> *My name is Emily Carpenter/*

> *and I will be group 3's tutor for all of the modules in your [name of] course./*

> *I work as a lecturer here ...   (C1M1G3)*

These self-introductions are not encountered in Cases 2 and 3 since moderators and students have met in prior workshops.

4.5.3 Moderator K1 and dK1 moves: Establishing the scenario and asking the first questions

In Case 1 the moderators mostly describe the scenario in a series of K1 moves (coded as K1 rather than dK1 since, although they preface to questions, they are not actually questions themselves), then ask a question:

K1   *A GP from western New South Wales calls you. /*

K1   *She reports that an increasing number of her patients have difficult to treat skin infections, some of which are causing quite deep seated abscesses. /*

dK1   *What kind of things might you be concerned about?*

(C1M1G3)

Occasionally, questions are preceded by **'headings'** which, like **signatures**, are not found in spoken conversation but are common in written texts. In this case the moderator starts the scenario with 'so', which often designates a phase boundary in classroom discourse.

So:

K1   *It is mid-summer, /*

K1   *two cases of encephalitis are reported from separate localities of the northwest of NSW /*

K1   *and one of the patients has died./*

...

Heading   *Question 1*

dK1   *What are the possible arboviral causes on this illness?/*

Heading   *Question 2*

dK1   *What should be done to determine the causal agent?/*

This moderator occasionally uses A2 moves as part of her instructions, for example: *but please only answer one of the questions below!* However, due to her extensive use of interpersonal metaphor (discussed in Chapter 5), most instructions must be coded as K1 moves describing the activity, following Hunt (1991).

In Case 3, Tobacco Control, the scenario is introduced in a series of requests for action (A2) moves alternating with K1 moves describing future learning activities and the scenario, as for Case 1. Task instructions for Case 2 (Obesity, featuring readings-based rather than scenario-based activities) are similarly patterned, albeit with greater use of interpersonal grammatical metaphor (see Chapter 5).

4.5.4 Student K1 moves: Linking and acknowledging

A sizable minority of student reply posts start with moves which acknowledge another's contribution. These moves may be specific:

> *I would add a few points to Student qq's*

or general:

> *someone has mentioned an epi. curve ...*
>
> *as earlier mention ..*

These moves briefly delay the K2: A1 move complex in response to the moderator's dK1. Their linking or 'acknowledging' fulfils an interpersonal function, although it could be that their main function may be to demonstrate (for assessment purposes) 'interaction'.

These moves might at first appear to constitute a follow-up (f) move. Martin (1992) shows follow-up moves made by a *different speaker* to that of the move they follow, but within the same exchange. However, examples in Martin et al (2009) show follow-up moves made by the *same* speaker (p. 59); these are very short ('Yep' 'OK' 'Thanks'). It would appear that linking or acknowledging moves in the case study discussions do not unambiguously meet the criteria for follow-up moves. Thus they are coded as K1 moves (personal information the writer has control over, following Hunt, 1991).

4.5.5 Other features of response moves

Students quite commonly quote the moderator's question or a peer's question in their reply, either verbatim or slightly paraphrased, probably to provide clarity and cohesion (eg Post 9 in the sample discussion); such quotes are here considered to be part of the K2 move complex in response to the dK1 move.

Also fairly common is the tendency for students to provide meta-comments on their own postings, for example:

> K1   *This is the first post so I kept it broad./*

> *K1   I also kept it relatively short so other people can contribute. /*

As with linking and acknowledging moves, these were coded as K1 (subjective knowledge the student has control over). Following such moves students quickly switch to K2 moves:

> *K1   I am posting for the first time as I've been carried off by certain circumstances./*

> *K1   I know the consequences but that is fine./*

> *K2   Anyway there may be a need to carry out a quality analysis on the drugs being prescribed...*

The patterns noted above appear to be stable across all discussions studied. The appendices contain exchange structure coding samples.

4.5.6 Dynamic moves: tracking and challenging

As noted in Chapter 3, dynamic moves are moves which interrupt the adjacency pairs within an exchange and serve to facilitate or frustrate the movement to completion (Hunt, 1991, p. 75). They are of two types: tracking and challenging. Tracking moves ensure that exchange participants share *experiential* meaning while challenging moves resist in some way the *interpersonal* thrust of an exchange.

Tracking moves include requests for clarification, which in the discussions studied often revolve around administrative matters:

> *I take it the question is posed at those who haven't answered twice?*

Students seeking clarification often use incongruent forms, particularly 'just wondering', for example Liqin in Case 2, Post 56:

> *'I was just wondering about the two threads you mentioned ...'*

There are limited examples of challenging moves in my data, perhaps unsurprising given the need to maintain good interpersonal relationships and the public nature and persistence of the text produced. However, some *conflict* does occur in the cases studied, over matters such as the definition of 'sex' and 'gender' in Case 2 or the use of blood donation services as screening for HIV (Case 1, Group 3, Module 6). I defer discussion of these to later chapters.

One type of challenge is to ignore another party's move. It could be argued that, where posts receive no replies, this may theoretically be 'read' by their authors as a challenge. Survey responses suggest that this is keenly felt by some participants, as noted in Section 4.4.

4.5.7 Student K2 move complexes: Answering the question

Questions posed by the moderator typically receive numerous compliant K2/ A1 responses, for example:

> K2   *I think that the first step in the investigation of the potential outbreak is to classifly what constitutes a case.*
>
> K2   *A 'skin infection' is a very broad term /*
>
> K2   *and will encompass many conditions.*   *(C1M3G1P9)*

A series of moves of the same type is considered to be a *move complex.* These student responses then are K2 move complexes. Across the three cases they showed considerable variation in length (from one sentence to over 1,500 words) and in internal structure. They more closely resemble written than spoken texts, in some cases constituting 'mini-assignments', and appear to represent whole or fragments of written genres used in pedagogical contexts. For clarity, I postpone description of these until Section 4.7 below, in order to first complete the analysis of exchange structure.

4.5.8 Summary of move types

The exchange structure analysis above has identified a wide range of move types. The patterning of these has proved comparable to that identified by Eggins and Slade (1997) for casual conversation: the chat + chunk pattern, reviewed in Chapter 3.3 (cf Piriyasilpa, 2009). The equivalent to the 'chat' component provides a dialogic matrix for the interaction and consists of moves found in casual conversation and classroom discourse, for example greetings and dK1 questions. This component represents a far lower proportion of discussion texts than Eggins and Slade found for casual conversation and is not amenable to genre analysis. The equivalent to the 'chunk' component is more monologic, consists of K2 move complexes embodying written genres or genre fragments, is amenable to genre analysis (see Section 4.7) and takes up the major part of the interaction. Although there was some variation between discussions, in general moderators used the full range of move types while most student postings were (not unexpectedly) K2 move complexes, with limited use made of the remaining move types.

However, the description above needs also to be understood as a simplified schematic, since, as I show in subsequent chapters, students from time to time make moves normally associated with teachers, for example validation of answers and asking rhetorical and genuine questions, as well as interpolating some interactive elements into their K2 move complexes. The terms

'chat' and 'chunk' do not seem appropriate in this context and it is tempting to substitute terms such as 'interaction' for chat and 'presentation' for chunk. However Eggins and Slade's terms will be retained as they have currency in the context of exchange structure analysis.

4.6 Role negotiation in online discussions: primary and secondary knowers

The structure of online discussion text is created through the negotiation of roles as well as responses to technical affordances, which were discussed in Section 4.5. Moderators as teachers have the power to ask questions for which they may already know the answer (positioning themselves as primary knowers) and to require responses from students, who are cast as secondary knowers and primary actors. This structures the text as a pedagogic exchange with, at a minimum, initiation and response moves. As noted, evaluation moves are sometimes missing in the discussion texts. Discussions in all three cases exhibit this basic structure, since they are all, to varying extents, 'teacher-centred'. The structure would be quite different in cases where the moderator does not set up or initiate the discussion, in other words a completely student-run discussion. This is not encountered in the present study.

However, there are difficulties inherent in the binary distinction between primary (K1) and secondary (K2) knowers. It is not clear whether this distinction hinges on possessing the information or adjudicating its correctness (Berry, 1981, cf Martin & Rose, 2007, p. 238). A teacher may clearly be a primary knower in classrooms where knowledge is unambiguous; however, in other contexts a K2 designation might be more appropriate (Christie, 2002), for example:

- teachers asking students genuine questions
- a learning activity structured as a discussion or exchange of opinions, particularly at the higher levels of secondary schooling and in higher education, in which the teacher takes a less directive role
- teachers deliberately positioning themselves as secondary knowers in contexts where there is no single correct answer, such as joint text construction, in order to give more power to the students (Hunt, 1991, p. 61, Dreyfus et al, 2011)

If the criterion is the '*authority to adjudicate'* then any teacher or academic has this authority by definition and is de facto a primary knower. However, using this global 'authority to adjudicate' as the sole criterion provides an un-nuanced, synoptic view of the interaction. It assumes constant roles for participants rather than roles contingent on the shifting

relationships between them as well as on the specific moves and exchanges in the pedagogical interaction as it develops. I propose therefore to set the issue of adjudication to one side for the moment and consider the moderator only as *knower*.

There are two types of criteria for describing the moderator as a knower which I have termed extrinsic and intrinsic. Extrinsic factors include his or her status, prominence and reputation, which are aspects of TENOR (interpersonal meaning). These are both objectively true and also exist in student perceptions, which may vary according to prior educational experiences, learning preferences and expectations of the interaction. However, I propose also to set aside extrinsic knower criteria at this stage to focus on intrinsic criteria, namely the moderator's *semiotic self-positioning* (Hunt, 1991) as a knower.

I argue that semiotic positioning as a knower involves ways in which moderators and students discursively construct a K1/K2 knower identity. This happens in two ways: overtly in terms of professional and academic competence and experience and more implicitly in ways in which the learning activity is constructed, and ways in which questions are asked and answered and contributions evaluated. Although Hunt (1991) could find no principled linguistic criteria on which to distinguish between K1 and K2 knower types, I suggest that the system of ENGAGEMENT, not yet formulated when Hunt was writing, provides some assistance with this.

Virtual self-introductions (Section 4.5) are an ideal medium for overt self-presentation and for establishing an online knower identity. In addition, moderators sometimes reprise their professional credentials at relevant points within the discussion:

> *Along with most of my colleagues, I have actively boycotted all meetings with the tobacco industry over the years (Case 3)*

or may downplay such credentials, relying instead on a casual, anecdotal approach which may be intended to lessen distance between moderator and students, as in Case 2:

> *Schools didn't even HAVE canteens when I went to school... I shall refrain from saying when this was ...*

More significantly, moderators position themselves semiotically by the way they ask questions and prompt further discussion. This establishes the amount of leeway available for unanticipated answers. Where a moderator asks a question in a way which admits of only one, or a very narrow range of answers, emulating the IRE pattern, this reduces options for divergent or unanticipated responses and establishes a strong primary knower identity for the

moderator. Where a wide range of possibly unanticipated answers is invited by the question, the moderator's semiotic self-positioning as a primary knower is weakened but opportunities for knowledge construction as well as community building (flowing from greater apparent equality of participants; see Chapter 5) are theoretically enhanced.

The system of ENGAGEMENT (see Chapter 3) can be used to probe question wording. Briefly, a question such as this from Case 3:

> *What is meant by harm reduction?*

is unmodulated and suggests (appropriately) that there is only one answer or at best a narrow range of definitions, giving the moderator a role approaching that of a primary knower. On the other hand, modulated propositions

> *What should be your objectives in relation to it?*

open space for multiple suggestions. The moderator here is asking students to give a personal response concerning their objectives; the possibility exists of varied, possibly unanticipated responses, none of which might be viewed as the definitive answer in this situation.

Across all cases there are relatively few examples of unmodulated questions. Most questions are modulated in some way, realising propositional meaning as <u>expand: entertain</u>, for example elsewhere in Case 3:

> *So … what **might** be the consequences of all health groups boycotting such a process? Any downsides?*

Other APPRAISAL choices, for example from within FOCUS, can also serve to open up possibilities in questions. Thus in the following Case 1 example:

> *What **kind of** things might you be concerned about?*

the softened FOCUS (kind of) and the general noun (things) reinforce the impression of openness and the apparent possibility for debate and discussion.

However, asking questions, as much else in online discussions, is not as clear-cut as it at first appears. First, doing so both elicits knowledge and positions parties semiotically as knowers. Moderators (mostly) tend to subtly expand and contract space for unanticipated answers; it follows they are also subtly positioning themselves as knowers. Second, expanding space for student voices appears on occasion to result from a wish to foster debate and/or warm interpersonal relationships rather than from the true possibility of divergent opinions. Thus there is a degree of tension here between questions which are genuinely open on a cognitive

level and those which are asked in an apparently open way to maintain and increase a sense of community. As I show in Chapter 7, this sometimes causes confusion. Similarly, the way in which answers are evaluated and answers provided subtly positions moderators as knowers: categorical responses position them as K1, modulated responses potentially as K2. The latter may be at odds with students' requirements for frequent, direct and unambiguous feedback and 'correct answers'; these requirements cast the moderator as K1, leading to a clash of expectations. I discuss these factors in more detail in connection with knowledge construction in Chapter 7.

The analysis above suggests that, when asking questions, evaluating responses and providing feedback, moderators are not either K1 or K2 but instead take on roles which are intermediary. In other words, K1 and K2 might be regarded as endpoints of a continuum and moderators move between these extremes according to pedagogical orientation, activity type, field and discursive context: from expert who asks IRE-type questions to one who opens the debate to a certain extent to a hands-off guide facilitating self-directed discovery and opinion formation.

4.7 Asking for and providing a linguistic service

Applying exchange structure analysis to real data rather than idealised examples presents some challenges (Martin et al, 2009, p. 53). This is particularly true where pedagogical discourse, let alone online pedagogical discourse, is the object of analysis.

In Chapter 3 I described the provision of a *linguistic* service (LS; Ventola, 1987, p. 115) and listed explicit or implied indicators for an LS. These are the context, words such as *please, OK* and *thank you* and verbal processes, at least one of which must be present. Others must have the potential to appear. Applying the concept of linguistic service to the online environment has proven to be complex. Indicators such as those noted are found in posts, although they are spread out over longer stretches of text. In the case of *thank you*, it is not always clear what it is responding to. This situation is further complicated by the use of interpersonal metaphor rendering the questions less explicit. A further complication ensues from the (technical) mode: the frequently-encountered process 'post' (ie make a contribution to the discussion) can be glossed as either verbal (eg tell) or material (eg write). However, although specific lexico-grammatical indicators might be absent, the context of situation often suggests that a given move requests or provides a linguistic service.

In view of this complexity, applying the concept of linguistic service to online discussions may require further theorisation. The NEGOTIATION system was not developed to handle online

exchanges combining written and spoken elements. It may be necessary for example to determine a larger pool of 'allowable' process types, semantically motivated, which lies outside the scope of this study. Therefore I did not code specifically for linguistic service, pending further theoretical development of this concept, although I acknowledge that providing a linguistic service lies at the heart of online discussions.

4.8 Mapping exchanges and exchange complexes

Before mapping a tentative curriculum macrogenre structure globally for the discussions under scrutiny, the concept of an *exchange* needs to be further clarified. According to Martin and Rose (2007, p. 252), 'the basic system allows for exchanges consisting of between one and five moves'. If there is only one, it is termed the *obligatory* or *nuclear* move and must be an A1 or K1 move. An exchange consisting of one K1 move within an exchange complex is unproblematic. A solitary K1 move outside an exchange complex, while theoretically possible, may not constitute an exchange. Therefore, I will exclude one-move-exchanges from this discussion. I work with the definition of an exchange as 'a sequence of moves concerned with negotiating a proposition stated or implied in an initiating move' which 'can be identified as beginning with an opening move, and continuing until another opening move occurs' (Eggins & Slade, 1997, p. 222) and in which each speech function occurs only once (Berry, 1981). An example of this would be a question and answer exchange. Roles are constant within an exchange; if roles change, this initiates a new exchange. In this section I describe exchange structure in these discussions and consider the consequences of incomplete exchanges.

The first two threads of the C1M3G3 discussion will be used to explore exchange complexes. The posts within these threads are overwhelmingly K2 move complexes providing the answer either directly or indirectly. My intention here is not to examine this exchange complex in detail but rather to take a broad brush approach to describing the exchanges in these threads (in fact the findings apply to all case study discussions). Of particular interest are:

- The exchange as a *multi-logue*: The exchange initiated by the A2 move is completed by multiple participants, directly and indirectly, at various intervals, creating a multi-party exchange or 'multi-logue'. Moves and move complexes can be viewed as pairs, sometimes parallel, sometimes adjacent.
- The exchange as a *conversation*: If the question asked is a genuine question, i.e. the moderator semiotically self-positions towards the K2 end of the continuum, the exchange complex constitutes a completed and well-formed exchange (K2^K1).

- The exchange as *pedagogical exchange*: The exchange complex is initiated by a dK1 move and, since it is a pedagogical exchange, a teacher K1 validating move is expected. For thread 1 of the sample discussion, this occurs as part of Post 18, initiating a new thread. It is debatable whether an exchange could be considered satisfactorily completed when it straddles a boundary such as a new thread at a distance of 2 days. However attenuated interaction such as this is a feature of asynchronous online discussions.

- Adjacency of paired speech functions: this only becomes apparent to the analyst when the interaction is mapped. In interaction, adjacency resides for the *reader* in the formatted header, which shows to which post the current post is responding. Adjacency experienced by the 'poster' through the use of the 'Reply' button.

Thus, whether exchanges are considered complete and well-formed depends on whether they are considered to be initiated by K2 moves (genuine questions) or whether they are pedagogical, IRE/IRF exchanges initiated by a dK1 move (or rather moves by moderators self-positioning near one of the ends of the knower continuum). In the case of genuine questions, exchanges are normally completed speedily and within the same thread; for dK1 questions they are completed with an *evaluation* or *feedback* move in another thread after a delay, a rather attenuated exchange compared to spoken dialogue. In some cases, there was no evaluative or validating move at all. Where the K1/A2 evaluative move does not occur at all in a pedagogic exchange, the exchange may be considered badly formed and incomplete; the same is true of the numerous student K2 questions which do not receive a response. It may be that the attenuated nature and incompleteness of these exchanges are one factor in student dissatisfaction with them, especially if they are expecting conversation-like interaction or a well-formed pedagogical exchange.

4.9 Potential models for online discussion genres: written texts

The analysis in Section 4.5 showed that the online discussions studied share with casual conversation what Eggins and Slade (1997) termed a 'chat and chunk' structure. The 'chat' component is described as overtly dialogic and not amenable to genre analysis, whereas the 'chunk' component is seen as more monologic and as embodying written genres or genre fragments, rendering them amenable to genre analysis. This section therefore draws on genre theory (Chapter 3.6) to inform the analyses and description.

Genres are defined as 'recurrent configurations of meaning' enacting the recurring 'social processes of a given culture' (Martin & Rose, 2008, p. 6), as noted above. A more pedagogically-driven description views genres as 'staged, goal-oriented social processes' (Martin, 1992, p. 505). Genre analysis is undertaken for both theoretical and pedagogic purposes (teaching valued text types) and many social, service, educational and workplace genres have been described (e.g. Ventola, 1987; Martin & Rose, 2008; Eggins & Slade, 1997). Genre descriptions begin with an exploration of patterns of meanings, which enables the genre's stages and phases, including their discourse semantic and lexico-grammatical features, to be identified. Genre descriptions are not regarded as fixed or rigid schemas but rather as a resource from which choices can be made (Martin & Rose, 2008, p. 258) and an abstraction to which actual examples can be related (Eggins & Slade, 1997, p. 238).

What then is the social purpose realised in asynchronous online discussions in a pedagogical context? In a general sense, as noted earlier, it is the collaborative construction of knowledge through text-based interaction, representing a specific configuration of tenor (collaborative), field (knowledge construction) and mode (text-based interaction) variables. This configuration perhaps recurs frequently enough in 21st century educational contexts to become stabilised and accepted as a new genre in the near future (Martin & Rose, 2008, p. 259). A fuller account of this genre will be possible after the findings from this study have been presented. For the moment, it is worth noting that the case study discussions are shaped by three further parameters: that discussions are seeded by a question or discussion starter, that they are moderated and that contributions are assessed. Thus knowledge is not merely constructed and shared by collaborating, cooperating discussants but needs to be 'displayed' for grading; participation is both social and competitive. In fact, interaction with others is itself assessable. Unspoken amongst these parameters is the need for online harmony to be maintained, as suggested by the rules of netiquette.

4.9.1 Models for genres represented in online discussion

In the absence of any shared appreciation of the genre of online discussions, suitable models both at the macro (whole discussion) and micro (post) level are needed, and possibly for the intermediate level of thread. In terms of the whole discussion and the thread, the curriculum macrogenre (Christie, 2002), discussed in Section 4.10 below, is an appropriate structural model involving both moderator and student posts. The present section concerns itself primarily with possible models for the embedded K2 (student) clause complex at the post level.

The two academic genres to which students have the highest exposure *as readers* are in fact macrogenres incorporating multiple elemental genres, namely research papers (Hood, 2010, pp. 37 – 43) and textbooks (Martin & Rose, 2008). However, these are not typically the kinds of texts (modes) that students are expected to write. The texts that students are asked to write in assignments and essays are single-genre texts such as expositions, discussions or reports. In describing the genres embedded in discussion posts, I refer to my summary (available at Appendix 9.1, together with an explanation of how it was derived) of the main non-story genres that might be encountered in science and social sciences. As noted earlier, most public health content is drawn from these two fields. Story genres are listed in Appendix 9.2. Genre theorists (e.g. Veel, 1997; Coffin, 2006 and Martin & Rose, 2008) note that genres represent a potential; generic and registerial resources may be similar at a 'gross level of abstraction ', but a more delicate analysis shows divergence in instantiation and a different interplay of resources, as Benson, Greaves and Stillar (2001) show for film reviews.

The question(s) asked determine to some extent the genre students are expected to produce in response. Thus the question asked in Case 2, concerning age periods predisposing to weight gain, if asked as an assignment question, would receive responses comparing different age periods and coming to a conclusion (discussion genre). Explanation genre phases might be embedded. An assignment which chose just one age period and promoted it to the exclusion of all others (exposition genre) might be less well regarded. The Case 3 question – responding to a hypothetical scenario concerning cooperation with tobacco companies in harm reduction – if asked in an assignment could be addressed with discussion or hortatory exposition genres (recommending a course of action). Of the 24 questions asked in Case 1 M1, M3 and M6, thirteen require a procedural response (procedure genre), four require explanations of various types and descriptive reports and expositions (supporting one point of view or course of action) are also required.

An intriguing question exists at the level of the whole discussion, which needs to be asked before moving to genres in individual posts: do the proponents of online discussions as modes of learning envisage student participants collaboratively creating a text? Certainly formulations such as 'collaborative construction' would appear to suggest this. What appears to be envisaged, particularly in studies claiming that students do not achieve higher levels of knowledge construction such as synthesis, is not a series of individual posts each presenting a solution to the question, as assignments do. Instead, a 'text' seems to be expected which contains the collective contributions of all, including a synthesis, although it is still composed

of individual posts (unlike, say, a wiki). This resonates with Suthers' (2005) distinction between accumulative and inter-subjective knowledge construction: the former involves simply pooling information or resources while the latter suggests individuals working with supplied resources and each other's ideas to create new knowledge. One of the coding schemes commonly used to analyse online discussions (Gunawardena et al, 1997, see Chapter 2.7) suggests *sharing* in Phase 1, which may be individual and accumulative, and a range of other phases which are inter-subjective to a greater or lesser extent, including *comparing*, *exploring dissonance or inconsistency*, *co-constructing knowledge* (glossed as synthesis) and *applying* and *testing* new knowledge. Other coding schemes employ similar taxonomies.

The most likely contenders for the genre hypothetically represented by the whole online discussion are that of discussion, unsurprisingly, and the hortatory exposition. The discussion genre starts with an issue or thesis, possibly with background, then follows a series of perspectives or arguments representing different points of view and finally a resolution, position or thesis is proposed. In the case study discussions, if viewed as a whole text, the issue is set by the moderator, students supply posts with different viewpoints and there may be a resolution or thesis either from the moderator or a student. In some cases threads or sub-threads also exhibit this pattern, if the issue is significantly re-oriented or a new issue is raised. A hortatory exposition is an argument that something should be done, with supporting arguments or evidence leading to a reinforcement of the thesis. This genre would be a possibility for Case 3, particularly for sub-threads where there is agreement on a modus operandi in response to the scenario. I leave the issue of the genre of the discussion as a whole open for the moment and turn to genres visible in individual posts.

4.9.2 Identified genres in posts

In Case 1, the identified genres and genre fragments and the questions to which they respond include those listed below.

A **factorial explanation,** for example in response to the question *What are the possible arboviral causes of this illness?* This lists the factors only and as such is a partial genre; the phenomenon is identified in the scenario and question.

> *The potential causes include*

> *1. Murray Valley virus, which can cause encephalitis. However ...*

2. Kunjin virus, which can cause non-encephalitic or encephalitic illness. However ...

3. Dengue fever ...

A ***procedural text***, in this case with strong structuring links, a well-formed text which is an inappropriate response to a question asking '*What kind of things might you be concerned about?*'. Although it could be argued that the question is so vague that it is difficult to determine which genre is being elicited, possible contenders (e.g. reports, explanations, explorations) would not appear to include procedures.

Firstly, we should confirm whether it is a communicable disease. Obviously, ...

Secondly, I will call the GP to ask some relevant things ... After that, I will ask other GPs in western NSW to check ... Additionally, I will ask patients directly ...

Thirdly, I will collect ... Meanwhile, all the suspicious case ...

Fourthly, I will check ... and get a conclusion whether it is an outbreak.

Finally, I will use some epidemiological methods to investigate ... and support some proposals ..

A ***hortatory exposition*** (what should be done) in response to the same question; the temporal elements (first step/ once) also hint at a procedural text:

I think that the first step in the investigation of the potential outbreak is to classifly what constitutes a case. ...

Once a case is defined it would be important to get information from other sources where people may present, ... Rates of infection and abscess could be compared ... It would also be important to liase with local pathology centers to see if ....

In response to the question

If you found out there was a problem with antibiotic resistance, what would be the process for developing control measures?

Post 45 combines a procedure (Steps 1-3) with a hortatory exposition (we should ...); Post 46 is similar except that some of the steps are nominalisations. In Post 49 of the same discussion, the moderator asks:

What sort of specific control actions would be worth considering in this case?

Sam responds with a well-formed and appropriate hortatory exposition (Post 52). The next question:

How would you know whether your controls have worked or not?

seems to require either a consequential explanation or procedure; both were forthcoming in answers.

Thus in Case 1 students are confronted with numerous questions implying a variety of genres in responses; some questions are too vague easily to discern the required genre. Students sometimes supply the required genre and sometimes not. Genres in responses are often incomplete, in the sense that the first stage, for example the phenomenon or aim, is supplied in the question and not in the response. Students and the moderator thus may be regarded as jointly constructing the embedded genre(s).

In **Case 2**, eligible posts from the first 4 days generally contained descriptive reports (most numerous) or expositions, often hortatory. This matches neatly the moderator's encouragement of both research findings and personal opinions. The descriptive reports were mainly paraphrases of published papers and occasionally referenced personal or professional experience. Many started with a reference to a published study, for example:

In the study from Suder (2008) on ... (P2)

.. an article ... it looks at obesity in Aust adults... (P6)

The following post also has an embedded factorial explanation for weight increase in young people

Canada and the US have considerably different aggregate national prevalence rates ...; (P8)

and a one-sentence argument from an exposition. Interspersed are personal references *('from my recollection')* and references to peers. P12, P16 and P18 also contain descriptive reports.

Hortatory expositions (what we should do) were also present, for example:

Should we not also consider the other parameters ... (P4)

... I think we just have to expend our energy on promoting ... (P21)

In **Case 3** we find considerably longer posts which enable genres to be more fully developed, and we also find a greater variety of genres. Examples are:

A *report*:

> Governments in Australia have always been strong advocates of pillars one and two, preventing
> of initiation and encouraging smokers to quit (1). The third pillar, to protect non-smokers ... The
> forth pillar, harm reduction is a more recent issue ....

An *exposition*, with a thesis, four arguments, two concessions and supporting evidence, some
of it quoted from sources, in P4. It lacks a reinforcement of thesis but deliberately opens the
discussion to others (*Seems to me ... What do others think?).*

A *discussion:*

I'm in two minds about this one: On the one hand ... On the other hand .. (P9) which also lacks a
final position or reinforcement of thesis, leaving space for others to pick up on the ideas
presented.

 Hortatory expositions:

> *.. regulations should be clearly stipulated ... that snus is part of a cessation program for current
> smokers only* [Thesis] *.. it still contains known toxicants* (A1) *... may have used NRT* (A2) *... not
> some kind of replacement therapy* (A3).. *Hence current smokers should be differentiated from
> ex-smokers....* [Recommendation] *(P13, also P22 and P23).*

In addition, naming, greetings and sign offs are more numerous in Case 3 than in other cases,
perhaps reflecting email or email list conventions, with which these (predominantly) health
professionals would be familiar.

4.10 Towards a curriculum macrogenre

The sections above have clearly demonstrated the complex structure of these online
discussions. This structure can be discerned not only in quantifiable interaction patterns built
on technological affordances but also in patterns resulting from the negotiation by participants
of their roles in the interaction. It exhibits features of casual conversation, spoken pedagogical
exchanges and written academic genres or genre fragments as participants draw on their
knowledge of familiar genres to negotiate the unfamiliar. In this section, I use the findings of
my analysis above to propose a tentative curriculum macrogenre for such discussions.

4.10.1 The concept of macrogenre

Some texts may be readily identifiable as a single genre, for example a well-argued exposition.
However, other texts may instantiate more than one genre (Martin & Rose, 2008, p. 242),
representing a mixed text. In some cases a genre may be embedded into another genre,

functioning as a stage in the overall genre, just as a clause may be rankshifted to function as a nominal group in another clause. At other times genres are connected one to the other in logico-semantic relations (elaborating, extending, or enhancing), just as clauses are so connected into clause complexes. It is this latter kind of text that is referred to as a *macrogenre.* In such instances elemental genres are assembled in a purposeful manner, with some consistency across multiple instances. Macrogenres are represented by, for example, textbooks and research papers (Hood, 2010, pp. 37 – 43). Such genre complexing in classroom instruction is referred to as a 'curriculum macrogenre' (Christie, 1997). Martin and Rose (2008, p. 219) demonstrate that textbooks are 'macrogenres ...[that] ... link reports, explanations, procedures, procedural recounts and expositions in an intricate logical series' via logico-semantic relations, as noted in Chapter 3. Such macrogenres serve to apprentice students into 'a hierarchy of knowledge and specialised activities' (Martin & Rose, 2008, p. 225), giving them power to participate in the discipline at the highest level.

4.10.2 Curriculum macrogenres

In classroom contexts, a condition for curriculum macrogenres is that 'new understandings and new forms of consciousness are taught and learned' (Christie, 1997, p. 148). Learning is incremental and each phase is marked by a closure, which summarises learning and moves on. In a curriculum macrogenre, the elemental genres are both inter-related and independent, standing 'in relation to each other, much as clauses relate to each other in a clause complex' (p. 148). Christie (2002) proposed two prototypical models of curriculum macrogenres: linear, showing relations of elaboration and extension (Figure 4.3) and orbital, consisting of an initiation and exemplifications (Figure 4.4). Given the parallels between classroom instruction and online discussion noted above, curriculum macrogenres may provide a useful way of accounting for online discussions.

Prototypical model of a curriculum macrogenre
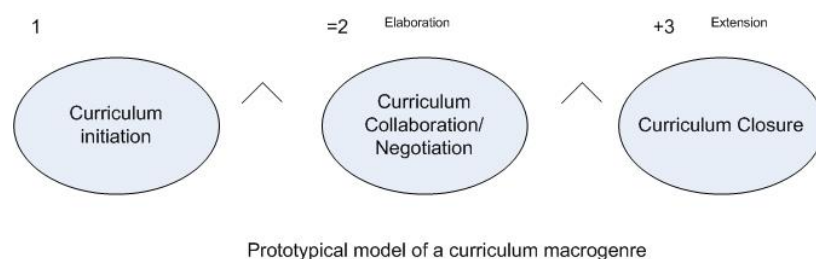
Figure 4.3 Linear curriculum macro-genre (redrawn from Christie, 2002)
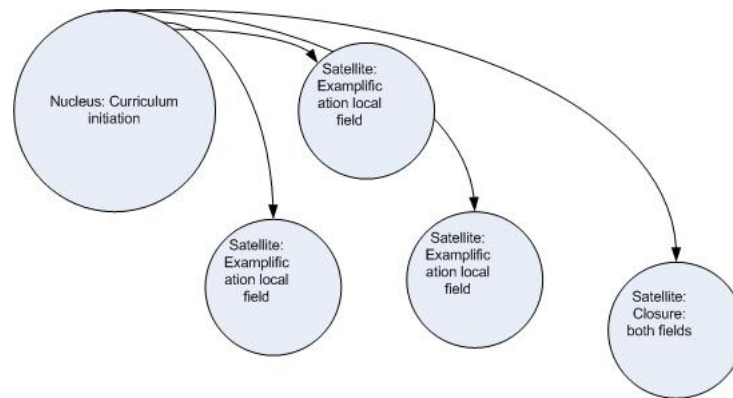
Figure 4.4 Orbital curriculum macrogenre (redrawn from Christie, 2002)

The project of mapping curriculum macrogenres in various contexts is ongoing, as noted earlier, with stages named differently depending on context. Christie's (2002) prototypical model provides for three stages: Curriculum initiation^Curriculum collaboration/negotiation^Curriculum closure, while her model for an orbital curriculum substitutes curriculum exemplification for the second stage; the closure stage brings together learning in all satellites. Martin and Rose (2007) map the Detailed Reading Cycle as Preprare^Focus^Identify^Highlight^Extend while Dreyfus et al (2011) propose the stages of Bridging^Text negotiation^Review for tertiary joint text construction.

4.10.3 Online discussions as a curriculum macrogenre

The complexity of asynchronous online discussions necessitates a layered approach to structural description and militates against the selection of a single unit of analysis (see Section 4.4 above). This complexity includes progressive creation of the text, optionality in reading and responding, the fact that it is a multilogue, the presence of numerous simultaneous threads and the ambiguity surrounding 'replies' versus 'responses'. In this section I propose a structural description for each of the layers in turn, based on the moves identified through exchange structure analysis (Table 4.4). It should be noted, however, that these descriptions have been developed for a specific type of asynchronous online discussion: scenario- and readings-based discussions in higher education with fairly substantial initial input from the moderator to introduce the activity and start the discussion.

The smallest unit I consider is the post. As Table 4.4 shows, both student and moderator posts contain obligatory and optional moves, corresponding to conversational 'chat' elements such

as greetings, pedagogical moves such as delayed K1 moves (largely made by moderators) and 'chunk' elements, particularly student K2 move complexes reflecting partial or complete written genres. Considerable consistency is apparent across instances of student as well as moderator posts. Where elemental genres or genre fragments are present, they are assembled purposefully, to ask and respond to discussion questions. As noted, the 'chat' elements are not amenable to genre analysis but are used consistently in posts. The two main criteria for macrogenres (consistency and purposefulness) are therefore met at the level of the post; its internal structure is linear.

Stage	Moves	Moderator	Student participants	
Orientation	GR K1 K1 A2 **dK1/ A2 [or** **K2/A2]** GR Signature	Welcome Self-introduction [first meeting only] Task description Instructions **Question** Leave-taking Signature		
Negotiation	GR K1/A2 **K2 / A1** K2/ A2 K2/A1 GR Signature REF		Greeting Link/ Acknowledgment [of other students]/ meta-comment/ evaluation **Response** Invitation [to other students] Question Leave-taking Signature Reference (citation or link)	Repeated
Evaluation **[Orientation]**	GR K1 dK1 /A2 A2 GR Signature	Greeting Evaluation and/or answer Question Instructions [task framing] Leave-taking Signature		

Table 4.1 Provisional curriculum macrogenre of moderator-led online discussions.

The slightly larger unit of a post and a reply to it (as shown on thread maps) was proposed as a traversal, critical path or logogenetic unit in Section 4.4 above. However, the fact that a technical 'reply' does not necessarily equate with a *response* to the content of the post renders this unit meaningless for exchange structure analysis. A post and a response to it form an exchange since ideational content is shared, but as the response trails show (Figure 4.2), responses are not necessarily adjacent to, or even in the same thread as, the original post.

The thread, consisting of an initial post, successive responses building sub-threads and possibly a closing post, seems to exhibit a curriculum macrogenre structure similar to the archetypical structure proposed by Christie (2002): an initiation phase I have termed **Orientation**, a **Negotiation** phase containing student responses, interaction with each other and occasionally with the moderator and a final phase containing evaluation by the moderator and sometimes answers or a summary of salient facts, named **Evaluation.** Only the Orientation and Negotiation stages appear to be obligatory.

The **Orientation** has a nuclear (obligatory) dK1 or K2 move with all others optional. There is considerable flexibility of the sequence of moves within the stage. In some cases, where the moderator evaluation is delayed until the start of the next thread, the new Orientation and Evaluation stages may be conflated. The only obligatory move in the **Negotiation** stage is the Response. Some student posts consist only of this K2 move complex, but most have at least one of the other move types, for example an acknowledgement, a meta-comment on the poster's own text, a reference or a sign off. The moderator-led **Evaluation** phase is optional, although its absence leads to an ill-formed pedagogical exchange.

Although the naming of the phases above may appear to suggest a linear structure, I propose that online discussions of this type in fact represent the potential for an *orbital* curriculum macrogenre structure (Figure 4.5). The nucleus, or curriculum initiation, is the moderator's post setting the scenario and/or asking questions. The **negotiation** stage is repeated many times by students providing answers or adding to the discussion in some way, i.e. numerous parallel student responses which can be viewed as satellites. In a well-formed discussion, the final satellite, the closure, comes from the moderator, ideally providing feedback and a summary of the points raised. Variations between discussions occur in the balance of student and moderator posts and the extent to which the initiation remains the focus of the discussion. In Case1, Group 3 for example, the satellites respond closely to the initiation and closures occur fairly regularly, after which a new initiation (further questions) occurs. In Case 3, all responses also refer to the initiation; re-initiations occur without closure and give rise to

sub-satellites within the overarching satellite. In Case 2, the curriculum initiation sets up the task and satellites ensue. However there is no closure and few re-initiations by the moderator, who by and large comments rather than posing further questions. At the level of the discussion as a whole, the orbital macrogenre can be regarded as being repeated on a larger scale – the satellites are the various threads which together respond in a general sense to the initiation.

It should be noted however that the proposed curriculum macro-genre is provisional, for two reasons. One feature which distinguishes linear from orbital curriculum structures is the logico-semantic relations between the initiation and the remaining components: elaboration for the linear and exemplification for the orbital. Given the wide range of embedded genres encountered in student answers, it may not be possible to state unequivocally that these responses exhibit only one type of logico-semantic relation. Second, the proposed macrogenre applies only to this specific type of moderator-initiated and - led discussion, as noted above. It may not apply to online discussions embodying different activity types (particularly more student-led, constructivist models), different disciplinary areas and students at different levels of schooling and technological awareness. Further research is needed to tease out the effects of such variables on discussion structure and to confirm or amend the proposed macrogenre.

4.11 Online discussion structure overview and pedagogical implications

The analysis above has contributed to an understanding, in terms of theory and its pedagogical application, of what I loosely termed the 'structure' of the case study online discussions. 'Structure' was interpreted both as quantifiable interaction patterns found in the discussions and as considerations of the register variables of mode and (to a lesser extent) tenor and the more abstract stratum of genre.

From a theoretical perspective, a core concept is that structures do not exist a priori but are negotiated. In terms of quantifiable interaction patterns, I have shown that the 'text' is gradually created by participants as they respond to the affordances and constraints of the technological mode, selectively reading and 'replying' and/or 'responding' to other posts. Each time participants log on, they are exposed to a different version, viewed interpersonally and ideationally, of the text-in-becoming; researchers will most likely have a synoptic view of the completed text. This complexity and fluidity is not commonly explicated by researchers, and

impacts on many aspects of analysing these texts, from selection of units of analysis to tracking the development of ideational meaning to theorising the genre of these discussions.

Theorising discussion structure linguistically leads to considerations of mode. In realising the mode, the discourse is responsive to technical aspects. Some mode features have been addressed in published research, for example the presence of features of both written and spoken language and the effect of public, permanent texts on willingness to engage in argumentation. In subsequent chapters I will tease out the impact of mode on the development of interpersonal and ideational meaning in more detail. Also from a theoretical viewpoint I have suggested that these discussions are structured in relation to tenor, as realised in the negotiation of roles by participants, which can be probed in terms of the system of NEGOTIATION. The roles taken on by participants or the roles participants are cast into (primary or secondary knower, primary or secondary actor) provide a window into relations of status and power, hence tenor, in the discussions (and their potential 'flattening' leading to a 'democratisation' of participation). It also leads to considerations of the moderator's semiotic self-positioning as a knower (on a continuum between K1 and K2) and whether the discussion is genuinely free and open. This is further theorised in Chapter 7.

Working towards a genre description, I have shown that these interactions bear some of the characteristics of casual conversation (greetings and leave-takings) and of pedagogical exchanges. On the other hand, lengthy 'monologic' K2 (and even K1) move complexes occur in which content knowledge is negotiated. Asynchronous online discourse thus consists of a spoken-like (conversational and pedagogic) matrix with written-like segments embedded in it. In this my findings confirm those of Piriyasilpa (2009) and those in the studies by Coffin and colleagues noted in Chapter 3. These insights lead to the characterisation of posts as representing a macrogenre while threads and whole discussions represent a curriculum macrogenre which may be described as orbital. Exchange structure analysis also allowed me to question the types of exchange represented, and to consider whether they are well-formed. Applying exchange structure analysis to online discussions did, however, identify parts of the theory in need of further development, for example the exact definition of a primary knower in pedagogical contexts and criteria for a linguistic service that apply to online discussions.

 Turning now to the practical application of these insights, both quantifiable interaction patterns and insights gained by examining mode and genre provide guidance for participation. An understanding of structure in terms of genre means that participation can be modelled and made explicit for student orientation and moderator guidance. Examples include:

- Bookending posts with greetings
- Acknowledging the contributions of others, preferably by engaging with content
- For moderators, asking questions in ways which make it clear which genres would be appropriate in answers
- For students, modelling possible genres for answers. This is based on the premise that the fractured nature of the genres represented in some K2 move complexes may hamper the structuring of academic meaning.

Insights gained from exchange structure analysis about role negotiation and semiotic self-positioning as a knower suggest (depending on teaching philosophy):

- that few dK1 questions should be asked as this limits debate and favours those who are quick to post
- that self-positioning towards the K2 end of the continuum leads to more open debate – however the apparent openness of questions must be congruent with their real openness
- that pedagogic questions require an evaluative move, preferably in close proximity to the responses they receive; without this the exchange is not complete.
- that students would be empowered by taking on a K2 role and asking questions of their own based on the study material

The interaction pattern analysis, while not linguistically or even empirically based, raises issues including

- the need to manage structure, including thread length and density, depending on students' characteristics, to help them navigate posts and ideational meaning
- the desirability of ensuring all student posts receive a reply

Successive chapters will explore inter-relationships between realisations of field, tenor and mode. In Chapter 5, I explore the impact of mode features such as the public and permanent nature of the discussion on aspects of interpersonal meaning making, such as expressions of emotion and giving instructions. This is seen in the context of the creation and maintenance of a community of learners, which I show has an effect in turn on the development of ideational meaning. In Chapter 6, with mode unchanged, I show that interpersonal meaning realising tenor supports the development of field-related meaning and a communal identity within a community of practice, while it is less productive in the service of individual identity formation.

In Chapter 7 I explore the role of the interpersonal (tenor) in constructing knowledge and making academic meaning, including relationships to sources brought into the discussion.

5 Negotiating online communities of learners

Although online learning communities have existed for over two decades, much is as yet unclear about what is involved in creating, sustaining and participating in them. Such communities are a significant component of the pedagogical rationale underpinning the promotion of online discussions, as described in Chapter 2. They are said to provide social and emotional support for learning and are theorised according to two main models: the Community of Inquiry (e.g. Garrison, 2006), specifically for online environments, and the Community of Practice (e.g. Wenger, 1998), which may be face-to-face or virtual. The main difference between these two is the basis of the community. A Community of Inquiry is said to be characterised by cohesion, connection, empathy, emotional warmth and trust between members and the establishment of 'social presence' to support learning (teaching and cognitive presence are also found). Thus the basis of such a community is predominantly interpersonal: warmth and support are directed to co-participants and the group as a whole, and the field is that of being a learner. In the Community of Practice model, community interaction and support serve professional and vocational learning, in other words the basis of the community is professional practice and the field is the content, in this case public health practice.

The distinction noted above, between communities supporting learning and communities supporting practice, underlies the exploration of the enactment of online community in the following chapters. Chapter 5 takes a predominantly interpersonal perspective, with a focus on the field of online learning and the provision of mutual social support. Chapter 6 views community from the perspective of professional practice in a disciplinary field (i.e. Communities of Practice), with the negotiation of ideational meaning taking on a greater role. In these two chapters I explore the linguistic basis for the existence and functioning of these community types in the case study discussions. I go beyond the imprecise notions found in the literature to ask whether and how community membership is realised linguistically, by whom and to what effect. I seek to answer questions such as: how do participants in these discussions respond to the opportunities and requirements of the mode in order to enact community membership? What choices do they make from the system of language to make meaning where texts are public, visible and permanent and where multiple 'others' are textually present? In addition, I seek linguistic evidence for the notion that online discussions are more 'democratic' than their face-to-face equivalents. All of this goes well beyond the consideration of the interactional opportunities afforded by the technical mode, discussed

(with its positive and negative outcomes) in Chapter 4. In sum, I seek to describe in linguistic terms what it means to belong to and contribute to online communities of inquiry and of practice.

5.1 Theorising supportive learning communities linguistically

Turning now to communities of learners, considerable difficulty exists when trying to discern exactly what characterises participation in such communities. The published literature is largely populated by terms whose meanings are imprecise and/or not agreed on by practitioners (Nicholls, 2009), as noted in Chapter 2. This issue is perhaps best illustrated by the term 'social presence' (e.g. Garrison et al, 2006), a core element of a community of learners. What does this mean, beyond the fact that a participant is 'visible' in the discussion and is interacting with others? What kind of communication, in linguistic terms, is subsumed under 'social'? How are its subcomponents – affective, cohesive and interactive responses – realised? How can we recognise when a participant is 'connected to another's responsiveness'? What characterises 'immediacy' or an 'open, relaxed and attentive' style? The literature provides limited guidance regarding linguistic realisations of these notions.

In order to avoid the indeterminacy of terminology and vagueness of concepts found in the literature, I seek to describe learning community participation in linguistic terms, based on Systemic Functional Linguistics (SFL), as noted earlier. This endeavour consists of two parts: first, mapping terms used in the literature wherever possible to specific systems within SFL and second, starting out from SFL theory, theorising which systems might be implicated in the linguistic realisations of community and analysing the case study data using these systems.

The literature does suggest some specific linguistic realisations of membership of a community of learners: salutations, naming (vocatives) and inclusive pronouns (e.g. Anderson et al, 2001; Rourke et al 2001; Shea et al, 2001), which can be mapped to the SFL system of INVOLVEMENT. I report on the analysis of my data in terms of INVOLVEMENT, in which published findings were replicated to some extent, in Section 5.2 below. Beyond this, participating in online learning communities is said to involve expressing *feelings, emotions, mood and warmth.* SFL theory suggests that these would be realised largely by AFFECT within the system of ATTITUDE, which, as noted in Chapter 3, deals with emotions. Community participation also involves *praising and complimenting*, realised by APPRECIATION (aesthetic responses) and JUDGEMENT (responses to personal qualities and behaviour), likewise within the system of ATTITUDE. Such realisations are addressed in Section 5.3. Analysis of the case study data suggests a further aspect of

community building and democratisation which has largely been ignored in the literature – the use of interpersonal grammatical metaphor to soften instructions, detailed in Section 5.4. Community participation is also said to involve *phatic communication* and *self-disclosure*, both aspects of FIELD, used interpersonally, and a 'conversational tone', an aspect of Mode; I will address these inter alia below. Finally it involves *showing agreement*, which I discuss below and in detail in Chapter 7, in connection with ideational meaning-making.

In this analysis I am exploring and interpreting the meaning potential in the discourse. I identify some common patterns of APPRAISAL across these discussions, but also considerable differentiation between case studies, between moderators and between participants, for example in the extent to which a learning community is present, who is primarily responsible for sustaining it and the linguistic means used to do so. These differences can be traced back to differential interpretations of the requirements of the mode and different choices made from the reservoir of language, influenced by factors such as personal philosophy, interest and prior experience of the technology and pedagogy. I note however that it is not possible to ascertain from language data whether apparent instances of community building and the creation of social presence were intentional or incidental. The related issue of how participants 'read' the interaction, and whether they actually feel they are part of a community (compliant reading), or alternatively do not pick up the cues or resist being part of the community is more amendable to linguistic analysis, and is addressed inter alia below.

In each section below, I generally present the analysis of moderator posts first, then student posts. I illustrate my claims with reference to a sample discussion chosen for the purpose, in this instance Case 1, Module 1, Group 3 (C1M1G3)(Infectious disease), and then provide comparisons with other case study discussions. I also comment on the logogenesis of ATTITUDE, where relevant. Finally, I quote from the survey data to support my arguments.

Analysing community building linguistically as outlined above serves several purposes. It helps support or refute claims made in the literature about online communities of learners, social presence and 'democratisation', although I do not aim to show whether these improve motivation or learning. It can provide detail about how such communities are established and sustained as well as the influence of contextual variables. Thus these findings can provide empirical support for guidelines for effective moderation.

5.2 Building a community of learners through INVOLVEMENT

The resources of INVOLVEMENT are used to negotiate solidarity and group affiliation, in-group membership and hence community belonging. In this section I consider three of these resources: greetings and signoffs, naming and pronoun use, although there are many others. A summary of linguistic choices and patterns follows; Appendix 10 contains the full analysis.

5.2.1 Greetings and sign-offs

It is clear that greetings, both at the beginning and the end of posts, as well as the inclusion of a signature, were considered optional by many students and even the occasional moderator, as noted in Chapter 4. In the sample discussion, the moderator included these moves in half of her posts (*Hello, Hi, Speak soon*) while students rarely used them. However, the incidence of these increased slightly in later discussions for the same group, corresponding to increased familiarity amongst group members. Other Case 1 discussions showed similar levels of greetings and signatures. In Case 2 (Obesity), students' greetings and signoffs were more frequent but were still present in fewer than half of their posts. In contrast, in Case 3 (Tobacco) the majority of student posts contain these elements; with closing greetings such as 'thanks' 'regards' and 'cheers', they closely resemble contributions to an email list. This in turn relates to the learner profile for Group 3: most of them are professionals who would be familiar with the protocols for group email communication in the workplace.

5.2.2 Naming

It is strongly suggested that community is enhanced through the use of vocation (naming) (e.g. Anderson et al, 2001; Baker, 2004; Shea et al, 2001) since the use of given names represents 'direct engagement' with an interlocutor (Poynton, 1990, p. 104). Naming of peers by students was least common in Case 1, more common in Case 2 and most common in Case 3. Moderator naming of students is generally less frequent than student naming of peers. In the sample discussion, the moderator names individual students on four occasions, preferring to acknowledge the group as a whole, either as *you* or by third person reference (*Group 3, people*), although by Module 6 she names individuals more often. The Case 2 moderator rarely names individuals and often refers to them in the third person (*everyone, other students, they*) while in Case 3, moderators occasionally name individuals as they engage with their ideas.

The patterns of use of the vocative suggest that, while students naming peers does help build community as long as it is positive, low levels of naming by some moderators may result from

community maintenance strategies. These include the desire to evaluate group rather than individual efforts, and the wish to avoid singling out individuals or potentially causing embarrassment with respect to responses. Thus it can be argued that moderators *not* naming individuals is more conducive to community formation in all three case studies than naming them. Thus, where moderation guidelines suggest that naming enhances community, this un-nuanced approach is actually misleading.

5.2.3 Pronoun use

There are generalised claims in the literature (e.g. Rourke et al, 2001) to the effect that inclusive pronouns (*we, us*) promote a sense of community. However, my analysis suggests that, as with naming, contextual factors (such as activity type in this case) need to be taken into account. The sample discussion showed low levels of inclusive pronoun use by the *moderator* (5%); second person pronouns (*you, your*) predominated (66%) and meaning is negotiated between *I* and *you*. *Students* used lower levels of pronouns overall, with *I* predominating (61%). This pattern is repeated across all cases: relatively low levels of inclusive pronouns, a preponderance of non-inclusive first person and second person pronouns. This could be interpreted as low levels of community building and low involvement of moderators with the group. However, first and second person pronouns will naturally result from activities which involve seeking and giving opinions or moderators introducing themselves and evaluating group effort. They may also reflect the 'conversational' aspect of these discussions. There is even one instance of a moderator's use of *we* which might be considered patronising, or at least odd ('*we can learn together*' C1M1G1 Post 1). On the other hand, the majority of instances of '*we*' (in Case 1 and to a lesser extent in the other cases) occur when students post 'in character', taking on the role of a hypothetical public health professional in the scenario.

> *Firstly, **we** should confirm whether it is a communicable disease.*

Similarly when moderators in Case 1 referred to 'you' it was often to the student in the hypothetical scenario role.

> *You* could survey labs serving the region (or the state) to find out whether...

I propose therefore that the use of first and second person pronouns, whether inclusive or not, reflects individuals interacting with each other and as such is conducive to the building of a community of learners or, to the extent it refers to students posting 'in character', it may serve to support a community of professional practice.

The analysis thus far confirms elements fostering a community of learners as suggested in the literature (e.g. Anderson et al, 2001): salutations, vocatives and selected personal pronouns, corresponding to the SFL system of INVOLVEMENT. Their incidence varies across cases, being most common in Case 3 (Tobacco). Nuanced recommendations regarding the function and uses of such linguistic resources can be incorporated into moderator guidelines and student orientation. For example, both moderators and students should be encouraged to use greetings and signoffs and first and second person pronouns. Students can be encouraged to name each other in responses while moderators might be advised to do so sparingly, to avoid appearing to favour some students over others or even embarrassing individual students. As far as researching online discourse is concerned, the analysis also shows that a nuanced, sensitive and value-free approach based on an understanding of contextual aspects such as activity type is required.

5.3 Building a community of learners through ATTITUDE

In this section I go beyond INVOLVEMENT to explore a dimension of community building that has not as yet been linguistically theorised in the literature, although it has been to some extent described in non-linguistic terms: that of emotions, warmth and compliments, realised by ATTITUDE within the APPRAISAL system (see Chapter 3). Since the focus in this chapter is on learning communities, this section covers only ATTITUDE directed towards co-participants in the discussion. This section is structured in line with the sub-systems of ATTITUDE: AFFECT (emotions), APPRECIATION (aesthetic responses) and JUDGEMENT (responses to personal qualities and behaviour).

The moderator's initial post in the sample discussion will help contextualise the analysis which follows:

> Hello group 3! Welcome to your first module, "Population threats 1: overview and introduction".
>
> My name is Emily Carpenter and I will be group 3's tutor for all of the modules in your ... course. I work as a lecturer here in the [institution] where my main job is coordinating the ... [program]. I am also a graduate of the [degree she is now teaching on], so I have a feel for what you are in for. In my life "before public health" I was a physiotherapist and worked in various hospitals and private practices in Australia and the UK.
>
> I have been reading your introductions – between you all, group 3 has a wide range of skills and experiences and I am looking forward to hearing what you all have to contribute to the discussion.

This self-introduction might appear to function to impart knowledge about the moderator, yet it does much more than that. Overall, it is an example of self-disclosure, said to be conducive to social (and in this case teaching) presence (e.g. Rourke et al, 2001). It overtly seeks to establish empathy (cf O'Sullivan et al, 2004) around shared experience of the degree program. It also serves to establish the moderator's credentials, beginning the process of the discursive negotiation of identity (see Chapters 2 and 6). The moderator begins with a greeting and a 'Welcome...' . It could be argued that *Welcome* is so formulaic that it has lost all affective meaning. I submit that it still carries some of this meaning as without it the tenor of the text would shift (compare C1M3G1 which lacks such formulae). However, it cannot be coded strictly as AFFECT. *Looking forward* is an instance of AFFECT: inclination: desire, positive, irrealis (future, hypothetical). I interpret this as falling just short of being an affective formula and regard it as AFFECT. The whole post concludes with two further affective formulae (not shown).

Interestingly, there is very little inscribed ATTITUDE in this opening. Instead, the moderator relies on less direct means for evaluation. She invokes ATTITUDE through the resources of GRADUATION. She uses GRADUATION: force to establish the geographical spread of her experience. Resources of invoked JUDGEMENT: capacity, upscaled, are used in the third paragraph to compliment and affirm the students: the *wide range of skills and experiences* and *what you all have to contribute to the discussion*. This can also be viewed as beginning students' socialisation into their role as ideal online discussants, a point taken up below. This example shows that a wide range of attitudinal resources are invoked by the moderator to enact positive interpersonal relationships, for example to show warmth and to compliment. In the following sections I describe realisations of subsystems of ATTITUDE across all case study discussions and for moderators and students in turn. In some cases it is necessary to discuss two subsystems together, for example with embedded ATTITUDE.

5.3.1 AFFECT

Analysing the discussion data for AFFECT is a response to suggestions in the literature (e.g. Rovai, 2002a; 2002b, Anderson et al, 2001) that learning communities are characterised by features such as emotion and interpersonal warmth, which in turn foster learning. The discussion of findings which follows will concentrate, for moderators, on self-introductions and evaluation of student contributions. For students, it will focus on the link/ acknowledgement of other students which precedes answers and (for Case 1 only) self-introductions. As with INVOLVEMENT, there is some variation between discussions and between individuals within discussions regarding the use of AFFECT.

Affective formulae, phonological surges and AFFECT: Irrealis

Affective formulae, as noted, play an important role in maintaining interpersonal warmth, although they do so in a 'low-key' fashion. These are words and phrases (for example *good luck, enjoy, all the best, best wishes*) which carry some emotion but which cannot be coded strictly as inscribed AFFECT. These usually occur in the final greeting, but can occur elsewhere. Further examples are *Congratulations!* forming a post's subject line in Case 3 and formulae such as *Thanks* in the evaluation of student answers. Students use such affective formulae very occasionally.

The moderator concludes the sample discussion with a post containing *Phew*! Such (infrequent) transcriptions of 'phonological surges' are of course underspecified with respect to meaning but as conversational elements they contribute to interpersonal warmth.

Some of the AFFECT in moderator self-introductions is *irrealis*, related to the future rather than the present. It is most commonly realised as *looking forward*, verging on the formulaic but still retaining affective force. Students used the same formulation e.g. *Look forward to reading everyone's posts.*

Moderator use of AFFECT: Inscribed and invoked

The key feature of *moderator* postings noted above is that they feature very little inscribed AFFECT. Where it is found, it is realised with a limited range of lexical choices. For example, *great* and *interested* are most common in Case 1. There were occasional instances of inclination: desire verging on the formulaic (*Hope/ hopefully)* and a rare case of negative affect (*I'm sorry*). In Case 2 evaluations of student effort there is some use of AFFECT: happiness and AFFECT: satisfaction: pleasure *(I am happy* and *I am most impressed* respectively, including up-scaling of the latter). In Case 3 evaluations of student contributions, the moderators were likewise sparing in their use of AFFECT. Apart from polite formulae, there was one instance of *I like* (appraising a student's analogy), two of AFFECT: satisfaction: interest (*interested, intrigued*) and one of AFFECT: satisfaction: pleasure (*impressed*). There were some instances of AFFECT related to public health content, for example the *concern* attributed to students in Case 1; these will be addressed in Chapter 6. There were a small number of instances of invoked AFFECT, for example in Case 2: *I can't resist logging in to see what has happened* (invoked AFFECT: inclination: desire implying excitement at the prospect of reading students' posts).

AFFECT in student self-introductions: Getting to know you

There is very little AFFECT overall in student postings in the case study discussions, with one notable exception: student self-introductions (*Getting to know you*) from Case 1 (Infectious disease). This introductory activity responds to Salmon's (2000) advice to provide for 'online socialisation' (Stage 2 of her 5-stage model) and also to guidelines within the Community of Inquiry model (and elsewhere) for establishing social presence by self-disclosure. The discussion was 'seeded' with two posts from the coordinator. Eighty percent of students responded; the discussion which follows refers only to student posts.

Student responses are characterised by dense evaluative language, summarised below and covered in detail in Appendix 1.7.1. All but one student post contained ATTITUDE or an expression of good wishes to peers or both; seven posts contained at least one emoticon (rarely seen in the discussions proper). Significantly, instances of ATTITUDE are inscribed rather than invoked. The evaluation found in these posts is overwhelmingly positive. By far the most common ATTITUDE type is AFFECT (76 instances), followed by APPRECIATION (14) with JUDGEMENT (10) trailing.

Roughly one third of student posts in this discussion included one or more instances of AFFECT: satisfaction: interest. These evaluated the unit of study and its content (13 instances) and the field of public health more broadly (6). There was a slight tendency to grade these meanings up. More numerically significant, however, was AFFECT: desire: irrealis triggered (not unexpectedly) by the prospect of meeting and learning with others, participating in discussions, learning new content and improving career prospects. In nearly 40% of posts this was realised by *look/ looking forward* (occasionally upscaled e.g. ***really*** *looking forward*) and in nearly 30% of posts by *I hope/ I'm hoping* – a narrow band of realisations quite similar to that employed by moderators. In a further 11 posts students expressed AFFECT: happiness about being in the group. Unlike interest, desire and happiness were not suggested by the question. The use of JUDGEMENT was also significant in these posts (see Section 5.3.3 for a discussion).

This analysis provides evidence of the ways students make choices from the system of language in response to the perceived requirements of the mode. The discussion functioned as a type of enforced socialisation and started the unit with a surge of interpersonal warmth and positive acknowledgement of others. This set the scene for community-building and potentially provided an affective base for learning. However, the subsequent content-related discussions in Case 1 reveal a far lower evaluative density, in fact lower than that of other

discussions (in Cases 2 and 3) which did not include a 'Getting to know you' activity. However, in these latter cases the majority of students had met in a prior workshop. It may be that the Case 1 self-introduction served to quarantine interaction of a highly social and affective nature away from the more 'serious' content-based discussions which followed. In other words, students have control of the linguistic resources to enact affective communities but choose to use them less frequently in content-related discussions where they may have seemed inappropriate, in view of the shift in field from each other as learners to disciplinary content. The implications of this for task design remain open, for example whether it is better to incorporate online socialisation into content discussions or keep it separate. Added to this is the question of whether online socialisation is appropriate at all in content-focussed discussions at postgraduate level.

Summarising patterns of AFFECT

ATTITUDE: AFFECT was not commonly deployed by moderators or students in these discussions, with the exception of Case 1's *Getting to know you*. Where AFFECT occurred, it tended to be realised by affective formulae (not strictly AFFECT), irrealis (future-oriented formulations, particularly *looking forward)* or phonological surges, underspecified with respect to meaning. Where inscribed AFFECT is found, it is realised by a limited set of lexical items, bordering on the formulaic (e.g. *great*) or low-impact and overworked (e.g. *interested).* In other words, AFFECT is downplayed: the community is being supported emotionally, but the emotion is implied rather than explicit. The robust expressions of AFFECT found in *Getting to know you* mean that Case 1 students do control the relevant linguistic resources, but choose not to use them in the assessable, content-focussed discussions. As far as AFFECT is concerned, there is only limited evidence across discussions in all three cases to support claims for supportive communities featuring 'warmth' and 'emotion'. However there are alternative means of providing affective support.

5.3.2 APPRECIATION

The literature suggests that acknowledging, praising and complimenting are also elements of online supportive communities (e.g. Rourke et al, 2001). The system of APPRECIATION, which evaluates phenomena and events in terms of value, complexity and personal reaction, is one resource likely to be deployed to realise praise and compliments. Both moderators and students used APPRECIATION to evaluate the content of the field of practice (see Chapter 6) and

the course itself; however in this section I focus on APPRECIATION targeting others present in the discussion.

APPRECIATION in moderator evaluations of student responses

Moderators make extensive and nuanced use of the resources of APPRECIATION not so much to praise and compliment students directly (which is realised by JUDGEMENT; see section 5.3.3 below) as to manage the delicate matter of evaluating responses. Keeping in mind that this involves a public and permanent assessment of the correctness or appropriateness of such responses, these are points in the discussion at which interpersonal relationships are placed at considerable risk. Moderators tread a fine line between ensuring that correct knowledge is constructed whilst not undermining the community and exposing individual students to potential embarrassment. Evaluation appears to be an optional stage in the genre, as some moderators do not evaluate responses, leading to badly-formed pedagogical exchanges (see Chapter 4). I address evaluation of students and their efforts in this section and defer the evaluation of ideational meaning i.e. *answers* to Chapter 7**.**

I start again with an illustration from the sample discussion in Case 1 (Infectious disease), in which students and their efforts are robustly evaluated.

> Hi again, **great** to hear from so many of you early in the piece...

Following a greeting, the moderator's *great* expresses inscribed APPRECIATION: reaction, another case bordering on the formulaic, with the meaning perhaps underspecified. An important point to note is that the group as a whole, rather than individuals, and their effort rather than their responses are evaluated at this stage. The APPRECIATION above implicates JUDGEMENT: tenacity.

APPRECIATION targeting student contributions ('complimenting') in this discussion tends to be inscribed, realised by a limited set of terms and graded up or down to fine-tune evaluation. For example:

> These are **all great** points which we can elaborate on later...

realising APPRECIATION: reaction: impact, up-scaled (all + great). This can be contrasted with the slightly less effusive *There have been **some good** responses* later in the text, where *some* is downscaled with respect to *all* and *good* is downscaled with respect to *great*, implying that more work needs to be done on the answers. Likewise *What a **great** job you have all done* realises inscribed APPRECIATION: reaction: impact, as well as invoked JUDGEMENT. Evaluation in

other Case 1 discussions includes the same limited number of lexical realisations of inscribed APPRECIATION, graded in a similar way and sometimes (e.g. C1M1G1) occurring as the brief first sentence in the post:

> *You have generated **some great** ideas.*

> *You have raised **good** points.*

A key feature of these evaluative moves is the use of metaphors, rendering meaning implicit and avoiding overt, inscribed APPRECIATION or JUDGEMENT: metaphors of generating, raising points and covering content, being on the right track and working like a well-oiled machine.

> *You are on the **right track.***

> *You have **covered** the principles of control - well done.*

Evaluation across the rest of Case 1 is similar, if sometimes less frequent: contributors/ contributions attract thanks, the dominant metaphor is coverage and APPRECIATION: reaction: quality toggles between *good* and *great*.

The Case 2 (Obesity) moderator uses similar resources to evaluate student responses but uses them more sparingly. APPRECIATION: reaction and valuation are applied to contributions *(very good and thoughtful presentations, thoughtful comment, good idea).* In Case 3 (Tobacco), moderator APPRECIATION was slightly more prevalent than AFFECT. The quality of the discussion as a whole was described in terms of reaction: quality and impact, often upscaled (*good/ great/ really great/ truly awesome)*. Interestingly, a number of individual contributions were evaluated in this case study, for example:

> *I **like** your **clever** soda vs milk analogy, gave me pause for thought. **The one problem I see** is that there are no ... (P21)*

> *I was **interested** in your comments ... **Do you envision** the government controlling .... (P46)*

In such responses, the moderator was careful to start with AFFECT or APPRECIATION before following up with a question or negative comment.

APPRECIATION in student posts

The most significant features of student APPRECIATION in the *sample discussion* from Case 1 are its low incidence compared to that of moderators and the fact that almost none of the positive APPRECIATION was directed towards the efforts of fellow students. The high incidence of positive APPRECIATION as opposed to other types of ATTITUDE and the fact that ATTITUDE in general is more commonly inscribed than invoked are also significant. Viewed logogenetically at the

level of the **post,** ATTITUDE (as well as statements of agreement) is most likely to appear at the beginning of the post, less likely at the end and most unlikely in the middle. The positive APPRECIATION and positive and negative JUDGEMENT were directed exclusively to the *field* of public health (see Chapter 6), for example:

> *For the former, the* **best** *strategy is* **effective** *infection control measures. For the latter, the only* **proven** *strategy is hospital and community antibiotic formulary restriction.* (P60).

> *... the notion being that antibiotic* **misuse** *may lead to development of resistance* (P43)

This contrasts with the moderator, who was at pains to validate students in the group. Students may have felt it inappropriate to comment their peers' contributions at this early stage of their interaction, although this did change with time and familiarity.

Instead of APPRECIATION, acknowledgment of peers' contribution consisted largely of 'I agree...' , often followed by a disclaimer (perhaps responding to the assessment requirement to 'interact'). In this discussion students did not seem to build social presence with positive AFFECT or APPRECIATION of each others' contributions and appeared resolutely focussed on the topic under discussion. However, expressing agreement is said to foster community, so in that respect students were compliant, if perfunctory.

However, the sample discussion occurred at the very beginning of the semester. This group (Case 1, Group 3) was tracked across three discussions covering the entire semester, as noted in Chapter 3.13. With the passing of time and increased familiarity, there was an increase in AFFECT and APPRECIATION targeting peers. Thus in M3: ...

> **Great** *ideas everyone. (P30)*

> *I think the group came up with a* **good** *list. (P33)*

> *I think Student p made a* **important** *point (P50)*

As in the sample discussion, instead of APPRECIATION, some posts linked to previous ideas in an additive fashion or expressed agreement to a greater or lesser extent:

> *Just to add onto Student nn's suggestions (P71)*

> *I* **fully agree** *with everyone's posting of these two questions ... (P61)*

In M6, there was a small increase in affective formulae:

> **Thank U** *for your comments. (P34)*

> **Thank you** *for your question. (P105)*

and slightly more APPRECIATION:

> ***Great*** *post. (P50)*

> *I think Student hh come up with a **good** list. (P55)*

> *I think it's a **great** idea. (P103)*

Additive reference to other students' posts or ideas continued and agreement was again progressively upscaled (see Chapter 7 for more detail):

> *And yes, I **totally** agree with you (P50)*

> *i **completely** agree (P68)*

> *I **fully** agree with U (P79)*

Thus markers of community were seen to increase as the group worked together over time.

Levels of student AFFECT, APPRECIATION and JUDGEMENT directed to peers are comparatively low across the remaining Case 1 discussion groups, despite moderators enthusiastically modelling these.

Student APPRECIATION in Cases 2 and 3

There was a small amount of student **AFFECT** as well as some affective formulae in **Case 2:**

> *Firstly, **thank you** both for your fascinating insight (P4)*

> ***Look forward*** *to reading everyone's posts. (P20: end)*

APPRECIATION of contributions or the course was more common than in Case 1, for example:

> *… your **fascinating** insight (P4)*

> *I also found it very **interesting** to read … (P5)*

> *This is a tough series of responses to follow and should be a **great** course! (P8)*

> *Reading through all the previous posts, this is certainly an **interesting** discussion. (P20: beginning)*

Expressions of ATTITUDE usually occur at the beginning of the post. Referring to other students' posts often occurs without any ATTITUDE at all:

> *Adila's post about raising the taxes on chocolate got me thinking if … (P38)*

> *In regards to Student P posting about … (P12)*

> *The comment about … reminded me … (P18)*

Simple agreement was common, usually at the beginning of a post:

> *I agree with the comment … (P6)*

sometimes at the end (in this case as endorsement):

> *… as Brad and a few other mentioned earlier. (P33)*

and rarely in the middle

> *I also agree that placing a tax on chocolate… (P55)*

In Case 3 participants readily evaluated each others' posts using APPRECIATION, AFFECT and JUDGEMENT, their posts sometimes resembling moderator posts (e.g. P2 in the examples below) but generally distinguishing themselves by a somewhat greater proportion of inscribed and upscaled APPRECIATION.

> ***Fascinating*** *indeed … (P89)*
>
> *I'm **looking forward** to participating in some **interesting** discussion (P2)*
>
> *I think you raise a **good** point there Anh (P58)*
>
> ***Thank you*** *to Andrea for **getting us off to a flying start** (P70)*
>
> ***invigorating** … **stimulating** … learned immensely from other postings … all arguments .. **carried a lot of weight and merit** … Theresa has provided an **excellent comprehensive** review … A **round of applause goes out to you all**… (P100)*

Agreement is also present, largely at the beginning of posts and perhaps less formulaic than in Case 1, engaging in more detail with ideas:

> *Just a couple of thoughts to continue on from Student E's posting earlier today (P81)*

It is telling that these postgraduate, professional, students rarely indulge in phatic communication, being task- and assessment-focussed (the same applies to the other cases).

Patterns of APPRECIATION

The analysis above shows that acknowledging, praising and complimenting, long held to be conducive to a sense of community (e.g. Rourke et al, 2001; Anderson et al, 2001), are realised to varying extents in all three case study discussions, most commonly by APPRECIATION.

Moderators tend to acknowledge and praise the contributions of the group as a whole and less commonly those of individuals, thereby supporting the sense of community amongst learners. APPRECIATION is overwhelmingly positive (also supporting community), albeit realised with a

limited range of lexis (*good, great*), often subtly graded. Moderator APPRECIATION is often invoked or metaphorical, leading to a type of 'low key' evaluation. APPRECIATION in student posts varied between cases, with low levels in Case 1, all directed to disciplinary content, and higher levels in Cases 2 and 3, sometimes appraising peers' contributions. Student APPRECIATION is more likely to be inscribed than that of moderators, and is here also often replaced by expressions of agreement, serving to strengthen the sense of community. Finally, there is evidence of increased APPRECIATION with growing familiarity of group members.

5.3.3 JUDGEMENT

In addition to APPRECIATION, resources of JUDGEMENT are commonly used in these discussions to praise and compliment students, largely by moderators. The subsystems of JUDGEMENT are **social esteem** (normality, capacity, tenacity) and **social sanction** (propriety and veracity) (see Chapter 3). A key distinction is that the resources of social esteem are used to evaluate students and their efforts while social sanction is largely used to evaluate the field, for example health-harming behaviours and the activities of multinationals (described in Chapter 6).

JUDGEMENT: moderators validating students' capacities

The crucial features of moderator JUDGEMENT when used to validate students are that it is invoked rather than inscribed and overwhelmingly positive. The use of invoked JUDGEMENT in the final paragraph of the C1M1G1 moderator's self-introduction has been mentioned above. Instead of saying that students are clever (inscribed JUDGEMENT: capacity), which might appear patronising in a higher education context, she refers to their *wide range of skills and experiences.* The reference to their tenacity is irrealis, to be realised in the future, when they start contributing. In similar vein, the Case 2 moderator uses invoked JUDGEMENT: normality to obliquely compliment the group:

> *I was lucky eough (sic) to meet a lot of you last night*

In a Case 3 example:

> *I must say I am HIGHLY impressed with the quality of the discussion that is occuring in the group. Indeed envious that I can't join in.*

AFFECT: inclination: irrealis (*envious)* also functions as invoked positive JUDGEMENT of the discussion.

Moderator evaluation of student contributions responses has been mentioned above; there it was realised by inscribed APPRECIATION, with limited lexical choices, and metaphorically. It is also realised by JUDGEMENT, largely positive. Thus in the sample discussion:

> *You have really started to work well as a group, discussing ideas and building on each others suggestions,* (inscribed JUDGEMENT: tenacity: positive, up-scaled (really), also referencing the characteristics of the ideal online discussant).

> *... well done.* (JUDGEMENT: capacity, positive, invoked, perhaps bordering on formulaic)

> *You have covered the next question brilliantly ...* (JUDGEMENT: capacity: positive, up-scaled; invoked, metaphoric use of 'covered')

> *Good effort on your first module group 3* ... (JUDGEMENT: tenacity: positive, up-scaled but not to the extent of 'great'; invoked)

Such realisations of positive JUDGEMENT are common in Case 1, particularly Group 3, serving to recognise and compliment the students. In Case 2 evaluations, invoked positive JUDGEMENT: tenacity is common, sometimes up-scaled (*everyone has really started off well)* with one instance of invoked negative JUDGEMENT: tenacity *(I have not heard from a couple of people yet),* directed at absent students*.* There is little evaluation of responses in Case 3, except as noted in Section 5.3.2 above.

Negative JUDGEMENT in moderator evaluations

If positive JUDGEMENT supports good relations within the community of learners, negative moderator JUDGEMENT of student contributions has the potential to disrupt the group's sense of community. There are very few instances of this; where they occur they are invoked, softening their impact. The moderator of Module 3, Group 2 was rather less enthusiastic than other moderators in his evaluation. In spite of his large posting volume, there are limited instances of positive APPRECIATION and JUDGEMENT, never up-scaled beyond *good* and usually ascribed to only *some* of the postings. However there are several instances of JUDGEMENT and APPRECIATION that are ambiguous at best and may even be interpreted as negative in context. These are:

> *Remember that it's Friday afternoon and your beer is getting warmer by the minute!*

> *Wow - all of this on Friday afternoon! What I really want to know is ...*

> *Are there dangers of getting ahead of yourself?*

What could be some of the problems in going public with this information at this early stage?

These statements imply first that the students haven't come up with meaningful responses, then that they have made too many and not particularly helpful suggestions which might be counter-productive in a real life situation. There is an extended negative APPRECIATION of student suggestions for chemical methods of vector control in P58:

> *Some of you have mentioned chemical methods of controlling vectors in your answers. This is a big step, likely to be logistically difficult, expensive and would only ever be done if there is a clear public health benefit. ... This is certainly used in some situations ... but is unlikely to be implemented in this situation unless the benefits clearly outweighed the risks and costs of such an intervention.*

This is grounded in a wealth of real-life public health experience. However, both other Module 3 moderators dealt with chemical control in a more neutral manner with positive VALUATION, describing conditions under which it *is best utilised*. As noted, all instances of negative JUDGEMENT in this discussion are invoked; there is an attempt at humour in the first quoted comment (often problematical in an online environment).

Student responses to these negative evaluations can be inferred from response patterns (there are very few posts available for analysis). Within Case 1, this discussion has the lowest percentage of student posts (66%) and by far the lowest average number of posts per participant (1.95, below the required minimum); figures for the Groups 1 and 3 in the same module are 88% and 2.36 and 92% and 3.3 respectively, while the averages for all Case 1 discussions analysed are 75% student postings and 2.96 posts per student. In other words there is in this discussion an apparent association between less than enthusiastic and occasionally negative feedback (and instructions) and less than enthusiastic participation.

JUDGEMENT in student posts: Getting to know you

Students generally don't make extensive use of JUDGEMENT to praise and compliment peers. It is mainly used to criticise the public's health-related behaviour. Where it targets peers or the group it is almost always invoked through inscribed APPRECIATION, for example

> *It's an **interesting** point you raise...*

> *The group came up with a **good** list...*

Case 1's *Getting to know you* again goes against the trend. There, students make frequent use of invoked JUDGEMENT, but in other respects running counter to the ways moderators use it. Although it targets others' qualifications, experience and varied backgrounds (JUDGEMENT:

capacity) in some self-introductions, it is more commonly used by students to present their *own* abilities, skills and orientation, using terms such as *love the challenge, keen* (coded as JUDGEMENT: capacity) or, more commonly, the improvements in their knowledge and understanding which they hoped the course would bring about, for example *deepen understanding*, coded as JUDGEMENT: capacity: irrealis, upscaled.

In summary, moderators (and to a far lesser extent students) use JUDGEMENT in the service of building communities of learners. Moderator JUDGEMENT tends to be positive but low-key: invoked and occasionally metaphorical. This is similar to the findings for APPRECIATION. It was most common in Cases 1 and 2, targeting students themselves and their contributions, generally as a group. In the only discussion where moderator judgement is negative (in Case 1), student participation is lowest of all groups and the community of learners less robustly realised.

Students use JUDGEMENT less often than moderators, and tend to use it mostly for the field of professional practice rather than their peers (see Chapter 6), except for the self-introductions in Case 1. In the latter discussion, students show command of the resources of JUDGEMENT but choose not to use these resources to evaluate peers' efforts in the content-focussed discussions. This paucity of praise and compliments reduces the sense of community. However, this is countered to some extent by acknowledgement of, and agreement with, peers' contributions.

However, the moderator evaluation of student contributions using JUDGEMENT outlined above has potential negative consequences. The fact that judgement is overwhelmingly positive, targets groups rather than individuals and is less direct (invoked) means that ambiguity can arise. Participants may be unsure whether their own, or any other, answers are correct. This is not problematic if the content of answers is robustly evaluated, but as I show in Chapter 7, this does not always occur.

5.3.4 Consolidating patterns in expression of ATTITUDE

The findings described above reveal that moderators, and to a lesser extent students, make use of AFFECT, APPRECIATION and JUDGEMENT in ways which correspond to the strategies for building an online learning community suggested in the literature. There is a high level of variation between cases, and between groups and individual participants within these. Theorising these strategies linguistically has allowed for greater clarity regarding their nature

and function, their extent and their positive impact as well as their potential negative consequences. In this section I consolidate the discussion above with some key observations.

Overall, the amount of attitudinal language within the case study discussions is lower than that suggested in the literature. Amongst students, it is lowest in Case 1, midrange in Case 2 and highest in Case 3, while the proportions for moderator ATTITUDE are the reverse: highest in Case 1, although variable between groups, and at low levels in Cases 2 and 3. Case 1's *Getting to know you* showed that students have command of the resources of ATTITUDE, but choose not to use them when the focus of the discussion is content- related. Interestingly, in the group (Case 1, Group 3) which spent almost a semester together, there was evidence of increasing levels of ATTITUDE (as well as INVOLVEMENT) on the part of both students and the moderator as they became more familiar with each other.

Moderators' linguistic strategies correspond in general terms to those which are said to reduce transactional distance, increase social presence and enhance learning communities. They include AFFECT, consisting of formulae, phonological surges, irrealis realisations and a small number of inscriptions – establishing a somewhat warm environment for the community of learners without this becoming too overt or intrusive in content-focussed discussions. APPRECIATION is overwhelmingly positive and largely targets the contributions of the group rather than individuals. Where such APPRECIATION is inscribed, we find a limited range of realisations and subtle grading (*all great/ some good*); it is more commonly invoked or metaphorical. Moderator JUDGEMENT is likewise largely positive, group oriented and mostly invoked, often through inscribed APPRECIATION. Realisations of both APPRECIATION and JUDGEMENT serve to support the community of learners, acknowledging and complimenting them as a group rather than as individuals and generally maintaining a positive tone. This is confirmed by the impact on participation and community belonging of repeated instances of negative APPRECIATION and JUDGEMENT noted in one Case 1 discussion.

One aspect of moderator use of ATTITUDE is worth exploring further: across all cases it tends to be what I have termed 'low-key' and indirect rather than overt and direct. Examples are provided above: affective formulae, phonological surges and irrealis AFFECT – not actual but future oriented; limited and general lexical realisations, with meaning underspecified; APPRECIATION realised metaphorically and invoked JUDGEMENT. Less meaning is committed in these realisations than would be the case for, say, inscribed ATTITUDE. In terms of building a learning community, we find ATTITUDE realised in a muted and tentative way instead of overtly. This suggests that, where attitudinal meaning revolves around others in the group, community

maintenance is better served at least at first with such low key realisations with meaning less committed, underspecified and not categorical. We note also that there is an increase in commitment (e.g. inscribed JUDGEMENT) and INVOLVEMENT as community members become more familiar with each other, whether this occurs over time in the same group with the same moderator or as a result of having attended a prior workshop together. The inverse relationship between moderator and student APPRAISAL frequency suggests that a certain level of community maintenance is achieved, regardless of who is responsible.

Students likewise use the resources of ATTITUDE in ways predicated to support communities of learners. In general there are low levels of student AFFECT in all cases and where it exists it is 'low key'. Positive APPRECIATION, mostly inscribed, occasionally targets the contributions of others or the course but generally targets the disciplinary field. JUDGEMENT is positive, commonly invoked through inscribed APPRECIATION, particularly on the few occasions it targets peers' contributions. It also generally targets the field of public health practice. It may be that interpersonal relationships and community are less important for students in this context (postgraduate, professionally-oriented, assessable contributions) than in the contexts reported on in the literature. The outlier in terms of student ATTITUDE is *Getting to know you* in Case 1, where levels are considerably higher and a strong temporary community of learners is established. Although students did not acknowledge or praise their peers' contributions using ATTITUDE, they did meet the requirement for interaction (and for building a learning community) by agreeing with contributions or peers, or adding to them.

As noted, there is considerable variation evident between cohorts, between moderators and between students; these variations result from the interplay of a range of factors. Individual student factors include field knowledge, professional background and its communication style, educational background, professional standing and whether participants are native speakers of English or not. For example, most Case 3 participants were working in professional contexts and interpreted the genre of online discussions as an email discussion list, demonstrated for example by the frequency of their use of greetings, naming and sign offs. In contrast, Case 1 contains the largest percentage of students not educated in Australia, perhaps reflected in lower levels of facility with academic genres in student answers. Moderator variability can be traced to pedagogical orientation and teaching style and preferences, which interacts with cohort characteristics. This in turn intersects with differences in task design, for example between readings-based and scenario-based activities. These differences lead both parties to make different choices from the language's meaning potential, from the system or reservoir,

leading to greater or lesser use of community-building resources and different experiences of the interaction. Moderator and student language choices are at times similar – for example low-key affect and positive, invoked judgement – lending weight to the 'democratisation' argument.

However, this community-building has potential negative effects. While positive group evaluation as described above maintains social and teacher presence and a sense of community, undifferentiated positive evaluation of group effort does not give individuals certainty about the correctness or otherwise of their own and others' answers. The subtle graduation of appreciation – *some good, all great* – may also not provide sufficient clarity. In other words, there is a potential for the pedagogy in these discussions to become implicit (Bernstein, 2000) and not accessible to all participants. Thus the need to sustain positive interpersonal relationships hampers aspects of ideational meaning-making and the thorny problem remains of providing feedback and responding to ideational meaning which is wrong. This latter point will be pursued in Chapter 7 where I address evaluation of the content of answers.

The pedagogical implications of these findings are, first and foremost, that discussion groups, topics and activities vary considerably and moderation guidelines need to take these variations in context into account. For moderators, self-introductions, self-disclosure and overt empathy, greetings and affective formulae as low-key AFFECT can be easily incorporated into guidelines for building community. Guidelines for moderation might warn against negative JUDGEMENT and the pitfalls of humour. Guidelines for praising and complimenting are more problematical: invoked rather than inscribed JUDGEMENT to affirm students and inscribed APPRECIATION of answers are used in the case study discussions, but there are no data concerning how these were 'read' by students, and whether they were found to be patronising.

As far as activity design is concerned, the increase in community-building resources with growing familiarity might be a good argument for having stable moderation over a period of time, although this would require further research. Further, the failure of some groups (particularly in Case 1) to emulate moderator ATTITUDE might indicate that modelling by itself is not enough where the cohort has little experience of online discussions or similar texts (e.g. email lists) to use as models. Explicit teaching of the genre may be required. Finally, it is important not to be swayed by normative assessments of what should happen (see my discussion of coding schemes in Chapter 2). Individual variations are to be expected. Case 1 has lower levels of student APPRECIATION targeting peers than the others. I have noted that students

do have command of emotive language, but choose not to use it in the discussions proper. Other factors influencing its relative paucity may be that the cohort is dominated by clinicians, with a unique professional or disciplinary communication style (see Lander and Reid 2008). The higher percentage (compared to other cases) of students from non-English speaking backgrounds in Case 1 also needs to be taken into account.

5.4 Managing status in online communities of learners

One discussion stage in which the concept of a community of learners could be at risk is when moderators assert their status to outline learning tasks and issue instructions. It is particularly critical where a public, permanent, written record exists, as in online discussions. There has been little linguistic research reported in the literature of ways in which the dilemma of issuing clear instructions whilst maintaining community is handled in online contexts.

It stands to reason that, in the absence of face to face contact, students in online courses need fairly explicit, local instructions as to what to do. This need goes beyond any general instructions provided in course guides, whether print or online. Such instructions are needed to prevent delays in getting started and misunderstandings as to what the task entails. This applies regardless of the type of educational institution, age of students and mode of learning: participation in learning tasks needs to be organised and negotiated.

In the present context, task organisation and negotiation are rendered particularly complex by a range of factors. These relate to the characteristics of participants, the online mode and the underlying pedagogy. Characteristics of participants include their age (21 and over), educational level (postgraduate) and professional standing. In many cases there are reduced status and authority differences between them and their teachers (although the distinction between the assessor and the person being assessed persists). These considerations suggest that issuing instructions will be complex and require some subtlety. Other register considerations noted earlier but impacting here include a written but dialogic/ multilogic text, delayed responses and a text constituting rather than accompanying action as well as the putative 'lean-ness' of this type of communication. The underlying pedagogical orientation (an aspect of field) potentially influences the way instructions are given, reflecting the considerable ambivalence surrounding the role of the moderator in constructivist, student-centred environments. Finally, disciplinary differences may impact the type of questions which can be asked, for example how open the question can be to divergent and unanticipated answers. In order to understand and indeed improve moderation in this environment, it is

critical to attend to issues of control over tasks (and knowledge) in the context of community building and maintenance.

5.4.1 Task description in the sample discussion

When describing tasks, moderators use, to varying degrees, interpersonal grammatical metaphor to realise instructions, GRADUATION: force to carefully calibrate quantities and times of contributions, enacting precision in task specification, and softened GRADUATION: focus to blur categorical boundaries. I exemplify this first in the sample discussion (Case 1 Module 1 Group 3) and then provide comparisons with the remaining discussions in Cases 1, 2 and 3. I also examine the role of students in suggesting tasks for others.

Interpersonal grammatical metaphor

Interpersonal grammatical metaphor is used extensively in the sample discussion. It first becomes apparent in the move types used to realise task descriptions. It might be expected that A2 moves (requests for service, linguistic or otherwise) would be used for instructions, for example:

> *Answer the questions as they are posted on the discussion board.*

> *Please think broadly, but keep your answers brief.*

In these moves, instructions are realised **congruently,** by a command (imperative mood), although it is softened a little ('please') in the second example. However, in the first post of the focus discussion, we note the following K1 move in which the moderator is describing the planned activities:

> *I will be posting the first question tonight … However I will be logging in daily to see how your discussion is progressing and I will be posting further questions …*

The next clause is rather more ambiguous:

> *Just a reminder that posts should be limited to 200 words …*

It is coded as a K1 move, providing information rather than requesting action. The clause is in the declarative mood (a statement), modalised (*should*, which is less categorical than positive or negative polarity, *do* or *don't*) and in the agentless passive, so the person (the student) responsible for posting is not visible. It is softened by the phrase 'Just a reminder'. However, it seems to function as a command, namely to *post 200 or fewer words to the discussion*. This type of realisation is termed 'incongruent' and functions as an interpersonal grammatical metaphor, realising interpersonal meaning metaphorically. Further, the act of posting in the

clause above has become a noun – *posts* – another example of incongruence, this time a grammatical metaphor. Both types of metaphor increase with progression through the levels of schooling and are a feature of adult (particularly written) language (Christie, 2000, p. 20). Interpersonal metaphor is 'commonly found in teacher talk, often to give an oblique expression' of the teacher's authority (p. 20). For both reasons, it is perhaps not surprising to see interpersonal grammatical metaphor in moderator postings, although its frequency and impact on the discussion warrant further investigation.

Recognising *Just a reminder that posts should be limited to 200 words ...* as a metaphorical realisation of task instructions has repercussions for the analysis and interpretation of all of my data. Even the clause complex noted above (*I will be logging in daily to see how your discussion is progressing)* could be interpreted as an expectation that the discussion will advance considerably on a daily basis and from here it is a small step to viewing it as metaphorical instruction for participants collectively to post daily. By looking at the way moderators in all case studies explain to students what they need to do we will arrive at a better understanding of the extent and impact of interpersonal grammatical metaphor in instructions in this context. It might even be argued that these formulations are so common in pedagogic contexts as to be quite unremarkable. However, I would argue that the frequency of such formulations is quite high (albeit variable) in this mode, possibly to compensate for the 'leanness' of the medium and in the light of the 'permanence' of interactions.

Later we read:

> *... you should all post approximately twice per module (which will give everyone a chance to contribute). The discussions are assessed and contribute towards your final mark.*

This is likewise an incongruent realisation, with a modalised statement (*you should... post*) rather than *Post..* The statement concerning assessment is cast in the passive rather than active voice, eliding the moderator's role as evaluator of knowledge, again serving to maintain the sense of a community of learners.

The C1G3 moderator makes extensive use of interpersonal grammatical metaphor in early modules, but interestingly, by Module 6 congruent and incongruent realisations are more balanced. Other Case 1 moderators handled task framing in much the same way. Realisations were congruent:

> *Please think broadly, but keep you answers brief..*

incongruent:

Here a two questions for you: /Now a question about surveillance./ Now some more questions:

incongruent but inclusive:

hopefully over the next few days we can learn together using some examples.

incongruent with AFFECT:

It would be great if one student... could summarise ..

or (rarely) by means of headings: *Next question*.

The significance of the frequent use of interpersonal grammatical metaphor by moderators centres on concepts of reciprocity (Poynton, 1985; also Chapter 3.6). They use this means to avoid direct commands (realised by the imperative) since they are in institutional positions to give 'commands' and students are not, a non-reciprocal situation. If they use a statement or question instead to realise instructions, reciprocity is achieved since students are also in a position to use these linguistic resources. Status differences are elided, at least in this respect, making the discussion more 'democratic', and thereby supporting the learning community. The gradual increase in congruent realisations in Group 3 in line with greater familiarity between participants and the moderator may mean that greater equality/ reciprocity had by then been achieved, which would not be compromised by the slight increase in congruently realised commands.

GRADUATION *in task instructions and positioning the ideal online learner*

The C1G3 moderator seeks to enact precision in task specifications, as noted above. Detailed management of quantities, space and time represents a common pattern in classroom discourse (Christie, 2000), although aspects of mode (public, assessed, limited opportunities for reply) make this more complex in online environments, as noted above.

In this example:

... you should all post approximately twice per module (which will give everyone a chance to contribute). The discussions are assessed and contribute towards your final mark.

We find GRADUATION: *all/everyone* (upscaled FORCE) and *twice (*FORCE: frequency*)*. However, *twice* is modified with *approximately* (downscaled FOCUS to soften categorical meaning); this leads to some ambiguity: how often is *approximately* twice? This pattern is replicated

elsewhere by the same moderator, in this case featuring a metaphor and invoked negative JUDGEMENT:

> Finally, if you have already made a few postings, **try and hold back** on these next questions so others can contribute, although **once the ball is rolling feel free to add to it**.

> Ok, onto your next question, time for some of the **lurkers** to have a go...

In other words, participation is finely calibrated. Students should give space to others and contribute again only after everyone has had a chance to, while on the other hand it is not acceptable to read and not post. Other Case 1 moderators write in the same vein:

> Only answer one question each, but make sure that you chose to answer one that most other people have not yet answered.

> Please remember to keep your postings short and original. You only need to post twice per module so everyone has an opportunity to contribute.

Such formulations constitute what I have termed 'positioning the ideal online learner': rationing a scarce resource (opportunity to contribute) in the face of competitive behaviour to maximise grades and rendering the reading load manageable for all parties. It is particularly prevalent in Case 1 and not found at all in Case 3, in which the moderator does not provide any criteria for participation.

5.4.2 Task instructions in Cases 2 and 3

Task specification was enacted differently in the remaining cases. In Case 2, it was largely incongruent. The moderator uses interpersonal metaphor frequently in her instruction moves. Introducing the topic of obesity, she foregrounds the question incongruently but with strong teacher presence (Christie, 2000):

> I would like for you to think about this

then proceeds with a series of statements with one case of passive voice and just one congruent command:

> The contributions don't always need to be just ... tell us what you think ... informal comments and replies to other students are also welcome, as it makes things more interesting along the way ...I will check in every day but don't always reply to everyone ...however all your contributions will be read ...

Task instructions are here largely metaphorical. In the next set of instructions, guidance is likewise incongruent:

> *There is no need to cite specific articles unitl (sic) the next discussion.*

then countered with what may be an attempt to mitigate the previous negative statement with positive JUDGEMENT: tenacity with embedded AFFECT: satisfaction, upscaled, to the point where students would be forgiven for not knowing if they should cite articles or not:

> *However, having said that, I am most impressed with the way that some of you have done so.*

A later question is asked incongruently:

> *I am just wondering if anoyne (sic) has found any particular literature about the risk periods for men?*

The task description and instructions also feature AFFECT and APPRECIATION. *I would like ... and It would be great ...* are coded as AFFECT: happiness, irrealis, although underspecified with respect to meaning and bordering on the formulaic; *makes things more interesting*, as APPRECIATION: reaction: impact, apparently ascribed to the students. Thus AFFECT, positive JUDGEMENT and interpersonal metaphor work to maintain social presence, only slightly compromised by the formulation *I would like,* which embodies a high level of control .

In Case 3 task instructions were limited to two posts at the beginning of the discussion. In setting up the task, the instructions toggle appropriately between descriptive statements, imperatives, headings and questions, with congruent and incongruent realisations in equal measure as seen in this edited version:

> *During this week we will consider the issue ...First, read this speech... Then read the press release ... Now....this is how we will start:*
>
> *Scenario: Imagine you work ... What is meant ...? What should be ...?*
>
> *Consider your strategy .... By the end of the week we should have explored ...and settled on a few strategies ....*
>
> *Suggested reading [heading] ... Search ... There are many recent and state-of-the-art papers ... Perhaps the best summary is: ...*
>
> *Over to you....*

Task instructions are reprised in Post 3, inviting students to articulate some of the complexity of the issue under discussion and develop a response strategy. There is no further task framing, no reminders concerning appropriate discussant behaviour and no limits set to the number or length of posts. There is also little AFFECT, and framing here seems directed more towards managing ideational content than interpersonal relationships.

Thus, although task instructions are needed for students to participate, they have the potential, if realised congruently as imperatives, to disrupt the feeling of community in the group as a result of diminished reciprocity. This can be addressed by an appropriate balance of congruent and incongruent realisations, as in Case 3 and the latter stages of C1G3. However, where instructions are predominantly realised incongruently, as in Case 2 and much of Case 1, there is a risk that, in the interests of maintaining the community of learners, clarity of instructions will suffer. Indirect realisations are more susceptible to reading positions, hence ambiguity can arise more easily.

5.4.3 Negative JUDGEMENT in instructions

In Case 1, M3G2 is the outlier. I have already mentioned it in connection with negative JUDGEMENT in evaluation of student responses. Invoked negative JUDGEMENT also occurs in instructions, and questions are posed as headings. Extensive instructions are front-loaded in Post 1, starting off incongruently:

> *Please remember that there are strict guidelines for posting including the number of posts, their length and their content –*

then moving through softened congruence (*Please read each other's posts carefully*) to congruence, negatively cast (*don't just cut and paste stuff*) and then to a strong teacher-centred statement: *I want you to...* There are only a few instructions for the remainder of the discussion (e.g. *Think carefully* ... and ...*perhaps you'd like to summarise...).* The task instructions contain two instances of invoked negative JUDGEMENT: tenacity: irrealis in relation to activities which the students have not yet undertaken, functioning as a warning.:

> *...so you don't end up just going over the same old ground again...*

> *... don't just cut and paste stuff from other sources as your post ...*

Given this group has no 'history' with this moderator, the higher levels of congruence as well as negative instructions and judgement and teacher-centred 'I want you to ...' may have accentuated status differentials and reduced (positive) social presence and community. At the same time these enhance teacher presence and lead to a clearer sense of what to do (or not to do). As I noted earlier, this evaluative pattern (invoked negative JUDGEMENT) is associated with lower rates of student posting.

5.4.4 Students suggesting tasks to peers

A small number of student posts in Case 1 contain task instructions which resemble those posted by moderators, lending weight to the 'democratisation' argument. In the focus discussion, once underway, students frame activities, for example when Lee suggests (inclusively) topics for discussion:

> *We should probably discuss the following:/*
>
> *-clinical manifestation*
>
> *-likely vector responsible*
>
> *-approach to investigation .....*

Lee appears to take on to some extent the role of a moderator, and positions himself to describe possible tasks and request a service (discuss) from others.

Although students in Case 2 were happy to evaluate each others' posts, there were few instances of explicit task instructions to peers. The most explicit was in Post 4:

> *I would like you guys to have a look at this article which also relates a lot to the matter and tell me what you think about it*

Explicit questions are occasionally asked, but by and large, Case 2 students are *apparently* happy to let the arguments unfold to carry the task - until a point in time when they suddenly decide to take action to regain control of a task which they felt was heading in the wrong direction (see 5.4.5 below).

Case 3 similarly contains limited examples of students *explicitly* suggesting tasks for peers to complete. Where this occurs, it takes the form of a K2 question inviting general or specific responses and may simply (or also) be a response to the requirement to 'interact':

> *What do others think?*
>
> *I'd be interested if others think that this might be a way ...*
>
> *Is anyone aware whether NRT usage has dropped in countries where snus use has increased?*

Task suggestions are more likely to be implicit in Case 3, implied by the arguments put forward which others can agree with or challenge, or by rhetorical questions which open space for other voices (this is explored in Chapter 7).

Taken together, task suggestions by students are limited in number, but where they occur they lend weight to the argument that online discussions display some levelling of status between moderators and students , in other words democratisation.

5.4.5 Losing and regaining control of tasks

Case 2 contains an example of students attempting to take control of a discussion which they felt was becoming dysfunctional. The moderator had abandoned the more structured approach outlined in the study guide and left the students to discuss the prescribed topic with little input from her. This is entirely in keeping with the 'guide on the side' view of online discussions. Added to this lack of structure is what I have described above as incongruent and sometimes confusing instructions, for example regarding the citation of sources. One student took it upon herself on two occasions to try to gain control of task framing, to bring the workload under control and follow the plan in the study guide. However, she was careful to employ similar high levels of interpersonal metaphor to the moderator's (as well as blurring of FOCUS) (I do not have consent to show her texts).

Her first attempt is unsuccessful: in Post 46 the moderator proposes allowing the status quo to prevail:

> *In the past I have allocated topics ... but I would like to try the other method as you all seem so keen! So you may select a period of life to study .... We may also get some opposing points of view.*

Processes are modalised, not categorical; students are flattered (*so keen* (JUDGEMENT:capacity)) and we see the rather ambiguous statement: *We may also get some opposing points of view.* Posts 61, 63 and 66 are the moderator's response to the second suggestion, which had garnered quite a lot of support from other students. In these posts the moderator apparently seeks to re-establish her control over the discussion, which I argue leaves its traces both in task instructions and expressions of attitude in these posts.

Instructions generally speaking become more congruent:

> *Please wait ... (64) / please keep your postings to a maximum .. (66)*

There are many statements without modalisation or modulation:

> *I will be assigning ... and will be starting 2 threads to follow ...(63)*

> *Later today I will create 2 threads ... (66)*

> *Your task is to summarise (66)*

Some modalisation hence ambiguity remains:

> *You may begin earlier if you wish... (66)*

> *you may also wish to continue longer ... (66)*

and the matter of attachments remains ambiguous:

> *You may wish to attach ... (66)*

> *there is no need for everyone to hope to read them all (or any).(66)*

In her survey responses, the moderator confirms the analysis above:

> *I had to take back control....*

The density of AFFECT, APPRECIATION and JUDGEMENT in these posts may also mean that the moderator is seeking to re-establish social and teaching presence whilst clarifying instructions. The resources of ATTITUDE used include authorial AFFECT (*happily; I have time to dedicate to you*) and *hope* and *look forward* (inclination: desire: irrealis) and AFFECT ascribed to students *wish* (repeatedly), *hope* (both irrealis). Students are twice praised using inscribed JUDGEMENT: capacity (*keen*) and invoked JUDGEMENT: propriety (*most of you posted to the one thread this week*) in contrast to other unnamed students who were causing confusion by *starting a new thread every time they post* (JUDGEMENT: capacity: negative: invoked). Positive APPRECIATION (*interesting* [topic; irrealis], *in depth* [discussion] and *better* [procedure], mostly up-scaled) more than balances one count of negative APPRECIATION (posting attachments is unnecessary); salutations and affective formulae complete the picture. This attitudinal surge contrasts with lower levels of attitude in earlier posts.

In sum, the moderator started out with high levels of interpersonal metaphor but when faced with a challenge, needed to embrace congruence and clear instructions as well as building an attitudinal surge to regain control both of task framing and the interpersonal tenor of the discussion.

5.4.6 Negotiating specifications for tasks and participation

This section has explored the varied methods employed by moderators, and to far lesser extent students, to specify discussion tasks and guide online participation. Moderator choices revolve around interpersonal grammatical metaphor (for example statements and questions instead of commands) for instructions and GRADUATION: force and softened focus to manage the extent and timing of contributions. Beyond instructions, these resources, together with those of JUDGEMENT (as described in 5.3.3 above), serve to position the ideal online learner.

Students were less likely to negotiate tasks, perhaps unsurprisingly, but where they did so they tended to mirror their moderator's use of interpersonal grammatical metaphor.

The first point to note is that, as with ATTITUDE, responses to the perceived requirements of the mode varied between cases and individuals. Case 1 showed internal variation with Group 3's moderator employing most interpersonal metaphor; Case 2 featured high levels of interpersonal grammatical metaphor, AFFECT and APPRECIATION in instructions in and in Case 3, moderators toggle appropriately between congruent and incongruent realisations with very little AFFECT and APPRECIATION. The outlier again was C1M3G2, where congruent realisations and some invoked negative JUDGEMENT of students was associated with extremely low levels of student posting.

The second key point is that choices made have repercussions for the discussion.

On the positive side, where moderators choose incongruent realisations, this renders the relationship between them and their students more equal, potentially improving the tenor of the interaction and supporting the learning community. Softened FOCUS blurs categorical boundaries ('approximately twice') and meaning is implied and low-key rather than explicit. Moderators modelled incongruent task instructions for students, who by and large followed suit, also fostering community.

On the other hand, too much interpersonal grammatical metaphor and blurred categorical meaning (such as softened focus) may lead to a lack of clarity and possible confusion on the part of at least some students, to the point where they are unsure how to proceed. For example, the confusion surrounding whether to cite or not has implications for ENGAGEMENT in respect of sources, as I show in Chapter 7. This lack of clarity could a symptom of an underlying invisible pedagogy (Bernstein 2000).

The third important point concerns the characterisation of online discussants. Task descriptions serve to regulate learner behaviours, such as how much and when to post and to leave space for others to contribute. This, together with positive inscribed JUDGEMENT as noted earlier serve in this case to position the ideal online discussant. Such a person is aware of others in the discussion, adjusts contributions to provide opportunities for others to contribute and observes boundaries set by moderators. Positioning the online learner in this way makes the learning community explicit and seems to require some kind of collective awareness and care for others, a tall order when the spectre of assessment is more likely to lead to competitive behaviour.

There were a small number of student-initiated suggestions for tasks and, in one case, a concerted attempt to modify the task as set up by the moderator. The fact that the students attempt this at all, however infrequently, and using the same linguistic resources as moderators do, may be an indication of a flattening of hierarchies and evidence for 'democratisation' within online discussions.

Student survey responses shed some light on task instructions. They show that some students at least appreciated clear instructions. Group 3's tutor was explicitly mentioned:

> *She let us know at the beginning that she wanted us to build on each -others ideas and how many subquestions to answer in each thread. (C1R7)*

Case 2 respondents noted the lack of structure:

> *There was not a lot of structure ... (C2R4)*

> *Little direction was given in the first few weeks .. (C2R5)*

> *...chaotic ... (C2R7)*

Likewise in Case 3 responses, the absence of guidance for participation requirements was mentioned:

> *perhaps we need to be given a little more guidance about the expected length and frequency of posts, as some people were writing essays almost everyday (C3R6)*

Moderator predictability was considered desirable, for example:

> *The discussion work better when the moderators pose more questions more regularly and there is daily progress in the discussion. (C1R16)*

Providing moderator guidelines for task negotiation is particularly complex. Weak task instructions mean that the curriculum is implicit, whereas, for all students to succeed, instructions need to be clear and explicit. However, most moderators would prefer not to compromise interpersonal warmth and community building by enacting instructions congruently. In some discussions (Case 3 and the latter stages of C1G3) moderators balanced congruent and incongruent realisations appropriately. This suggests that congruent instructions are more prevalent where participants have come to know each other, either by means of a workshop or over time. This effect was not achieved with a quick *Getting to know you* discussion. This suggests in turn that tasks should be designed so that students spend longer in the same group, with the same moderator, than was the case for most of Case 1. The absence of any instructions regarding contribution also carries a risk, namely that students

may post too much, creating a massive workload for their peers. Clear instructions congruently realised could possibly be provided 'off-line' i.e. not in the moderator post but as an attachment or in another separate document and referred to.

5.5 Conclusion: A community of learners?

The existence of online communities of learners was postulated by the underlying pedagogy and has been described in published research findings. I have shown in this chapter that markers for a community of learners were present to a certain extent in the case study discussions. I also showed that these markers corresponded to some of the linguistic resources suggested in the literature for community-building, for example naming, pronoun use and expressions of emotion, as well as some resources not so described, for example interpersonal grammatical metaphor. Theorised in terms of SFL, resources of INVOLVEMENT are found as are those of ATTITUDE: invoked AFFECT, including affective formulae and phonological surges; APPRECIATION targeting the field of public health and student contributions and invoked positive JUDGEMENT of students (as well as a little negative JUDGEMENT and negative APPRECIATION). Moderator self-introductions also show community-enhancing empathy and self-disclosure. I showed that there was considerable variation between cases, groups and individuals in the use made of these resources and suggested these resulted from differences in teaching philosophy, topic and task design as well as learner characteristics such as previous educational and professional experience and facility with the English language.

The fact that students used similar resources (albeit at lower intensity) to those used by moderators to evaluate the course and their peers and to build an affective community might count as evidence for the 'levelling' effect of online discussion, noted in Chapter 2, due to which status differentials are said to be reduced. In addition, there was evidence in Case 2, and to a lesser extent in Case 1, of students attempting to control task framing. Such role reversals lend some support to the idea that online discussions may be a somewhat democratic medium, although as noted in Chapter 2, this notion is not fully supported by research findings.

On the other hand, I also noted that students showed some opposite trends to moderators in their use of evaluative language. For example, students were more inclined to use inscribed than invoked ATTITUDE, the reverse of moderators. Student employment of the resources of ATTITUDE was lowest and moderator use of these resources highest in Case 1, and student levels highest and moderator levels lowest in Case 3. In these aspects at least, students do not

appear to be following patterns modelled by their moderators. It is not clear whether student posts (being more numerous) or moderator posts (writer status) contribute more to the sense of a community of learners.

I also showed that building a learning community in this way has potential negative effects. For example, interpersonal grammatical metaphor and reduced FOCUS in task instructions (particularly in Case 1) enhance reciprocity and feelings of equality which may support community formation, but at the expense of clarity of instructions. A similar Faustian bargain exists where moderators seek to maximise interpersonal relationships and reduce embarrassment by evaluating student responses generally and positively rather than individually and specifically.

The findings in this chapter also resonate with more general trends in higher education and the workplace (which many see as converging). These include an apparent levelling of power differentials , a personalisation of discourse and the requirement for participation in group interaction. For example, Iedema (2003) describes changes in post-bureaucratic workplaces including 'the elimination of overt markers of hierarchy and power asymmetry in types of institutional discourse where power relations are unequal' and a 'synthetic personalisation' (p.11, quoting Fairclough). The latter refers to the use of forms of engagement previously the reserve of friends and family. These characterisations also resonate with the requirement to build online community, as does the 'ethos of participation' (p. 197) in which non-participation is rendered 'questionable' (p. 12). However the fact remains that equality in these situations is apparent rather than real, as hierarchical relations remain in effect. This echoes the tension in the case study discussions between moderators seeking to ameliorate power differentials and promote a feeling of community and at the same time retaining the power to validate and assess knowledge.

Student experiences of community

To what extent did students themselves feel they were part of a community or experience 'social presence'? The survey questions did not mention 'community' but asked about 'comfort' in the online environment and the extent to which relationships with others were established. In Case 1 (Infectious disease), 62% felt comfortable most or all of the time; for Case 2 (Obesity): 29%, for Case 3 (Tobacco): 50%. Sadly, 57% of Case 1 and Case 2 respondents felt unable to develop good relationships with other online group members; for Case 3 30% felt unable to form such relationships.

Qualitative responses provide more detail. Many respondents regarded 'interaction' as existing only face to face (e.g. C1, R 1, R2, R18, C2R6) and difficult without 'verbal interaction' C2R3. Some felt there was no or minimal interaction (e.g. C1R9, C3R3, C1R16). Three respondents identified assessment and 'formality' as barriers to forming relationships or really interacting with others (C1R5, C1R8, C1R19). Community can be compromised by the behaviour of individuals (e.g. C1R7). However, some responses were positive, particularly from Group 3:

> *Generally positive interactions as other group members supported posts and encouraged discussion (C3R2)*

Interaction was seen as content-related

> *I think we are supporting each other to achieve as much knowledge as possible (C1R10, also C1R12 and C2R5)*

Respondents admitted that interaction and relationship-building online took time:

> *You got a feel for other individuals after reading their posts for 4 weeks. (C3R4)*

> *From my own personal experience ... it can take quite some time to foster what could be deemed as some sort of relationship ...But generally speaking, there were a core group of people who posted a lot and there is a sense of rapport evident. (C3R8)*

Some longed for more interaction:

> *I wish I could engage more with other members (C3R9)*

Judging from these self-reported reactions, there was only moderate support for notions of comfort and interaction with others, components of a learning community.

Research and its interpretation in guidelines

I have noted the pedagogical implications of my findings throughout this chapter. On balance, although my findings regarding communities of learners are not uniform or particularly compelling, it still seems worth trying to establish and sustain them. One reason for this is the research evidence for the positive impact of supportive communities on learning, as quoted in Chapter 2. However creating such communities is more complex than it at first appears.

The considerable variation which exists between cases even within the same content field and educational setting means that care needs to be taken with generalisations, both in research findings and moderation guidelines. I noted above that some of these offer suggestions which do not sufficiently take account of contextual variables. Examples were the use of pronouns,

which are very context-dependent (for example first and second person non-inclusive pronouns in self-introductions, questions and opinion texts) and the use of inclusive pronouns, which might not always be appropriate. Naming has different repercussions depending on whether it is carried out by the moderator or students. Self-disclosure also needs to be sensitive to context lest it prove counter-productive. Thus the key message for practitioners is to be sensitive to local variables such as the field, the activity type and learner characteristics.

My observation in several places above, that much of the AFFECT, APPRECIATION and JUDGEMENT in these discussions are what I term 'low impact', is of central importance to moderation. For example, moderator ATTITUDE in general was more commonly invoked than inscribed; affective formulae, phonological surges and future rather than actual pleasures (irrealis) take the place of explicit emotion; meaning is underspecified. APPRECIATION is positive, directed to the group, often invoked and metaphorical; where inscribed it is realised by a limited set of terms. JUDGEMENT is always invoked. The same applies to task specifications where modulation and reduced FOCUS blur categorical boundaries and interpersonal grammatical metaphor blurs status differentials. There is also evidence of the subtle use of GRADUATION to fine-tune attitudinal meaning (e.g. some good/all great).

It appears that these are all instances of reduced commitment. Commitment refers to the 'degree of specificity of the meaning instantiated in a text' (Martin, 2010, p. 20; see Chapter 3). Realisations which are invoked, metaphorical or modulated or have reduced focus, for example, commit less meaning than those which are inscribed and unmodulated. Meanings are low key, implicit. Moderators appear to have responded to mode variables, perhaps of visibility and permanence, and tenor considerations of status, by reducing the meaning potential committed in their posts. There are many possible reasons for this, some of which have been hinted at throughout this chapter. These include the desire for reciprocity and a smoothing out of status differentials and the fact that inscribed JUDGEMENT might appear patronising.

Thus the community in the case study discussions is supported by a level of AFFECT, APPRECIATION and positive JUDGEMENT, but this is understated or muted. The fact that most moderators in these case studies employed these strategies may mean that they are widespread, although this may be limited to the postgraduate and/or professional education context. Further research is needed to ascertain whether this is the case, and whether these strategies feature in other educational contexts. Interestingly, although in Case 1 *student*

ATTITUDE was on average similarly low-key, in Case 3 it was both more prevalent and more likely to be inscribed.

 The potential negative consequences from community-enhancing linguistic choices such as incongruent instructions and positive, group-based evaluations have been noted, particularly the risk that the pedagogy becomes implicit, hidden from at least some participants. This implicitness goes deeper than ambiguous instructions and can include the type of knowledge to be brought to the discussion and valued ways of discussing it. As Christie warns us, validation of personal voice and the expression of personal experience (as encouraged in many online discussions, particularly Case 2 in the present study) are associated with progressivist modes of learning, in turn linked to implicit or invisible curricula (1999, p. 171). Moderators therefore need to be reminded to compensate, for example with clear expectations and modelling or teaching of valued ways of participating. A moderator who tends to use interpersonal grammatical metaphor heavily should consider explicit instructions provided outside the discussion, especially where most students have little experience with online learning or come from non-English speaking backgrounds. Moderators who positively evaluate group answers and are reluctant to label a response as wrong should provide a summary or fact sheet of correct or suggested answers, especially where the topic admits of a narrow range of answers, as in Case 1.

Instances of logogenetic development of ATTITUDE and other community-building resources in C1G3 have been mentioned above. A gradual increase in the incidence of INVOLVEMENT, AFFECT and APPRECIATION in both student and moderator posts was noted. In this discussion and in Case 3, congruent and incongruent instructions were well balanced, reflecting greater familiarity of participants with each other, as mentioned earlier. This suggests two things. One is that a longer time-frame for the discussion and retaining the same moderator for a fully online group might be desirable. The other is that more time spent in prior face to face meetings (such as Group 3's three day workshop), where feasible, may lead to a more resilient community in which congruent realisations are more acceptable. This needs further investigation. It is also clear that negative ATTITUDE is counter-productive.

This chapter has started to map features of the new and evolving genre of asynchronous online discussions, including realisations of the community of learners in terms of attitude, moderator strategies to reduce status differentials and evidence of some democratisation of participation. In the next chapter I turn to a related concept, communities of practice, to explore both communality and identity within them.

Chapter 6 Negotiating affiliation and identity

The establishment and maintenance of a virtual community is one of the cornerstones of the pedagogy informing online discussions. Such communities have been characterised as communities of learners and communities of practice, as noted previously, depending on whether their primary focus is on the relationships between participants or on professional problem-solving and learning, respectively. In Chapter 5 I showed how communities *of learners* were discursively constructed and maintained to varying extents by moderators and student participants in them; the field is that of being a learner. In this chapter I extend my discussion to consider communities built around the tasks of public health professionals and the content being discussed, in other words communities of *practice*; the field is public health content.

Membership of a community, online or otherwise, may be said to comprise the interplay of two types of identity: a communal identity and an individual identity (Knight, 2010). This follows from the concept, noted in Chapter 2, of identity as being discursively constructed and perceived in interaction with others (Gee, 2000). In Chapter 5, I presented communities of learners in terms of communal identity, jointly negotiated by participants. In such communities, any individuals' lack of identification or engagement with the community was covert and implicit rather than overt and was evinced, for example, by not posting, not responding to others or not adhering to posting guidelines. This chapter sees a realignment. In it I will consider both communal and *individual* identities in communities of practice. Thus I aim to discover first whether a communal identity based on the ideational meaning of the field can be identified in the case study discussions, and how membership of this community is realised linguistically. I am also interested to see whether any of the tensions identified in Chapter 5 between interpersonal and ideational meaning-making persist in this type of community. Second, I aim to discover whether individual identities can be discerned in the community of practice, and if so how they interact with it. I first discuss to what extent the case study discussions meet the criteria for Communities of Practice (Section 6.1) before theorising membership of such communities linguistically (6.2). I describe findings concerning affiliation around public health research (6.3), tasks and procedures (6.4) and field content (6.5). Following this I theorise individual identity linguistically in general terms (6.6) and online learner and professional identities in particular (6.6.1). Section 6.6.2 contains a case study of the conflict between individual and communal identities. Section 6.7 concerns conflict in online discussions and 6.8, online discussions and academic writing. Fostering community around professional tasks and content and balancing an individual's need to be heard with the

needs of the community are important tasks for the moderator, thus the conclusion (6.9) includes pedagogical implications.

6.1 Online communities of practice?

Communities of Practice (COPs) are work-related groupings with social and practical overtones, formed to foster and scaffold learning and solve problems. They are characterised by mutual assistance and support, with members moving from the periphery to the centre as they become more expert (Wenger, 1998). The literature suggests that communities of practice (COPs) can be and are created online (e.g. Lea, 2005), although doubts remain (e.g. Nichani &Hung, 2002). Features of such communities were noted in Chapter 2, although the concept's fluid and elusive nature and the lack of detail in general, and regarding linguistic realisations in particular, make describing them a somewhat perilous undertaking.

The case study discussions meet the conditions for communities of practice to a certain extent. Participants in the discussions comprise professionals already working in the field, those working in related fields and those who have yet to join the public health workforce, thus meeting the COP requirement for both expert and apprentice members. COPs feature discussion of content and procedures related to the professional context and the use of specialised languages; this condition is met by Cases 1 (Infectious disease) and 3 (Tobacco control) but less so by Case 2 (Obesity). Shared interests and goals exist in all three cases but these are ambivalent. Participants may have shared general goals, namely to improve the public's health, but in a pragmatic and immediate sense they are competing for grades. Case 3 participants may have felt more united in a common endeavour than those in other cases, due to the nature of the topic, the fight against the tobacco industry. Collaborative discussion and problem-solving are appropriate to working in public health and the tasks in Cases 1 and 3 are fairly authentic; group learning and authentic tasks are both features of COPs. However, social relations are those of a community of learners rather than a professional environment, with the role of the team leader more sharply delineated as moderator and assessor. 'Learning to be', that is imagining or reinforcing a professional identity, is encouraged by a scenario-based activity (Cases 1 and 3) but less evident in Case 2, where the topic is more general, academic and decontextualised (finding and discussing readings on a given topic). One of the key features of COPs is the move from the periphery to the centre as members become more expert. These discussions are probably too short to observe such a progression, which if present might include increased technicality and abstraction and scaffolding of others'

learning. In other respects though, there is a *potential* in all three cases for COPs or elements of COPs to form.

6.2 Theorising communal identity linguistically

Accounting for the discursive construction of identities, whether this occurs online or not, is a complex endeavour. Until now, insufficient attention has been paid to the linguistic realisations of identity construction (Bednarek, 2010, p. 250). I seek to address this deficiency for my specific research context in this chapter, agreeing with Tann (2010) that 'SFL can perhaps provide identity research with a detailed framework for analysing actual language use' (p. 169). As noted above, identity has a communal and an individual face: the discursively constructed community has a communal identity which is shaped by and in turn shapes individual identities within it (Knight, 2010). In this section I theorise communal identity in terms of SFL; I theorise individual identity construction in Section 6.6 below. However I note that SFL theorisations of identity formation are still in development.

The community encompasses a person's own individualised meaning potential and self-image as well as a 'shared self realising bonds with others' (Knight, 2010, p. 43) collaborating in a shared culture (p. 53). However, individuals may subscribe to the community ethos to a greater or lesser extent; they may choose to accept or resist a communal identity, just as they may choose to take on or resist an institutional identity imposed by their participation in a learning activity or course of study. I noted in Chapter 5 that some moderators do not appear to create, and some students fail to engage with, communities of learners. However, even where Individuals accept the communal identity (or show no signs of rejecting it), their personal identity is unavoidably enacted in the discussions.

Discursive identification with a community of shared professional activities and values involves slightly different linguistic choices than does identification with a community of learners. The two community types do have in common that the identification is mainly achieved by interpersonal meaning. In the community of learners, interpersonal meaning-making targeted the other discussion participants, looking inward as it were. In COPs, interpersonal meaning-making looks outward, to the field of public health content. In the latter, participants use interpersonal meaning to 'align [themselves] into communing sympathies in relation to *events and abstractions* of various orders' (Martin, 2004, p. 341, emphasis added). This is known as *affiliation*, involving the 'shared (logogenetic) identities of discursive partners', complemented

by *individuation,* the 'individual (ontogenetic) repertoires of individuals' in linguistic choices made (Knight, 2010, p. 43) (see Chapter 3.5).

Affiliation is realised by *couplings* of interpersonal and ideational meaning. Coupling 'refers to the way in which meanings combine – across strata, metafunctions, ranks, and simultaneous systems ... and ... modalities' (Martin, 2010, p. 19). When analysing feelings and the negotiation of communities, 'we need to keep in mind that feelings are always ... interpersonal attitudes to ideational experience' (Martin, 2004, p. 337). Such couplings '... realise social bonds with which participants discursively construe their communal identities' (Martin, 2010, p. 42). In INTERPERSONAL + IDEATIONAL couplings, affiliation may be realised by a wide range of linguistic means. These include evaluative and emotional language, reference to beliefs and shared personal experience (Bednarek, 2010; Martin, 2008) and aspects of INVOLVEMENT e.g. naming, technicality, abstraction and acronyms (Bednarek, 2010, p. 252), as well as intertextual and intersemiotic references (Caple, 2010). In terms of ATTITUDE within couplings, AFFECT may be said to negotiate empathy (sharing emotions), JUDGEMENT character (sharing principles) and APPRECIATION taste (sharing preferences) (Martin, 2004, p. 329). Finally, even though the goal of affiliation is to negotiate shared values, individuation still plays a role: each participant in this negotiation draws on his/her own repertoire to recognise and realise these values linguistically. The analysis which follows will have a strong focus on the role of couplings of interpersonal and ideational meaning in creating affiliations amongst discussants. Due to the wide range of realisations of coupling and of purposes they serve, I provide examples in context throughout the chapter, rather than in this introduction.

Knight (2010) offers an example of affiliation, in this case 'laughing affiliation'. It concerns a pre-existing community of friends who have between them similar status and access to genres and for whom the 'achievement of similarity may be fore-grounded over the assertion of individual meaning potentials' (p. 39). A momentary tension arises where participants cannot affiliate over shared meanings (festive eating and weight in this case). This is laughed off. In this situation, a 'person's sociality and identity' are closely tied up with the 'construal of communality' (p. 39). In contrast, online discussions represent communities that are 'institutionally sanctioned' rather than voluntary (Gee, 2000, p. 107) in which the community and individuals within it continually construct themselves. In such contexts, the negotiation of affiliation is rather more complex, especially since bonds are not stable and texts may reposition participants as they unfold (Martin, 2004, p. 327).

A closely related linguistic theorisation of community belonging is that of *bonding*. Bonds may be described as a 'semiotic unit bringing together interpersonal and ideational meaning' (Knight, 2010, p. 44). They have been extensively theorised by Stenglin (2004) in the context of museum and exhibition design. An example of bonding is through intertextual allusions in news stories (Caple, 2010), intended to build a sense of community and loyalty amongst readers (similarly Martin, 2004). However, an individual's reading position is critical – readers may or may not share the necessary cultural knowledge to respond to the allusions. Further, the attempt at bonding may misfire if allusions are considered inappropriate, alienating readers and causing them to reject the intended affiliation. Although online discussions largely lack the multisemiotic nature of bonding icons, I will argue below that certain couplings of interpersonal and ideational meaning in these discussions serve a similar bonding function and are subject to similar caveats.

Two related terms which have a bearing on bonding and affiliation are theorised in connection with ENGAGEMENT, namely *alignment* and *solidarity* (see Chapter 3). In this chapter I discuss only the least delicate choices in the system, that between monoglossic texts (not acknowledging others) and heteroglossic texts (acknowledging others), and within heteroglossia, expanding and contracting space for other voices. To recap, contracting space for other voices means that the speaker/writer strongly states a value position and seeks to *align* others with it; the interpersonal cost of disagreeing is high. This attempted *alignment* sometimes occurs in situations where it is assumed that this value position is shared (taken for granted, Martin & White, 2005, p. 100). In this case interpersonal meaning is not put at risk by strong authorial ENGAGEMENT. *Solidarity* is negotiated when a writer uses the resources of ENGAGEMENT to expand space for those with differing views; it reduces the interpersonal cost of disagreeing. I argue in this chapter that coupling and alignment/solidarity work synergistically in building a community around professional values.

This section has provided a linguistic theorisation of community building around values, on this occasion professional values. Affiliation and bonding are established and reinforced by means of couplings of interpersonal and ideational meaning. Resources of ENGAGEMENT are also involved in building a community of this type in so far as they build alignment and solidarity through contracting and expanding space for other voices. This theorisation will inform the analysis in the sections which follow.

6.3 Affiliating around research in the field

Affiliation within a community of practice potentially relates to any facet of professional activity which constitutes the field. For public health, depending on specific context, such activity includes reviewing and synthesising published research, carrying out investigations using existing or innovative procedures, advocating and attempting to influence health policy, intervening in a health-related emergency or chronic disease situation and evaluating such an intervention. For this study, I categorise opportunities for affiliation as being centred on research, procedures and field content. I concede that these distinctions are somewhat arbitrary and that it may be difficult at times to differentiate between research and procedures or procedures and field content. However the categories provide structure for the analysis and discussion which follow. I start with the field of research. Participants in these discussions refer to research either because it is explicitly mentioned in the question (as in Case 2) or because it is significant in public health, to provide an evidence base for interventions. My analysis sought to discover whether there is any affiliation around valued types of (published) research and if so, how it is realised.

When faced with an unfamiliar genre, students may well rely on known models, in this case research papers and assignments, to help them negotiate its requirements. Identifying and promoting valued types of research to support claims resonates with the purpose of research warrants (Hood, 2010), and is realised in similar ways. Important amongst these for the present analysis are two aspects of GRADUATION: quantifying an entity through *elaborating the parts or components of a whole* and quantifying a process as *extent* (Hood, 2010)*.* Elaborating parts of a whole includes, for example, enumerating the steps in a methodology, implying 'an appreciation of the complexity of the research design, even though no single process is itself inscribed with APPRECIATION' (p. 96). Quantifying a process as extent (distance and scope in time and space) serves to 'amplify the breadth of research' (pp. 98-9). Distance in time can reflect relevance, extent in time can reflect significance; distance in space (proximity or distance) can reflect generalisability. These meanings 'often draw on specific location references' which can then be contrasted and/or accumulated in list structures (pp. 99). In the sections below I show, amongst other things, how the elements of GRADUATION noted above are implicated in affiliation around the research, tasks, procedures and content of public health.

As Hood (2010) demonstrates, in academic writing the field of research recontextualises or *projects* the field of the object of study. Projection is understood in a 'metaphorical sense, at

the level of the discourse semantics' rather than lexico-grammatically (2010, p. 135) and realised in a variety of ways. Thus, from Case 2:

> ... the **Australian Bureau Statistics (ABS) media** reported 54% of Australian adults were overweight ...
>
> **... an article by deOuis and Blossher (2000)** raised some interesting points ...
>
> **Another study by Anderson, Butcher and Levine (2003)** directly examined how ...
>
> **The article** ... suggests that the mean birthweight has increased by 23 grams
>
> **The authors** suggest that increasing obesity rates .....

In the first example, *ABS media* projects the statistics (the field of the object of study); in the next two, the article and study by named authors project the findings and in the final two, the article and the anonymous authors project findings.

One test for affiliation might therefore involve identifying couplings of interpersonal meaning with ideational meaning (the field of research), for example *clear evidence* or *extensive research.* These couplings demonstrate the writer's value position: what characterises good research in the field. These value positions may be modelled by the moderator or held by students. A lone coupling expresses an individual value position and does not constitute a community. To the extent that multiple writers express the same value position, a community identity can be said to be forming around these values.

Identifying value positions around research was reasonably clear cut for Cases 2 (Obesity) and 3 (Tobaco). The Case 3 moderator directs students to 'recent and state of the art' papers and a summary but does not further mention the literature. Students largely follow standard academic practice when citing sources; the few couplings which exist around research mainly stress the importance of good evidence, the need for a *critical* approach on the part of the researcher, for research to be *peer reviewed* and a literature review to be *extensive*. APPRAISAL is largely inscribed rather than invoked, indicating a stronger commitment to the value position, and consists of APPRECIATION: valuation (*scientifically sound, clear, critical, peer reviewed*) and GRADUATION (*growing, sufficient, some, no, much more, extensive*). Case 2 students appeared to value research which was (apart from being interesting!): recent (*current literature;* e*merging research*), had good coverage in terms of number of studies reviewed (*10 articles; more than 100 studies*) or of geographical spread (*USA, France and Israel; 160 countries*). They also valued research based on evidence (*evidence-based statements and recommendations; any evidence; much evidence*). Once again both APPRECIATION and GRADUATION are featured. The moderator does not mention any type of valued research and

affirms students' relations to research only implicitly, in the context of her generalised approval of contributions.

In Case 1 (Infectious Disease) sources tend to be backgrounded, sometimes merely appended with no citations, in favour of general research and the procedures of the field. This makes it rather more difficult to identify values around research. In addition, the question itself favours procedures, particularly investigative, rather than a reliance on published sources, although the latter are still important. It is really only in M6G3 that research is mentioned, both by the moderator and students. There, the moderator invites *good, peer-reviewed references* (P1), both parties invoke the metaphor of a picture (eg *reasonably comprehensive picture)* and make reference to geographical scope to validate and contrast research findings (*nationally collected data* (P24); NSW, East and southern Africa; Africa and Asia, Australia, sub-Saharan Africa; internationally; Russia and the US). I note however that this discussion was dominated by one student, and that many of the references to research merge into procedures, for example *guidelines*.

To summarise, there were some commonalities across cases in terms of valued research, namely the importance of an evidence base*,* recency and wide coverage (geography and number of studies). These represent points of affiliation around appropriate research methods and as such potentially contribute to the building of a community of practice. This provides an opportunity for moderators to stress the need for current, extensive evidence to support claims and to model and encourage ways of describing research. Moving outside online discussions, knowing how to write a research warrant is an important component of academic writing (Hood, 2010) and online discussions may provide an apprenticeship into those skills.

6.4 Affiliating around the tasks and procedures of public health

Post-graduate studies in public health, recontextualising as they do both the research and the practice of the field, seek to teach appliable skills (procedural knowledge) as well as content knowledge. In this section I will investigate how affiliation around public health tasks and procedures is realised linguistically by both moderators and students. I begin with an example to contextualise my analysis, then proceed to survey all remaining discussions.

6.4.1 Showing the way

As the 'expert' member of the community of practice, the moderator is in a position to model for students value positions related to the tasks and procedures of public health, part of

'learning to be' a professional in the field. The moderator's self-introduction in C1M1G1 provides a densely attitudinal introduction to the field of Public Health procedures, specifically for infectious disease control. In these moves we see couplings of (largely inscribed) ATTITUDE with ideational meaning and the nuanced use of GRADUATION.

> *Many of us … were involved in fairly **intense** prevention, surveillance, investigation and control activities during the recent World Youth Day activities in Sydney (working round the clock in shifts to identify diseases with outbreak potential such as measles, flu, viral gastro and meningococcal disease so we could intervene early and **hopefully** avert outbreaks). We did get quite a few little outbreaks of flu, and sent teams out … All very **interesting** (and quite **fun**), and now that its over we need to evaluate how it went … so we can learn for the future.*

I propose that these lines seek to motivate students, and to affiliate them around the tasks, procedures and in fact mission of public health. The ideational meaning (prevention … activities) is appraised as intense *(APPRECIATION: reaction: impact: inscribed: positive)* which is in turn modified with fairly (GRADUATION: focus downscaled), putting these activities in perspective – they were intense but more intense prevention activities are sometimes called for. Ideational meaning is again coupled with *APPRECIATION: reaction: impact: inscribed: positive:*

> *… all very **interesting** and quite **fun** …*

with interesting up-scaled and fun down-scaled. The moderator is treading a fine line here: for some, the coupling of outbreak prevention with fun might seem odd and affiliation might be placed at risk, so he softens the focus a little. On the other hand *interesting* is perhaps the most common, and certainly most overworked, form of APPRECIATION in these discussions, and can safely be up-scaled without putting affiliation at risk. Writing in the same post about his work in general, the moderator couples APPRECIATION with ideational meaning:

> *help investigate … **complex** outbreaks*

APPRECIATION as complexity is common in these case studies, particularly in Case Study 3, as I show below. It poses difficulties for analysis as it is ambivalent: complexity might be perceived as negative (difficult, intractable problems) but viewed in context, it often appears to be welcomed, as a challenge in actual or intellectual terms, a much more intense form of 'interesting', as it were.

Couplings involving GRADUATION are common. In the sample text they are often up-scaled (for example intensification of an attribute as in ***really** fascinating, **very** interesting*). The moderator makes use of repetition, showing high levels of commitment:

> *put together, analyse and report on* statewide surveillance data,

> fairly intense ***prevention, surveillance, investigation and control*** activities

He also makes frequent use of GRADUATION coupled directly with ideational meaning (i.e. without APPRECIATION) with respect to space:

> [public health units] ... ***across the state***

> ***large*** outbreaks

and time:

> ***recent*** World youth day activities

> ***round*** the clock [activities]

In public health, particularly disease control, time and space (also normality, place and jurisdiction) are very important: *Exactly where did the outbreak start? When? How does the number of cases compare to normal or background incidence? How far has it spread? How fast is it spreading? Whose responsibility is it to act on the outbreak?*

The example above shows the moderator promoting the tasks and procedures of public health by means of couplings of ideational meaning (i.e. tasks and procedures) and interpersonal meaning (attitudes towards these). He uses resources of APPRECIATION, usually inscribed, as well as nuanced GRADUATION, especially intensification and quantification of time and space and repetition. This serves to build affiliation around the mission of public health and its importance. It imbues his discourse with excitement and motivation and shows the potential for building, where students 'read' compliantly, a Community of Practice. In terms of ENGAGEMENT, most of these K1 moves are bald assertions: the moderator is giving information about his professional activities, and correctly assumes that students in the group are, or will become, aligned to the values expressed, thus solidarity and community are not put at risk. From a pedagogical point of view, it is surprising how few moderators tried to build affiliation in this way around the task, procedures and mission of public health.

6.4.2 Couplings involving tasks and procedures

Students also contribute to the building of an affiliative community by coupling interpersonal and ideational meaning around tasks and procedures. I will describe this for the sample discussion (Case 1, Module 6, Group 3 on HIV), since of the three cases, Case 1 is the one most concerned with public health procedures. I have for the purpose of this discussion grouped procedures into categories related to figures and trends, problems and investigations.

An immediately striking feature of the case study discussions – as with other text types in public health - is precision with reference to figures and trends, in other words ideational meaning without graduation. Thus students write:

> *HIV by State: NSW - declined from 6.1/100,000 to 5.1 in 2001 and then increase again to 6.2 in 2007*

> *The decline is remarkable in the indigenous population from a peak of 2.7/100,000 in 2003-2004 to 0.7/100,000 in 2007.*

> *70% of 6-9 year old children with obese parents will become obese...*

In the sample discussion there are very few instances of ATTITUDE coupled with statistics and trends. The decline in HIV rates amongst aboriginal Australians is coupled with ***remarkable*** (appreciation: reaction: impact).

> *The decline is **remarkable** in the indigenous population from a peak of 2.7/100,000 in 2003-2004 to 0.7 /100,000 in 2007.*

HIV prevalence is coupled with GRADUATION:

> *On injection drug-use we may also give some evidence on the experiences with countries like Russia and the US whose negligence of NSP contibuted a lot to their **soaring** HIV prevalence.*

In the latter example, describing HIV prevalence (based on research evidence) as *soaring* in the US and Russia (together with the bald assertion *contributed*) strengthens the student writer's value position around supporting needle exchange programs and seeks to align others to this view. In the following example the moderator wants to align students to the insignificance of a number:

> ***Tiny*** *proportion of people who are infected*

In fact, the need for accuracy itself is often mentioned (APPRECIATION and JUDGEMENT, also GRADUATION]:

> *We need something **more specific** ..*

> ***Accurately*** *assess ..*

> *... communicating **accurate** information to the community (M1G1P25)*

I noted above that ***complexity*** is often invoked as a feature of work in public health, and have also noted that it is sometimes difficult to judge whether it is used positively or negatively. In

the sample discussion the moderator thus describes the complexity of investigating sexually transmitted diseases; here evaluation is generally inscribed and negative.

> **Difficult to quantify** the extent of the problem /**Complex** issues/ **Tricky** issue/ **More difficult** to measure [behaviour]

There are instances where lack of complexity is positively evaluated, for example *Not too hard to measure [awareness].* Complexity (or rather its absence) is also often invoked with respect to communicating with stakeholders or the public:

> *Clearly and accurately inform the community*

or with respect to a presentation:

> *Basic [it = presentation]/ not get too bogged down in details [presentation]*

Less common are instances of couplings involving GRADUATION around ideational meanings when describing problems. Thus:

> *A little unusual [notification] / Common cases/ commonest case*

reflect the need for public health practitioners to be alert to anything out of the ordinary, while couplings of APPRECIATION or JUDGEMENT with ideational meaning such as the following stress the need for correct procedures:

> **Effective** infection control measures / Implemented **properly**

Finally, GRADUATION by means of elaborating the parts or components of a whole (Hood 2010) was common in the sample discussion when describing investigations. For example, Lee lists steps in HIV surveillance: *carry out (testing) – collect (information) – (information) collected and entered – collects (information) – (information) is forwarded.* This is combined with a listing and contrasting of specific geographical locations (extent in space) and listing of organisations involved.

> *National surveillance system ... state governments ... each state ... all states and territories ... NSW HIV database ... National Centre ... National HIV Database ... WHO ...NSW Health Surveillance data*

By combining these, Lee is coupling GRADUATION with ideational meaning (the HIV surveillance system he is describing) thereby strengthening his claim for the robustness and coverage of the course of action he is recommending, with a view to aligning others to his view. There are numerous other examples of this, from moderators:

> *nationally collected data /*

> *the northwest/ state/local*

and students:

> *NSW/ region/ state*

Time is frequently graded for scope and distance in support of ideational meaning, often contrasted**:**

> *Historical data/ recent trends*
>
> *Present history/ past history*
>
> *Ongoing surveillance*

In these examples, amplification of the breadth of data collection and the extent of surveillance represents a positive value.

In terms of ENGAGEMENT, resources of expand and contract alternate in the sample discussion. For example:

> *I **think** the council should be given the opportunity to have a fair idea of the global picture of HIV-prevention programs especially those that involve a good mix of intervention and in respective sub-populations. (expand)*
>
> *Overall there **is** a stable annual AIDS diagnosis at around 240 from 2001-2007, ... (contract)*

This represents an appropriate balance between alignment and solidarity. The only exception is Lee's posts which see higher levels in the use of **contract.** I discuss this phenomenon in Section 6.6, below.

In this section, I have shown that both moderators and students sought to bring about a degree of affiliation around the tasks and procedures of public health in Case 1, enacting a communal professional identity. This was realised primarily by couplings of GRADUATION and ideational meaning, in terms of referring to places, time, number and trends and enumerating the parts of a whole or listing procedures, often reinforced by contrast or repetition. There were only a few examples of APPRECIATION or AFFECT related to these procedures. This inculcation into the role of a professional can be modelled and guided by the moderator in technical and professional learning contexts.

6.5 Affiliation in the field of content

The ostensible purpose of online discussions is the rehearsal and construction of subject knowledge. Thus affiliation might also be found around public health content, just as it was

around public health research and professional procedures. The content of the field of public health includes, at the population level, diseases, both communicable and chronic; health behaviours, ill health and disability and their sociocultural determinants; causality, trends, data and interventions. In Chapter 5 I noted that APPRECIATION in student posts tended to target the professional *field*, rather than peers or their contributions. I suggested this may contribute to the building and maintenance of a community of practice. Thus, in this section I look for evidence of affiliation around public health content by looking for couplings of interpersonal and ideational meaning as well as alignment and solidarity. I take my examples this time from Cases 2 and 3, but unlike the previous section, I will focus on specific instances or incidents (purposive sampling) which demonstrate strong affiliation, rather than taking a survey approach.

6.5.1 Affiliation around JUDGEMENT in public health: Big Tobacco

The scenario for the first **Case 3** discussion involves working with tobacco industry representatives (and others) to consider incorporating harm reduction principles into the national tobacco control strategy. It is intensively and extensively debated. In this section I focus on an issue which achieves prominence in the discussion: the nature of the tobacco industry (pejoratively called *Big Tobacco*) itself. Participants in this discussion are self-selected: most of them are likely to have a strong interest in, and possibly professional experience of, tobacco control, and all have previously attended a related 3-day workshop. For these reasons they may be regarded to some extent as representing a pre-existing community.

Negative judgement targeting the tobacco industry and its activities pervades the Case 3 discussion. Of the 48 eligible posts analysed for attitudinal meaning, 21 (20 posted by 12 different students and 1 by the moderator) exhibited this feature; in addition one post negatively evaluated shopkeepers. These posts were supported by 5 posts positively evaluating tobacco *control* groups. Posts negatively evaluating the tobacco industry did so in a remarkably similar way, as I will show.

An example of negative evaluation of Big Tobacco

Post 2 was the first post to exhibit negative appraisal of the tobacco industry, predating the moderator's first such post (although the tone may have been set in the workshop). I start by unpacking a segment from this post as an example.

> *The advertising of such 'safer' products will likely allow the industry to aggressively market their*
> *smokeless tobacco products to non or ex smokers, and children, despite the fact that industry*

representatives continually claim that they aren't interested in persuading children to smoke, despite their subversive advertising techniques (Davies 2005).

The whole segment can be read as an extended invoked instance of negative JUDGEMENT: social sanction: propriety: the tobacco industry will use the supposedly safer nature of smokeless tobacco products to expand their marketing to groups who should not be targeted. There are few instances of inscribed JUDGEMENT embedded within the segment: for example in the coupling of *subversive* (negative propriety) with ideational meaning in *advertising techniques*. Most JUDGEMENT is invoked and instances are often embedded, for example the *subversive advertising techniques* claim is embedded in an extended invoked passage of negative JUDGEMENT: veracity (Big tobacco claims it is not interested in marketing to children but their advertising methods suggest otherwise). This is itself embedded in the invoked negative JUDGEMENT: propriety with which I started. Additionally, in terms of commitment, *aggressively* is upscaled Force: intensifying: a process and *continually*, upscaled Force: quantifying a process: frequency, showing strong commitment to the value position, reinforced by saturating a phase of text with multiple instances (Section 6.2.2).

In this segment, ENGAGEMENT resources combine with couplings of interpersonal and ideational meaning to build affiliation. For example, *'safer' products* involves a coupling of AFFECT: security with ideational meaning and ENGAGEMENT: expand: distance by means of scare quotes, seeking alignment around the idea that everyone agrees that these are so-called but not actually safer products. There are three instances of unmodulated processes (*market, claim, aren't*), one deny (*aren't*) and two instances of *despite* (contract: disclaim: counter) working to strengthen the writer's commitment to the value position.

The negative JUDGEMENT combined with higher levels of commitment through GRADUATION as well as instances of **ENGAGEMENT: contract** enact a rich prosody of negative evaluation. These are indicative of the writer's commitment to the value position and strongly seek to align others to that position. As such I argue that the writer is seeking to build an affinitive community with others who feel the same way about the Big Tobacco and its health-harming activities. This does not appear to be a risky endeavour, since it may be supposed that members of this self-selected cohort would agree with this viewpoint. In addition the writer has used ENGAGEMENT resources of <u>expand</u> on three occasions to build solidarity with those who may not entirely agree. This shows the subtlety of the linguistic resources used to maintain an online community of practice.

Further instances of negative evaluation of Big Tobacco

The segment described above is not an isolated text; as noted there are 19 similar posts from 11 other students addressing aspects of the tobacco industry and lobby. A sample of such posts follows, with commentary on selected aspects. Pseudonyms have been provided to show that, although Adit is perhaps most outspoken in his evaluation, other students are not far behind. Posts using similar types of APPRAISAL have been grouped for ease of reference.

Group 1: Invoked negative JUDGEMENT: social sanction: propriety

> *... the industry has a marked reputation for manipulation and deceptiveness. (P34 Adit)*

> *... we all suspect underlying motives on their part (P35- Anh)*

> *... try to outmanouvre public health people. (P36 – Theresa)*

> *... decades of industry deception (Post 55- Caroline)*

> *... a purveyor of death and disease that fiercely opposes meaningful reform (Post 70 – Kumar)*

The tobacco industry's deceptive behaviour in general is evaluated mainly using invoked negative **JUDGEMENT: social sanction: propriety; GRADUATION: force:** *decades* of *industry deception* and **focus: authenticity** (*marked*) strengthens the claim. *Meaningful* reform is coded as **APPRECIATION: valuation.** Anh also uses the inclusive 'we' (health professionals working in tobacco control), again serving to create affiliation, this time through INVOLVEMENT. In terms of **ENGAGEMENT,** bald assertions predominate**,** further strengthening value positions,but since the alignment of peers is presumed this is unproblematic.

Group 2: Invoked negative JUDGEMENT: social sanction: veracity and GRADUATION

> *The tobacco industry has a very long history of misconduct, deception, denial and dishonesty about the health effects of their products (P55- Caroline)*

> *... much more strenuous attempts to minimize the perception that their products are really dangerous. (P50 - Leo)*

> *... the tobacco industry does not provide reliable information about the relative danger of their products (P50 - Leo)*

The industry is also evaluated with negative **JUDGEMENT: social sanction: veracity** (although misconduct represents negative **propriety**); **GRADUATION** includes *very long* **(Force: intensifying an attribute + quantifying a thing** in terms of **scope: time),** *much more* and *really* **(intensifying an attribute)** and *danger* implies **affect: insecurity,** in addition to listing in the first example**.** All

of these statements are unmodulated (ENGAGEMENT: contract), showing a strong commitment to the value position.

Group 3: Invoked negative JUDGEMENT: social sanction: propriety

In this example,

> *They are able to manipulate the government and get a head start in the development of new products meeting the governments harm reduction requirements. (P53 – Cynthia)*
>
> *... the government could be led up the garden path on this. (P35 – Anh)*
>
> *... uncontrolled grandstanding or splitting the tobacco control organisations (P36 – Theresa)*

tobacco companies' ability to manipulate government and tobacco control agencies is highlighted by invoked negative **JUDGEMENT: social sanction: propriety** with some modulation.

Group 4: GRADUATION: force and invoked negative JUDGEMENT

> *... tobacco **giants** spend **millions** advertising openly and also covertly (where advertising is banned). A major dilemma which has haunted public health tobacco advocates is the deliberate misconception by tobacco giants who have portrayed "mild" and "light" tobacco products as "safer" products from a health perspective (or should I say "tobacco perspective). It is **absolutely** appalling that these companies still continue to get away with such false pretences. (P40 – Adit)*
>
> *.. tobacco **giants** who would certainly use any means whatsoever at their disposal to market their brand name. (P40 – Adit)*

These posts describing advertising by the tobacco industry use both **JUDGEMENT: social sanction: propriety** and **veracity,** negative and invoked; **GRADUATION: force** upscaled (*giants/ millions/ major/ absolutely*) is used repeatedly and bald assertions prevail.

Group 5: Negative APPRECIATION and AFFECT.

> *Lots of **controversial** statements ... ... **'shock value'** statement ...not **surprisingly** ... quite **concerning***

When describing a lobby group web site in P65, Melissa changes tack to negative APPRECIATION: reaction: impact (*controversial, shock value*) and negative affect: insecurity: disquiet (*concerning*) and surprise (*not surprisingly*).

Similarly in P54, Adit's phrase realises JUDGEMENT: propriety through inscribed negative APPRECIATION: reaction: quality

> ***tainted** and **tarnished** image of the notorious tobacco industry.*

Finally, in P55 Caroline realises invoked JUDGEMENT: propriety largely through negative APPRECIATION and AFFECT, upscaled within an extended passage:

> the very same industry that is pushing harm reduction agenda in countries such as Australia with strong tobacco control measures is aggressively promoting its **addictive, lethal** products elsewhere in the world (usually to the most **disadvantaged** and **vulnerable**). So far as when it will be **acceptable** to deal directly with the tobacco industry, this cannot be until the **abuses** stop.

AFFECT and APPRECIATION are less common than JUDGEMENT, however, in this discussion.

Negative evaluation of shopkeepers

Shopkeepers are negatively evaluated in one post, mainly using invoked negative **JUDGEMENT: social sanction: propriety; AFFECT: insecurity** (concern); some GRADUATION and **ENGAGEMENT: contract** (**endorse** and **pronounce**) as follows:

> I would ... raise **concern** about shopkeepers ... As has been reported with **low** compliance rates with sales of cigarettes to children (1), many shopkeepers are certainly not concerned with smoking rates or the greater public health good!! (P75 – Birgit)

The good guys

Finally I turn to the evaluation of tobacco control organisations themselves, to which discussants may belong or wish to belong. These attracted a much smaller proportion of evaluation than Big Tobacco.

> ... over the years the endless **persistence** and shear (sic) **determination** of **numerous** agencies worldwide (including governmental and NGO's), scientific bodies, and in particular **world class** academics and advocates ... have made **considerable** and **profound** contributions within the domain of public health, having taken on the tobacco industry head on and resurrecting public awareness by spear heading **vigilant** campaigns worldwide. Much has been accomplished against the tobacco industry, with many nations having leaped boundaries .. (P41 Adit)

This passage features a strong prosody of **JUDGEMENT: social esteem: tenacity** with **appreciation: valuation** (for example world class; considerable, profound). GRADUATION is upscaled, for example: over the years: **quantifying process: extent: scope: time**; *numerous, much, many*: **quantifying thing**; *worldwide* (twice): **quantifying thing: extent: scope: space.** This passage exemplifies the accumulation of appraisal instances (Martin & White, 2005, p. 362) showing high levels of commitment and serving to strengthen the value position.

In a similar vein we see:

the 'good guys' (appreciation: valuation) of tobacco control (P42)

… {NGOs') hard earned (judgement: social esteem: tenacity) authoritative (appreciation: valuation) reputation … within the community (P55)

APPRECIATION and JUDGEMENT combine with ideational meaning to build affiliation around tobacco control organisations.

Building an affiliative community around tobacco control

To summarise, in these posts discussants use a range of resources to good rhetorical effect to build an affiliative community around negative appraisal of the tobacco industry and, to a lesser extent, positive appraisal of tobacco control organisations and individuals. The resources used include invoked negative **JUDGEMENT: social sanction: propriety** with a small number of instances of invoked negative **JUDGEMENT: social sanction: veracity** and an even smaller number of instances of inscribed JUDGEMENT. They also include couplings of interpersonal and ideational meaning (as suggested by the concept of affiliation) and up-scaled GRADUATION as well as resources of ENGAGEMENT to build solidarity. Building an affiliative community of this type serves several purposes. It bonds participants. It acts as a taken-for-granted background to the issues on which there is as yet no agreement amongst all members of the cohort: whether to engage with the tobacco industry in the matter of harm minimisation at all, and whether there is sufficient evidence that harm minimisation 'works'.

A collective voice emerges which is strong enough to allow us to talk of a discursively constructed community of practice, or the support and sustenance of one which may have existed when the discussion started. The extent to which the tobacco industry is negatively evaluated and the means by which this is achieved represent a strong sense of mission or even moral purpose, just as relevant to building a Community of Practice as are values related to research and technical procedures, if not more so. In this community a common attitude towards the 'enemy' unites and supports those engaged in the quite difficult and acrimonious 'war' (P34) against it.

6.5.2 Affiliation around JUDGEMENT in public health: obesity

Case 2 also demonstrates affiliation around negative JUDGEMENT, although it is less pervasive than in Case 3. The discussion task is in effect a group literature review: to summarise a piece of research on age groups 'more likely to be susceptible to weight gain'. Obesity and its causes and prevention are, of course, charged issues in society generally. The question posed asks students to propose periods of life predisposing individuals to weight gain. Posts available for

analysis propose young adulthood, adolescence, childhood (severally), infancy and in utero. A considerable proportion of posts do not address age groups at all, advancing reasons unrelated to age: genetic, social and environmental factors, the built environment, taxing and subsidising certain foods, physical activity and, of interest for this section, low socio-economic status (SES), fast food, food marketing and individual responsibility (a taxonomy of topics covered is provided in Appendix 2.11). They do not answer the question, although the moderator never mentions their irrelevance.

When analysing posts for this section, distinctions need to be made (based on context and co-text) between interpersonal and ideational uses of core terms. A term such as *obese* can be used interpersonally in some contexts; however in this context the cline of terms describing weight (*wasting – underweight – normal weight – overweight – obese – morbidly obese*) are considered to be used ideationally, as there are agreed numerical measures in place for each of these (for example Body Mass Index). *Healthy* and *unhealthy*, on the other hand, are considered to be evaluative, since there are no *precise* measures of what constitutes, for example, a *healthy* lifestyle or *unhealthy* food choices, although there might be broad general agreement.

One theme which permeates this discussion, in fact much public health thinking, is factors responsible for population health problems. To what extent should such problems be ascribed to individual health-compromising or risk taking behaviours or alternatively to factors beyond individual control, for example obesogenic environments, irresistible fast-food advertising or the nefarious activities of multinationals? Linked to this is the 'nanny state' argument: do we need laws limiting the behaviour of corporations and individuals in order to protect us from unfavourable health outcomes? Case 3 participants appear to strongly support a position blaming Big Tobacco and supporting legislative measures, thus non-individual factors. Several posts in the Case 2 discussion (particularly 8, 14, 16 and 21) take sides in this blame game; I analyse the appraisal choices in these posts to show how students seek to align others to their value position, and create affiliation around certain ways of viewing obesity and its causes. I will argue that, as with Case 3, this alignment is largely realised through JUDGEMENT, both positive and negative, as well as ENGAGEMENT. It is worth noting, however, that Case 2 participants are not self-selected: this is a core unit which all students in the degree must undertake, so a greater disparity in value positions might be expected.

Two **Case 2** posts (16 and 18) address the expensive impact of obese middle aged and older people on health systems in Australia and the US but do so with different appraisal choices. In this example:

> However, obesity is also a rising **problem** within the residential aged care (nursing home and hostel) environment. ... obesity rates are rising at a **frightening** rate across the world for many different reasons. Couple this with the ageing of the population in countries such as Australia and the result is an expensive increase in the already **struggling** provision of aged care. ... Obese people require expensive heavy duty wheelchairs, lifters, and **crucially** extra staff time, the **most** expensive resource, to meet their needs. Given the similar characteristics of the obesity increases between Australia and the US I can only assume the same **problematic** increases of obesity in nursing homes residents is on its way here.

Isobel relies predominantly on inscribed **affect: insecurity** (*problem, frightening)* as well as *problematic* and *struggling* realising negative **appreciation**) and inscribed **appreciation: valuation** (*important*). *Expensive* is used ideationally but repeated; upscaled GRADUATION: **force: intensification** (*crucially, most*) is calculated to align others to the serious problem facing the health care industry. There is no JUDGEMENT applied to individuals, but this conversely features strongly in Jim's post (18). In just over 200 words (paragraph 1 of his post), there are four instances of extended invoked negative **JUDGEMENT: propriety** directed at obese middle aged Americans (that they don't have health cover, that their primary model of transport is ambulances, that this is a burden on the health system and that at their age they should be healthy). Ambulance services are negatively evaluated twice in the same way (they have become a shuttle service; they are happy with this situation as they get paid regardless). There are far fewer instances of AFFECT than in P16: examples are *problem* (**insecurity**) and **stressed** (attributed to the health care system, also *insecurity*). Rather than expressing concern or insecurity about the situation, Jim appears to respond by judging individuals and institutions (ambulance service), tempered only by the fact that this JUDGEMENT is invoked rather than inscribed.

In an earlier post (8), Jim tackles a related topic. Basing his opinions on his professional experience with low SES communities in the Southern US, Jim frames the likely culprit for the latter's obesity as '*the diet, culture, and semi-urban / automobile lifestyle ... which skews the US into a **highly unfavourable** position'*. In this last phrase, he is strongly aligning others to his view with a coupling (or tripling) involving GRADUATION (force: intensification: of an attribute), inscribed negative APPRECIATION: evaluation coupled with ideational meaning (position). A

densely attitudinal passage follows which is summarised below; note, as elsewhere in this study, I am primarily interested in discourse semantic realisations.

Jim appraises five different entities: Low socio-economic status (SES) adolescents, low SES school systems, what I have termed 'societal factors', McDonald's and bad (food) habits. For **low SES adolescents** appraisal is mainly present in the form of **affect: insecurity**, ascribed to the target (*vulnerable, stacked against them, impressionable, victim*), three inscribed and one invoked; all are upscaled (*most, everything, one of the worst*). As AFFECT, these are emotional claims, serving to align others to a sympathetic view of these individuals. This is reinforced with the ironically used intertextual reference *perfect storm* (APPRECIATION: **valuation**). Jim invites empathy for individuals but judges institutions and society in general harshly. Low SES school systems, McDonalds and 'societal factors' are condemned with negative **JUDGEMENT: propriety.** For *schools*, this refers to installing soft drink vending machines to obtain revenue, outsourcing not only lunches but also breakfasts and cutting physical education programs; however this behaviour is apparently excused by the writer on the basis that schools are *underfunded* (APPRECIATION: negative valuation). McDonald's marketing techniques also attract invoked negative **JUDGEMENT: propriety** and **affect: insecurity** (*recipe for disaster,* pun no doubt intended). There are three instances of negative **JUDGMENT: propriety**, both inscribed (*complacency*) and invoked (comments about dialysis centres near McDonalds and media alternatives to physical activity) for which it is hard to discern a specific target (perhaps it is just *society* in general). The same target attracts negative AFFECT with *stress (poverty/ crime)* and negative **appreciation: valuation** with *fast food-low activity*. Finally, **appreciation: complexity** describes the difficulty of undoing, de-conditioning or re-conditioning *habits*. This is a strong claim on Jim's part, combining intensification of instances with saturation of a phase of the text with multiple instances (Martin & White, 2005, p. 362). This prosody of ATTITUDE, particularly JUDGEMENT, strongly supports Jim's value position. It functions to align others into an affinitive community of those who condemn fast food and deplore the way society and schools create obesogenic environments whilst evincing some sympathy for individuals (AFFECT).

In addition to ATTITUDE, patterns of ENGAGEMENT in Jim's post are not calculated to leave much room for alternate voices. Most statements contract space for other voices, for example bald assertions, counter and pronounce:

> They currently **have** everything stacked against them
>
> playing outside **is** forbidden by many parents

*This group **is** impressionable and also a victim of underfunded public school systems which*

***generate** outrageous subsidy revenues ... **still outsource** ...and **still cut** ... programs,*

*poorer districts **actually began** not only serving lunch, but breakfast too.*

***was unarguably** demonstrated*

However there are some examples of expand, particularly entertain:

*national prevalence rates, **likely** due to*

***seem** most vulnerable,*

*I **think** you **can** apply the same principles*

Although many fellow discussants do seem to be in agreement with Jim's line of reasoning, there was one post directly rebutting much of Brad's post (P25) which I do not have consent to show. Brad's comments in P21, while not a direct reply to Jim, indicate that he is not willing to be aligned to Jim's views.

I think it is very interesting that a number of people of named McDonalds in their posts and even though it is a LARGE chain, ok extremely large chain, there are many suppliers of food that is not even close to being healthy why is it McDonalds the one that the media (and most people) attack first? ... Even though I am not totally pro Maccas I just think that we have to expend our energy on promoting healthy eating habits and less about expecting a corporation to do that for us.

Student R also mentions in a post the limiting of marketing to food and drink to children, and you do see this sort of thought in many different places. In fact it is not just food and beverages that some people want to limit the marketing of. I believe there is talking of limiting all "nag marketing" campaigns. A nag marketing campaign is one where children nag their parents to purchase the item.

But my thoughts are, why should we expect a business to curtail it's activities? Is it forcing parents to enter their store, order the food and pay for it? No it isn't all of those choices have to be made by an adult. Kids nag, it is what children do. Shouldn't the parent have rules and stick to them? If an adult doesn't understand that fast food should only be in the diet sometimes as a treat or special occasion we have already lost the battle.

Now lots of young people are not supervised by adults 100% of the time. ... Is it reasonable for a parent to limit the child's pocket money and to monitor that child is spending it?

...

Rather than spend time and money and countless hours arguing about legislating the marketing
of food I think it would be better to spend it on direct education of people about good nutrition
and eating habits. Corporations are willing to change to stay viable. McDonalds does offer
healthier menu items now due to pressure for them; it is people that choose to order the Big
Mac rather than a salad.

He starts with an instance of **expand:entertain** and positive upscaled **appreciation: reaction: impact** (*very interesting*) but soon switches to negative JUDGEMENT: propriety (invoked) directed at his fellow discussants who have mentioned McDonald's in their posts as well as unnamed people and the media who always attack this fast food chain first. McDonald's gets off lightly, with GRADUATION: **force: quantifying a entity: mass** (*large/ extremely large*); it is described as now offering healthier (**appreciation: valuation,** slightly upscaled) *menu choices.* JUDGEMENT is reserved for parents and adults and public health bodies. For adults, half of the **JUDGEMENT: propriety** is irrealis (*Shouldn't the parent ...? Is it reasonable for a parent...?* with the affirmative strongly implied) and half is negative: (*doesn't understand that fast food ...; choose to order the Big Mac ...*). Brad feels public health organisations **should** (invoked positive judgement: propriety) *expend our energy on ...* and *spend (time and money) on ...* They **should not** (invoked negative JUDGEMENT: propriety) *expect a corporation to do that for us* or *spend time and money and countless hours arguing about ...* Again, a strong prosody of JUDGEMENT attempts to align others to a particular view about responsibility for obesity and the role of public health organisations, although there is a slightly higher proportion of **expand: entertain** than in Jim's post, allowing for other voices.

6.5.3 Fear and insecurity in the field of content

Another common form of ATTITUDE in all three cases is **affect**, particularly **insecurity** and **disinclination: fear,** either coupled with ideational meaning or as a disposition. I hinted at this when analysing Isobel's Case 2 Post 16 above: obesity is a *problem* and rates of obesity are rising at a *frightening* rate. In C1M1 the scenario explicitly attributes *concern* to the students as hypothetical public health workers; in C1M1G3 Sam mentions an *uncontrolled* outbreak; in C1M2G6 the moderator refers to *rising public concern* and *potential alarmist sensationalism* while Sam refers to *soaring* HIV infection rates. In Case 3, *safe* and *safer* are commonly referenced with respect to cigarette substitutes; P4, 15 and 19 see variants of *danger*, 25 *vulnerable* and 41 *uncertainty*. The concepts of *risk* and *harm* (**affect: insecurity**), often irrealis, are pervasive in these discussions. The frequency of tokens of negative AFFECT, particularly

insecurity and **fear**, is no doubt influenced by the field, but these are integral to the affiliation of prospective public health workers around their task and mission.

6.5.4 Affiliation in public health communities of practice

The analyses above have produced evidence to support the claim that students make extensive use of APPRAISAL resources to align others to particular viewpoints in public health and to build an affinitive community of practitioners. This is achieved mainly with couplings of interpersonal and ideational meaning, most commonly negative, inscribed and invoked JUDGEMENT with health-harming multinationals and, to a lesser extent, individual health-damaging behaviour. ENGAGEMENT functions to achieve strong alignment with an assumed common value position, with some use of EXPAND to build solidarity with alternate views. I showed that alignment around these values cannot, however, be taken for granted. While in Case 3 the attempted affiliation was apparently underpinned by existing general agreement on the core premise, in the Case 2 example the attempt was not entirely successful due to a divergence of opinion on core matters in a diverse rather than uniform (self-selected) group. There is also evidence of appeals to emotion, particularly AFFECT: insecurity, although these are less common. Some of these posts represent expository (presenting one view) rather than discussion (presenting both sides) genres, with some in part hortatory (calls to action). The use of these genres can also be viewed as attempts at overt alignment. It is interesting to note that a large part of COP building online was undertaken by the students themselves. Moderators can leverage positive affiliation, alignment and solidarity present in discussions and/or make use of these themselves to help build Communities of Practice, but they need to be alert to the possibility and implications of failures or disruptions of affiliation and alignment.

6.6 Theorising individual identity linguistically

Identities are not only communal but also individual. In this and the following section I explore the linguistic realisation, at the micro level, of the construction of individual identities in my data. This complements the focus on communal identity in Section 6.2 to 6.7 above. Theorising individual identity linguistically means asking how individuals' 'different forms of consciousness ... manifest themselves in different discourses' (Martin, 2008: 41). The concept of individuation (see Chapter 3) can help examine individual identity formation.

There are a small number of linguistically-informed studies of identity formation, both through print resources and online. Starting from the concept of nations as 'imagined communities', Tann (2010) describes the formation of a consistent, collective Singaporean national identity in

a school history text by analysing lexical strings and chains of reference and the use of the deictic 'we'. Don's (2007) mailing list cohort were notionally discussing 'content' but were primarily engaged in identity work. Goodfellow (2004) analyses a 'supportive' online exchange to show that 'the self-representation involved in making even brief and informal comments on shared tasks can constitute significant social action' (p. 387). He further describes a participant taking on a powerful dominant identity characterised by a distinctive communicative style (first to respond, responded to individuals, long responses, positive response to others although criticism might follow) supported by knowledge and skills in the 'technical and informational domains' and a specific 'cultural discourse' (p. 393). Individual differences and preferences can influence identification with the community and its processes (Johnson, 2001, p. 55). With respect to online learning:

> *'the disparate textual practices of individual participants and the evidence of strategies for resistance to socialisation into online learning communities present an immediate challenge to the ideal of democratisation of education'* (Goodfellow, 2004, p. 396).

Resistance, by means of which students 'retain power and sense of identity' (Lea, 2005, p. 190), may involve 'lurking' or staying on the periphery (ie minimal participation) rather than contributing, as noted in Chapter 5, as well as overt self-assertion, such as that described below.

6.6.1 Professional and learner online identities

The case study online discussions realise both communities of learners (Chapter 5) and communities of practice, as shown in the sections above. Thus, participation in them involves both identities as online learners within an academic context and professional identities within the community of practice. In the following sections, I provide an overview of the discursive construction of both types of individual identity. In addition, I track one individual's linguistic choices to examine differences and similarities with respect to other participants (individuation), logogenesis within discussions and implications of the play of individual identity. Understanding identity formation can assist moderators to foster positive identities, be alert to the negative effects of the play of individual identity and intervene in a timely fashion where it appears the community might be disrupted.

Learner identities

A learner identity in this context involves both academic and online discussant identities. A learner within an academic community is largely positioned by the institution while an online

learner is in addition positioned by the moderator and other participants. Membership of the community of learners *within* academia largely involves recontextualised academic and, increasingly, professional practice as well as adherence to academic standards. Members of such communities are expected to recognise and create academic texts, which they do with different levels of expertise and facility. The issue is of learner identity is rendered complex by factors such as a wider range of students (local and international) accessing higher education. It comes as no surprise that at least some students have difficulties engaging with the 'dominant literacy practices of the academy' (Lea, 2005, p. 192). It is commonly assumed that students will learn valued genres by osmosis; any encounter with academic discursive practices may therefore be viewed as part of an apprenticeship into academic genres.

Developing an academic learner identity is even more complex when it is negotiated online. For many – particularly professionals, those who are mature and those who have not studied for some time – the student identity may be awkward. Some may lack the required technical skills for online participation. For those who are accustomed to communities constructed by the social uses of ICT, applying them to pedagogical ends may be no less awkward. The online learner identity is often explicitly set up by the moderator, using mainly the resources of interpersonal grammatical metaphor and GRADUATION, as described in Chapter 5. Individuals may have difficulty engaging with an online academic identity for these, and other, reasons.

Discursive identity formation was encouraged in **Case 1's** *Getting to know you.* I observed in Chapter 5 that, in addition to positive AFFECT and APPRECIATION, evaluative language was used by students to present their **own** abilities, skills and orientation, for example positive JUDGEMENT: tenacity and JUDGEMENT: capacity. This was combined with AFFECT, largely projected into the future (irrealis), often up-scaled, to negotiate an identity as individuals who already possess knowledge, skills and understanding but are excited at the prospect of enlarging on this, ambitious individuals with enthusiasm for the topic and tasks. This might be termed the 'eager learner' identity.

Cases 2 and 3 did not contain a *Getting to know you* discussion as students had already met face to face; there is very little evidence of students self-positioning as learners. Where it exists, it evinces enthusiasm for the topic and discussion:

> *I'm looking forward to participating in some interesting discussion (Case 3 Post 2)*

Variations on interest (*I am interested, it is interesting...*) are common, as noted, and may represent a low-commitment self-characterisation. Parameters set by moderators for

participation are common in Case 1 and present to some extent in Case 2, although in the latter they are somewhat ambivalent.

One reason for moderators setting parameters is that, unlike assignments where every student can freely canvass any relevant information and express any apposite thought or opinion without fear of duplication, in online discussions contributors need to craft answers carefully, avoid repetition, not create too much of a reading burden for their peers and afford them the opportunity to contribute and gain marks.

Some participants acknowledged these guidelines in their posts, for example from Case 1:

> *i will keep this very brief because there are many of us in the group. i will answer a part and maybe someone could continue it.*

It is clear from the transcripts that not all participants are happy to play by these rules, indicated by not contributing (lurking) or contributing too much, or not interacting with peers, leading to badly formed exchanges. This may be a symptom of resistance to socialisation into such communities (Goodfellow, 2004) or may mean that individuals lacked confidence or the linguistic resources to contribute to this unfamiliar genre, given that participation had not been explicitly modelled.

An uneasy juxtaposition exists between cooperation and assessment, which students noted:

> *...we all just discussed in order to earn marks (C2R6)*

> *... students were more focused on the best marks possible for each posting rather than creating a full discussion.(C1R5)*

Survey respondents frequently commented on the failure of their peers to play by the rules:

> *The postings seemed to be dominated by the same few people (C1R4)*

> *... some of the students would write *extremely* long posts instead of keeping them short to encourage discussion. ... I think some people see online discussion as a way to post up opinions, rather than to engage with other students and to learn from others. (C3R8)*

To summarise, there is evidence in the discussions of self-described and moderator-regulated learner identities which are taken on to different degrees by student participants. Survey responses indicate that different forms of resistance (especially under- and over-contribution) negatively impact on student satisfaction.

Professional identities

Moderator self-introductions, where they occur, set up a warm interpersonal tone, but are also and perhaps more congruently an important part of building an identity in the discussion. For example, moderators who are not known to students seek to establish a professional identity by using GRADUATION (listing, extent in space) to strengthen claims about the breadth and depth of their experience:

> **Before** working at ... I was director of a PHU and **before** that an epidemiologist in ...
>
> I am an epidemiologist and manager ... [I had] a break in 2005 when I worked in **Denmark** for a WHO project.
>
> I tutored this subject in **2005, 6 and 7**

In Case 1's quarantined *Getting to know you* most students mentioned their professional qualifications and sometimes their professional experience. However, as noted in Chapter 6, few students did this overtly during the discussion; most claims are implied:

> in my hospital
>
> we rely on laboratory diagnosis as clinical diagnosis is difficult (M3G3, Lee implying he is a clinician)

In most cases students' professional identities are not overtly stated and must be assumed from the ideational meaning they contribute to the discussion. However these identity constructions may be called extrinsic – drawing on life outside the discussion. I turn now to what might be called intrinsic identity formation – discursively constructed within the discussion.

6.6.2 Individual vs community identity: a case study

Student discursive behaviour in the case study discussions can be described as generally compliant with the guidelines of moderators and the (apparent) demands of the mode. Linguistic choices made by some moderators and some students are conducive to forming a (sense of a) community of *learners*. Participants affiliate around values relating to professional roles in public health, building to some extent a community of *practice* around ideational as well as interpersonal meaning, as shown in the sections above. Failure to comply is covert rather than explicit, manifest as a failure to post, replying only to the moderator and not to peers, not responding to the content of peers' posts and low levels of (or no) ATTITUDE, vocation or greetings. Politeness is generally maintained, even where markers of community

are absent. Some disagreement was noted, which tended to disperse quickly but which nonetheless had the potential to disrupt the community. This can be seen as a tension between community maintenance and the development of ideational meaning, argumentation and critical engagement with the ideas of others. I discuss this further in Chapter 7.

The negotiation of individual rather than communal identity can be accounted for in several ways. These include documenting the overt self-presentation as a professional or learner mentioned above. An individual can be compared with other individuals or the community as a whole by means of quantitative and textual analyses of post format and posting behaviour. This provides insight into the individual's linguistic repertoire (individuation) compared to the reservoir of possible choices.

In order to explore the application of individuation to identity formation online, a small scale case study was undertaken. Case 1, Group 3 was chosen for this since it has the longest 'history' as a coherent group with the same moderator. The two most prolific male (Sam and Lee) and two most prolific female (Liz and Gitali) contributors were chosen, since these were most engaged with the discussion and provided gender balance and a reasonable volume of linguistic data for analysis. Lee's first ten substantive posts were chosen, along with all those of the other three contributors. The data were analysed both quantitatively and qualitatively, for example for negotiation features previously identified (see Chapter 4), the naming of individuals and quoting of sections of text (which seemed to show considerable variation) and aspects of APPRAISAL, for example ENGAGEMENT and APPRECIATION. The full analysis is provided in Appendix 11; below is a summary of my findings.

A quantitative analysis of comparative posting behaviour by Lee, Sam, Gitali and Liz shows Lee becoming the most prolific contributor by Module 6, with Sam and Liz maintaining their average and Gitali halving her contribution rate. The incidence of Lee's greetings, naming of and reference to individuals increases steadily, as does his tendency to quote the words of others and references to published research. A discourse analysis of all ten of Sam's, Liz's and Gitali's posts and ten of Lee's showed differences even between Sam, Gitali and Liz in terms of linguistic choices made.

- Gitali and Liz post less often than the male students and their posts are shorter.
- The most striking feature of *Gitali*'s posts is that she writes lists; processes are nominalised, obscuring most ENGAGEMENT in her posts; the remaining processes are fairly evenly divided between bald assertion and expand: entertain. The nominalisations would add more authority to her posts were it not for the lack of

appropriate surrounding grammatical structures. There are two instances of negative JUDGEMENT: propriety.

- *Liz* has posted just the required minimum number of posts; her bald assertions are appropriate in context and there are two instances of expand: entertain. She is more inclined than Gitali to use APPRECIATION: complexity, valuation and impact. She uses focus: valeur and fulfilment in Post 71, although Force is more common in this discussion overall.

- The ENGAGEMENT in *Sam*'s posts is mostly expand: entertain, although there are some bald assertions which are appropriate in the context. Like Lee, he tends to use geographical reference; there is some APPRECIATION: *remarkable* [decline in AIDS diagnoses]; *well-organised brothels; perfect intervention; important* [knowing]; *soaring HIV prevalence* is likewise attitudinal (upscaled GRADUATION). In other words, Sam's posts show more atttudinal meaning and a greater tendency to open discussion than those of Liz and Gitali.

Not only does Lee come to dominate the discussion in quantitative terms, his linguistic choices also distinguish him from the others. He tends to choose far more bald assertions and less expand: entertain than the others, although his assertions are generally unremarkable; he uses far more contract: pronounce and contract: deny (including one fully capitalised). Nearly all of Lee's posts reference information and evidence; he commonly uses GRADUATION: force, related to both space and time, with a slight tendency to upscale. His play with GRADUATION including repetition in Post 7 *Safe/safer sex/ IDU, high/ higher risk* seeks to align others to his value position. AFFECT (*amazingly, interestingly, unsure, scared,* ☺) and APPRECIATION (*important, interesting*, [not] *relevant, great, good, controversial, challenge*) as well as JUDGEMENT (*illicit, illegal*) also occur. More unusual are his description of another student's opinion as a *very provocative statement* – APPRECIATION: reaction, negative, upscaled; the statement that he hopes people aren't using blood donation as a screening service, which he later claims was meant ironically (which if true shows the pitfalls of using humour online), his 'no sound-minded person' statement which his peers may have taken the wrong way and his ironic negative self-judgement: capacity in Post 16 (*lame* attempt at humour) (although he judges himself more positively in *clearly indicated*, Post 21).

Particularly telling is the way Lee responds to other students' posts in Module 6. In Module 3, he asked a genuine question addressed to the whole group (Post 24):

I heard that most mosquito bites do occur around dawn and dusk. I am just wondering whether this applies to all insects/mosquitoes, or does this only apply to certain species of mosquito? Does anyone know?

In terms of the distinction made in NEGOTIATION between *tracking* moves which clarify ideational meaning and *challenging* moves which resist the interpersonal thrust of an exchange (Martin & Rose, 2007, p. 241), this move would be classed as a tracking move. Lee's Module 6 questions are different in several respects. They are addressed to individuals, rather than the group (while the moderator was always at pains to address and evaluate the group as a whole). He greets the individual, then quotes a line or two from his or her posting, thus targeting not just individuals but their specific words. This is said to foster community (Anderson et al, 2001), but this does not appear to be the case here. Although he occasionally follows the quote with a positive comment, the more common patterns are either to immediately counter the quote with 'I don't think...' (also occurs without a quote cf P14) or to ask one or more questions of the individual. At first sight these questions might be classed as tracking moves, as they apparently seek to clarify ideational meaning around the possibilities for safe sex and safe injecting drug use (IVU), the role of brothels in reducing HIV and STIs, guidelines for HIV testing and so on.

Very provocative statement! Interesting. Is there such thing as safe intravenous drug use? Is there such thing as safe sex with sex workers?.... I prefer to use the tern "safer" sex rather than "safe" sex. (P7)

I am just curious: how do brothels decrease HIV and STI in Australia? Are you aware of any evidence? (P42)

Do you know of any of the current guidelines or evidence based information in relations to HIV testing for sexually active heterosexuals? homosexuals? sex workers? (P46)

Just wondering - what sort of bias and confounding are you thinking about? (P73) (not preceded by a quote)

Although they are ostensibly about ideational meaning, these moves are ambivalent, and have the following features which make them seem more like challenging moves, although the absence of phonological clues makes it difficult to be certain:

- Labelling a peer's move as provocative
- Multiple questions, which the writer sometimes answers himself, meaning the questions are rhetorical.
- Some direct and unmodulated questions: Is there..? Do you know of...?

- Fronting questions with 'I am just curious' or 'Just wondering': downscaled **focus** and interpersonal metaphor normally soften questions, but here they strongly imply information was missing from the original post
- Apparent disjunctions e.g. safe and intravenous drug use, safe sex and sex workers, brothels and decreased HIV and STIs
- Questioning peers' knowledge, awareness and logic

Lee also describes a peer's ideas as 'not relevant' (P30). In other words, his evaluation of peers is generally negative. Even where Lee starts out with a positive evaluation, the effect is soon countered (e.g. P55).

Responses by other students to Lee's questioning include:
- The targeted student blames the misunderstanding on a typographical error
- The targeted student blames a misunderstanding of the question, qualifies his answer and thanks Lee for correcting him (P34), although it is difficult to know if this apparent subservience is ironically meant
- The targeted student openly disagrees
- Another student (not targeted by Lee) agrees with Lee but also supports the original post or supports the targeted writer
- Another student disagrees

The ambiguous nature of these posts (apparently tracking moves acting to challenge) is a feature of Lee's discourse. It is clear that Lee has chosen in this module to position himself to challenge fairly aggressively ideas put forward by his peers while maintaining a thin veneer of positive interaction. For his peers, the effect may be to enhance his status as a knower but the effect on the discourse is corrosive: a level of interpersonal conflict develops which permeates the entire module. Associated with this is a dropping off in contributions from other participants. There are clear parallels between this case and that reported by Goodfellow (2004, see also Section 6.6), particularly in the response to individuals instead of the group, positive responses followed by criticism and sound command of knowledge in the informational domain. In fact, although it is not possible to be sure, he may well be the student referred to in this Case 1 Group 3 survey response:

> There was a particular participant who dominated our group and was often quite tackless in his posts. I felt he should of been reigned in. I always dreaded going back to see my posts to see

The description above concentrates on Lee as an interesting example of the (increasingly corrosive) assertion of individual identity within an online discussion. This discursive construal of individual identity of could, of course, be mapped in similar detail for Gitali, Sam and Liz, or in fact for any discussion participant in terms of their individualised lexico-grammatical as well as discourse semantic choices. This could be mapped to a group norm, and might uncover other forms of learner identity demonstrating more constructive ways of critically engaging with the ideas of others or, alternatively, allowing for non-engagement to be better theorised. Individuation could be explored using a corpus-based approach, as long as a logogenetic component is included. However space restrictions preclude doing so in the present study.

6.6.3 Communities and individuals

The example above highlights several tensions inherent in online discussions. On the one hand is the maintenance of warm interpersonal relations and a sense of community, mutual support and cooperation. Opposed to this are two forces. One of these is the individual who does not appear to accept the academic/learner identity suggested and modelled by the moderator and tacitly accepted by most participants. Such acceptance includes rationing one's own posts and giving others a chance to contribute (as suggested by the moderator) and an implicit understanding that relations should be polite, positive and respectful (modelled by the moderator and observed by most participants). Lee breaks ranks on all counts.

More broadly, argumentation and debate are seen as part of online knowledge construction and of academic discourse in general and therefore to be encouraged. There is a constant tension between this and the maintenance of personal relations. Lee is ostensibly debating ideational meaning but does so in an interpersonally aggressive way, going beyond the differences of opinion noted for Big Tobacco and obesity. Whether this results from a need to assert an individual identity as a knower or the lack of skills to argue in a non-confrontational and nuanced way cannot be determined. However this episode underlines the difficulties inherent in trying to balance debate and argumentation with the maintenance of a warm and supportive community. It shows how fragile online communing identities can be.

6.7 Conflict in online discussions

Online discussions are often described as polite fora in which the maintenance of interpersonal relationships hampers critical engagement and argumentation, as noted in Chapter 2.

Although this applies to the case study discussions in general, the examples in Case 2 show that this is not always the case. There, disagreement or conflict arose over value positions (fast food) which were not uniformly shared. There was further disagreement in this case over the definition of gender, although it was well handled by students. Student survey responses for this discussion group showed that some students at least felt uncomfortable in this situation (original spelling and grammar):

> *Uncomfortable is that everyone knows who i am and sometimes the heated discussion can be quite oppressive... please don't publish our photo ... Don't like to have the feeling of possibility of confront.(C2R2)*

> *Similar to a face-to-face discussion group dynamics and individual personalities were evident. This can sometimes make the discussion uncomfortable. (C2R5)*

Disagreement may be the obverse of affiliation. It is ostensibly about ideational meaning but as shown it is coupled with interpersonal meaning. In the case of the obesity discussion, the strong prosody of JUDGEMENT is generally directed at external targets (except for the oblique reference to peers in P21), intended to affiliate others with certain value position. The interpersonal cost of disagreeing is high, leading to a perception of conflict hence discomfort. It is interesting to speculate whether this particular discussion would have been more or less acrimonious face-to-face, although it would presumably have been less protracted.

The pattern in which the controversies (and topics in general) in Case 2 are taken up is indicative of the non-linear and 'dissipating' nature of online argumentation. This is demonstrated in Figure 6.1, in which posts involved in the disagreement concerning the causes of obesity are shown in a darker shade of grey.
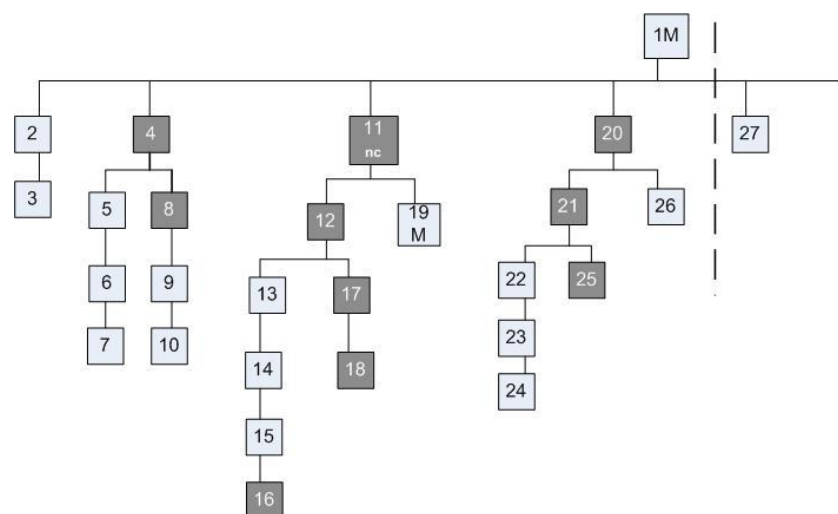
Figure 6.1 Case 2 Thread 1 Posts involved in obesity disagreement

The structuring of interaction in this part of the discussion can be described as chaining and branching with small amounts of recursion. Posts involved in the disagreement are separated by threads and by time. The disagreement 'chains' from post to post with only a small number of posts discussing the same topic before it is sidelined and a new topic taken up. Most of the interaction is supportive rather than combative. Where disagreement exists its target can be general (P21) but it can also be directed at an individual (P25). Arguments dissipate quite quickly which might prevent supportive communality being put at risk. There are other arguments in the case study discussions – over possibilities for harm reduction in Case 3 and with respect to sexually transmitted infections in Case 1, Module 6. I discuss these below in connection with individuation and in subsequent chapters in connection with argumentation.

Argumentation, critical enquiry and academic debate are welcomed in academic contexts generally and in online discussions specifically. Generally speaking, researchers characterise participants in online discussions as being unwilling to engage in such debate, a point I discuss at length in Chapter 7. However, it does appear that arguments over ideational meaning do on occasion flare up, and these definitely have the potential to impact interpersonal meaning in this context. I wish to suggest at this stage that, while subtler forms of evaluative language have become institutionalised in 'formal' academic writing, this has not yet occurred in online discussions. Spoken/written and formal/informal ambiguities may also hamper fine-tuning acceptable configurations of attitudinal language. These insights are revisited in Chapter 7.

6.8 Comparing discussion posts with academic writing

Students confronted with this new genre appear to draw on models with which they are familiar, for example written academic texts such as assignments or published papers, participation in face to face tutorials or conversational models. I noted above, for example, that student affiliation around public health research resonates to some extent with research warrants. Therefore, in this section I compare attitudinal meaning expressed in this discussion with that found in research papers, both to explore the notion of 'borrowing' from models and to consider the implications for students writing academic genres.

In online discussions, students may use research articles as models for at least some aspects of their posts. The generic structure and purpose of the two macrogenres (online discussion and research papers) is quite different, thus I consider and compare only the realisation of attitudinal meaning within them. I started this process when I compared affiliation around

research in public health to research warrants. This comparison will extend into Chapter 7 to consider ENGAGEMENT, but here I limit myself instances of JUDGEMENT.

Academic papers often appear at first sight to be attitudinally neutral. However, as Hood (2010) points out, they may have a veneer of objectivity but on closer scrutiny use a range of APPRAISAL resources to subtly position the reader in support of, for example, value positions regarding research. Even so, the extreme negative JUDGEMENT in the Case 3 (Tobacco) discussion posts described above and the fact that JUDGEMENT is often inscribed rather than invoked do appear at first sight to contrast with mainstream academic texts. There are several possible reasons for this discrepancy. These include the intrusion of spoken-like forms where students model participation on tutorials or conversations. Another reason may be the 'us and them' dichotomy and the advocacy role set up by the scenario as well as an apparently strong desire amongst students (potential and actual tobacco control workers) to build affiliation, enhancing enculturation into future professional roles and demonstrating legitimacy in this community of practice. This type of JUDGEMENT may have been modelled in the workshop (there are no data available to support this). It does not appear that students are modelling their responses on the moderator's negative evaluation, which is quite mild (e.g. P29), although moderators are part of the discussion's imagined audience. It is possible – perhaps even likely – that these posts are at least partially paraphrased from the sources cited. However, this intertextuality does not diminish the claims I make above regarding an affiliative community. Students may use any available resources to build affiliation, and the fact that they did so is significant in terms of meaning-making. This fact that cited texts may exhibit strongly evaluative language reflects the wide range of academic writing encountered in the field of public health: while much of it is precise, scientific and objective, it can sometimes be somewhat polemical, judgemental and subjectivised, particularly where advocacy is concerned. This is perhaps reflected in the segments above.

Regardless of whether students are copying the judgemental tone of cited texts or the workshop, or whether this is a direct expression of their collective attitude to Big Tobacco, or both, these extreme realisations of ATTITUDE are of interest to the extent that these discussion texts are (implicitly or explicitly) intended to be, or might usefully serve as, models for assignment writing or more generally, an apprenticeship into academic writing. Whereas more sophisticated learners will understand that these are inappropriate models for their own assignment writing, for some, especially those of NESB, this may not be so obvious. This taps into the argument about apprenticeship into academic genres. If students are expected to

write assignments, it may be an opportunity foregone to practise academic writing. On the other hand, the opportunity for the expression of opinion and the formation of a Community of Practice afforded by the medium may outweigh the lost opportunity to practise academic writing. This theme will be taken up again in Chapter 7.

6.9 Conclusion

This chapter has focused on the discursive construction of communal identities and has also examined specific features and instances of individual identity formation. It has seen the concept of community, described in Chapter 5 in terms of social presence related to being a learner, extended to one in which participants bond quasi as professionals around the procedures and mission of public health. This includes affiliating around valued research and sound investigative procedures, especially in Case 1. It also includes affiliation around the field of public health content, particularly with couplings involving JUDGEMENT (mostly negative, mostly of propriety but also of veracity). One example was a moral positioning with respect to multinationals (Big Tobacco) harming health, serving to establish strong affiliation amongst potential or actual recruits to tobacco control. Affiliation around responsibility for obesity (individual or societal) proved more elusive and provoked alternate views, again representing extensive use of JUDGEMENT: propriety but also AFFECT: insecurity and negative APPRECIATION. Potential ongoing dispute was averted as participants moved on to other topics; even if there was no agreement about responsibility, there was evidence of bonding around the severity of the problem. In this way, a community of practice was to some extent realised. Interestingly this was accomplished to a considerable extent by the students themselves, with little input from moderators. Interpersonal and ideational meaning supported each other in the creation of communities of practice, by means of couplings offering the potential for affiliation and ENGAGEMENT (alignment). Pedagogical implications include the opportunity for moderators to model valued research and procedures to facilitate enculturation into future roles.

Moving to individual identity, this is viewed through several lenses. Professional identities are occasionally overtly stated but more often implied, particularly in affiliation around professional values, as noted above. Learner identities are regulated by moderators, most significantly in Case 1; not all participants acknowledge these or take them on. Various forms of resistance were identified, such as absent or limited postings and replies. Most serious amongst these was Lee's assertion of individual identity (ostensibly around ideational

meaning) over community. The disruptive potential of such breaches of 'protocol' as well as conflicts over meaning mentioned above may show the fragility of online communities.

The pedagogical implications of these findings are first and foremost that, for professionally oriented degrees, building a Community if Practice, even if partial and short-lived, is a desirable aim and can be achieved by deliberately building affiliation around the tasks, mission and processes of the profession, or to support students when they do so. The second implication is that the aggressive display of individual identity, ostensibly around ideational content, is potentially corrosive of the sense of community (of both types) which has been established. Moderators need to act quickly, offline if necessary, to avert this.

The issue of argument versus argumentation is more complex. Whereas educators welcome critical engagement with ideas and argumentation surrounding issues, this is generally found to be wanting in online discussions (e.g. Coffin at al, 2012). Where it flares up as an argument, this may occur because participants do not have command of, or do not feel it appropriate to use, the more subtle forms of academic argumentation found in published papers. There is as yet no consensus on forms of argumentation appropriate to online discussions so they cannot be modelled for students. In the next chapter, I further explore this issue.

Chapter 7 Constructing knowledge in online discussions

Learning in online discussions is widely represented as the collaborative construction of new knowledge within participant interaction. Given the centrality of knowledge construction to representations of pedagogic mode, it is of concern that there is little agreement on how this might be achieved. The process is described on the one hand as reflective and social and on the other as involving critical evaluation and argumentation. It is said to involve both individual and group cognition and scaffolding of peers' learning and to be initiated by a cognitive conflict or problem. It may begin with the simple accumulation and presentation of knowledge and move through stages such as reformulation, integration, resolution and synthesis. However the scope of knowledge construction often appears to be limited compared to the expectations of educators. Although accounting for knowledge construction as a whole falls outside the scope of this study, in this chapter I propose to explore selected aspects of its linguistic realisation in the case study discussions, focussing mainly on individuals rather than communities, and student participants rather than moderators. My findings are intended to illuminate the issues noted above from a discourse analytical perspective and to suggest avenues for further research as well as providing guidance for task design and moderation. Reflecting the thesis as a whole, the exploration of knowledge construction is a linguistic one and analysis will be largely in terms of the system of ENGAGEMENT and genre theory. An introduction to relevant theory (Section 7.1) will be followed by insights into student views of peer learning (7.2). In the three following sections I explore knowledge construction from different angles: the shaping of the discussion using ENGAGEMENT resources of expand and contract (7.3), relationships to external and internal sources of knowledge (7.4) and peers as sources of knowledge (7.5). Given that the mode of the texts is written, and a large proportion of each post consists of K2 move complexes presenting information, knowledge construction will also be theorised with respect to academic written texts, specifically referring to genre theory (7.6).Section 7.7 forms the conclusion.

7.1 Theorising knowledge construction linguistically

A discourse analytical approach to online discussions implies a need to theorise linguistically both the notion of communities (Chapters 5 and 6) and of knowledge construction. Knowledge construction is here taken as equivalent to learning, albeit conceived of as resulting from individual agency rather than as a result of passive transmission. Chapter 3 contained a preliminary theorisation of the close connection between language and learning.

Studies of child language development (e.g. Halliday, 1975; Painter, 1999; 2004) have shown the parallel development from a very early age of functions which correspond to the ideational and interpersonal metafunctions in the adult language and have underlined the ongoing close connection between language and learning. The role of language in education has been mainly studied at primary and secondary levels, focussing on issues such as the development of grammatical metaphor (e.g. Halliday, 1993; 2003; Torr and Simpson, 2003; Derewianka, 2003; Ravelli, 2003 for academic contexts) and applications of register and genre theory (e.g. Martin & Rose, 2008). Students need to construe their experience in two modes – 'the dynamic mode of the everyday commonsense grammar and the synoptic mode of the elaborated written grammar' (Halliday, 2003, p. 112). They need to develop facility in moving between these modes and choosing the right point on a mode continuum to position their texts. Teachers also need to exploit these registers, as shown for example by Gibbons (2006) and Butt (2006) in their studies of scaffolding learning through discourse which toggles between commonsense and un-commonsense formulations, with increasing abstraction, decontextualisation and ideational metaphor. These considerations are supplemented by logogenetic theorisations, which track for example the development of arguments, abstraction and grammatical metaphor in individual texts (e.g. Kappagoda, 2005) and phylogenetic approaches, such as that of Banks (2003), which tracks the development of scientific discourse over several centuries in Western countries, in tandem with developments in the scientific reasoning it records.

Leaving aside the interpersonal dimension for a moment, how might the development of ideational meaning be theorised? According to SFL theory, the ideational metafunction construes 'all that goes on around us, and also inside ourselves' (Halliday & Matthiessen, 2006, p. 511) and helps us make sense of our experience (Halliday, 2004, p.: 24), as noted in Chapter 3. Ideational meaning is made by 'processes involving people, things, places and qualities', giving rise to the grammar of the clause (Martin & Rose, 2007, p. 75). The three systems of ideation are taxonomic relations, nuclear relations and activity sequences (p. 76).

Taxonomies of various kinds structure participants; fields (for example technical/specialised, domestic, educational, administrative) and their lexis may be located on a continuum of commonsense to un-commonsense (Martin, 1992, p. 544). Thus an individual's construal of experience can be described by constructing and interrogating taxonomies of lexical items used (Martin & Rose, 2007, p. 81). The collaborative construal of experience or construction of knowledge by all participants in an online discussion could be tracked in this way. The significance of repeated lexis or lexis which is more or less abstract, technical or metaphorical

could then be theorised. This was undertaken for a small sample (see Section 7.5 below) but the results are inconclusive. One difficulty, not found with single texts, is the complexity of interaction patterns in online discussions, as identified in Chapter 4. This includes the gradual build up of the text in time across multiple threads, with no certainty that an individual has read any specific text previously. Consequently it is difficult to claim that repeated or taxonomically linked lexis results from an individual having in fact read the text in which the original lexis appears. A similar difficulty arises in connection with replies and responses, as there is no evidence, other than repeated or linked lexis, that the text being replied or responded to has actually been read. This leads to a rather circular argument. Logogenetic studies of the whole discussion as a single text would present a more generalised picture but would still face the same difficulties in unambiguously linking texts.

This chapter sees an alternative, interpersonally-motivated approach to theorising knowledge construction that would address the interface between interpersonal and ideational meaning. This flows from the interpenetration of ideational and interpersonal meaning-making established above and the collaborative nature of online knowledge construction. This has previously been undertaken in Chapter 6, where the coupling of interpersonal and ideational meaning leading to affiliation in communities of practice was described.

7.2 Student views on peer learning

Before starting the analysis of collaborative knowledge building, it is worth reflecting on students' views of this activity. While most reported that they understood its intention and value, there was some deep dissatisfaction expressed which struck at the heart of the pedagogical premise for knowledge construction. The value of learning from others was referred to by students in all three cases:

> *The online discussions were an excellent learning tool … (C3R2)*

> *Members were able to provide very detailed posts relevant to their area of expertise which served as a good learning tool in itself…. (C3R2)*

> *I have learn something from other student (C1R1)*

> *Points were considered that i would not have considered with out the discussions.(C3R4)*

> *…different viewpoints from people from different backgrounds/experience allowed for a comprehensive learning experience… (C3R7)*

Some also recognised their own role in helping others learn:

...think we are supporting each other to achieve as much knowledge as possible (C1R10)

However, one student rejected the concept outright:

Learning from student postings is an interesting concept by definition. Students are students - there is no way that I know whether what another student says is accurate or a correct interpretation of source material short of chasing them down ... and then corroborating ... Not practical. The facilitator ... does not provide any indication of prior posting's accuracy or content. Therefore, do I accept what a peer student says as truth and rely upon that ... (C1R9)

Thus, some students feel they have nothing to learn from each other, the more so when moderators do not provide robust feedback on answers proffered. There is a conflict here between these students' expectations of a more traditional, transmission-focussed mode of teaching (cf also student respondents' views in Chen, 2010) and the constructivist, student-centred paradigms, informed by adult learning principles and expectations, held by many moderators and suggested by the underlying pedagogy of much online discussion (Jonassen, Davidson, Collins, Campbell and Haag, 1995).

7.3 Shaping the discussion: ENGAGEMENT and knowledge construction

In this section I explore the way both moderators and students shape the discussion so as to be open (or not) to divergent and unanticipated views. I am taking this approach because of the commonsense understanding in education that open questions and wide-ranging discussion assist with learning or the construction of new knowledge, while limited opportunities for unanticipated answers, such as those resulting from IRE patterns (e.g. Nassaji & Wells, 2000), do not provide such support. I note however that tracing the impact of open questions and wide-ranging discussion on knowledge construction as a whole falls outside the scope of this study. Rather, using the system of ENGAGEMENT, I explore the ways in which case study participants expand and contract space for propositional meanings. *Contracting* such space may serve to state or transmit rather than construct knowledge and may close down discussion, in part because of the high interpersonal cost of disagreeing (Martin & White, 2005). Resources which *expand* space for other voices have the potential to facilitate discussion and knowledge construction by positioning interlocutors so they feel able to proffer alternate views.

The role of ENGAGEMENT is examined in this section in three respects: when asking questions, when evaluating responses and when providing answers and summaries (propositional meaning). I describe the prevalence of each of these options in the case study discussions and

theorise the connection between expanding space for other views and the development of ideational meaning. In view of the centrality of engagement to the analysis which follows, the system network is provided here (Figure 7.1) for reference.
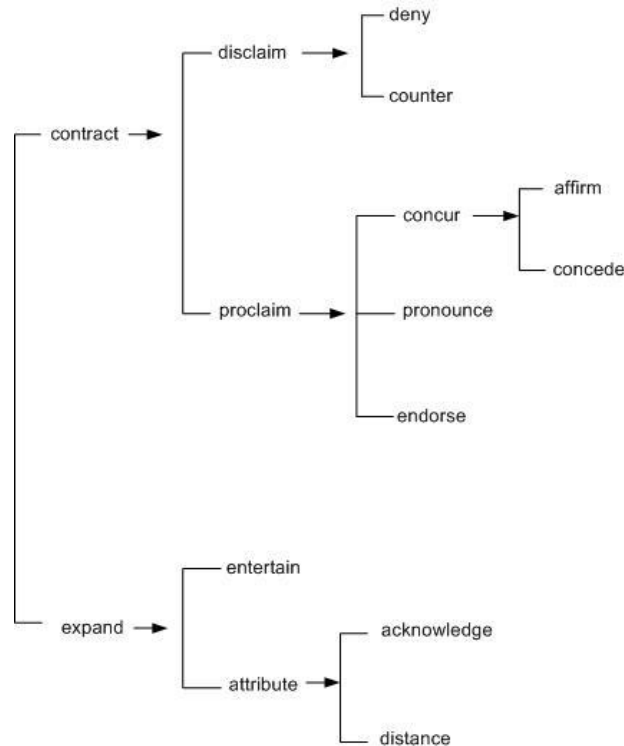
Figure 7.1 HETEROGLOSSIA in the *ENGAGEMENT system [redrawn from Martin and White, 2005, p. 134, realisations omitted]*

7.3.1 Moderators shaping the discussion

Although the agency of students is central to theories of knowledge construction, it will be clear by now that moderators also play a role in all but the most purely constructivist environments. This is in spite of notions of 'democratisation' and moderators' attempts to mitigate status differentials with incongruent instructions and limited visibility in the discussion, as outlined in Chapter 5. In the case study discussions, moderators always make the post which initiates the discussion. Although scenarios and questions are for the most part pre-designed, moderators control the timing of questions, regulate discussant behaviour, guide the discussion, support the community of learners and/or of practice, pose further questions and at times evaluate knowledge. Any analysis of knowledge construction in online environments therefore needs to include a consideration of the role of the moderator.

Asking questions

On the basis of the discussion above, I start from the premise then that, where moderators ask questions which admit of only one, or a very narrow range of answers, this potentially reduces options for divergent or unanticipated responses hence reduces opportunities for knowledge construction by students. Conversely, questions which provide leeway for unanticipated answers enhance opportunities for the construction of new knowledge. This can be probed using the system of ENGAGEMENT, as noted.

When theorising primary and secondary knowers in the system of NEGOTIATION, I have previously proposed that the binary distinction between primary (K1) and secondary (K2) knowers be replaced with the concept of a continuum between these points, with moderators occupying various points along it primarily on the basis of their semiotic self-positioning. This is relevant to the openness of the discussion in that a teacher's position on the K1 – K2 continuum is correlated with the type of questions asked and thus the space left for unanticipated answers and other voices.

Across all cases, most questions are modulated in some way or make other lexico-grammatical choices e.g. downscaled FOCUS and general nouns to expand possibilities for a range of responses. For example:

> *So ... what **might** be the consequences of all health groups boycotting such a process? Any downsides?*

> *What are the **possible** arboviral causes of this illness?*

> *... what **sort** of control actions might be worth considering?*

In some cases, for example the Case 3 initiating instructions and questions, the moderator alternates between congruent and incongruent realisations, with instances of ENGAGEMENT both expanding and contracting space for alternatives, for example:

> *Scenario: Imagine you work ... What **is meant** by harm reduction? What **should be** your objectives in relation to it?*

In other cases, for example the first question in Case 2, the question achieves maximal apparent openness by means of interpersonal grammatical metaphor (incongruent realisations of commands in bold):

> *I would like* for you to think about this. What, if any, age groups are more **likely** to be susceptibnle (sic) to weight gain? **It would be great if you could find** at least one piece of research back to us as a group (sic) and tell us what you have found.

A later question from the same moderator shows similar characteristics:

> *I am just wondering* if anoyne (sic) has found any particular literature about the risk periods for men?

Thus some moderators subtly shift their questions from more to less open whilst others maximise the impression of openness to alternative views.

Opening discussion opportunities or maintaining community?

There may be two related motivations for asking questions in a way that maximally invites alternative views: a wish to promote genuine discussion and/or to maintain a sense of community. This resonates with the maintenance of a sense of community by means of incongruent realisations of instructions, as described in Chapter 5. It follows that questions *apparently* expanding space for other voices do not necessarily allow a wide range of possible answers.

The real and apparent openness of questions is also determined by disciplinary field, pedagogical orientations and student perceptions. In some fields, for example high school mathematics, there may normally only be one correct answer; in others, all responses may be equally valid. Openness may also flow from progressive pedagogies which affirm all personal meanings. Finally, students' 'reading' of the openness of the question may be influenced by their *perceptions* of disciplinary knowledge and its recontextualisation in pedagogical discussion. Issues in public health generally admit of a range of interpretations and solutions. Thus even in the more clinically-oriented topic of infectious disease in Case 1 there is sometimes no *single* correct answer. Students are often confused by this. In the survey component of the present study, one Case 1 student wrote that *medical question always have standard answer to it (C1R2)*. Similarly, the desire for feedback e.g. *Felt unsure at times if I was answering correctly as there was not a lot of feedback (C1R8)* reflects a belief that, at least in some disciplinary areas, questions have definite correct and incorrect answers which the moderator should adjudicate.

The considerations above suggest that care needs to be taken with question wording and the setting of expectations, so that apparent and real openness to divergent opinions are aligned

and interpersonal concerns such as community maintenance do not hinder the development of ideational meaning.

Invited answers

Question wording not only indicates how much space exists for divergent meanings, it also suggests to students how the question should be answered. The discussion question asked by the moderator may suggest, for example, a response emphasising procedures of the field:

> *How might you determine whether there is a problem with antibiotic resistance in the Staphylococcus aureus infections in these patients?*

 or an answer reliant on personal dispositions:

> *The contributions don't always need to be just a summary of results of any study-* **tell us what you think...**

Cases 1 and 3 involve scenarios in which students are asked to imaginatively cast themselves in the role of others, filtering field knowledge through personal perceptions and (imagined) experiences. In both cases, the question toggles between eliciting data and procedures of the field and invoking personal dispositions. Thus for example in C1M6G3, the questions move students from procedural knowledge:

> *How would you investigate the current picture of HIV infections in Wollongong? & determine whether there had been a recent "outbreak"?*

to personal responses:

> *You are invited by the councilors to give a thirty minute presentation on HIV/AIDS. What would be the key components of this presentation?*

and back again:

> *... would somebody like to give us a few lines sumarising the current Australian epidemiology of relevance here?*

Case 3 models a similar balance, with a scenario requiring reference both to external sources and to personal experience and dispositions, although the latter predominate. Case 2 questions suggest an even greater reliance on personal dispositions. Although one piece of research is called for, instructions invoking personal dispositions are more numerous: 'think about this' 'tell us what you think', 'informal comments and replies to other students' and 'brainstorm'. Such questions contrast with assignment wordings, which generally require more objective and less personal responses. This shift towards personal response is repeated in

many aspects of the case study discussions, for example in relation to introduced sources, and I will return to it at various points in the discussion which follows.

Evaluating knowledge and providing feedback

The clash between student expectations regarding feedback on the answers they have provided and the underlying constructivist pedagogy of online discussions is one of the most troubling aspects of teaching and learning in this medium. In the present study, it was clear from survey responses, at least for Cases 1 and 2, that students expected more feedback than was forthcoming, leading to a measure of dissatisfaction.

Moderator evaluation moves in online discussions serve three functions. These are: to evaluate student *contributions* or *effort*, to evaluate the *answers* provided by students and to provide the correct answer or at least a summary of salient points in the discussion. I have extensively documented the first of these in Chapter 5, showing how group rather than individual efforts were evaluated, always positively, using mainly subtly graded APPRECIATION, metaphors and invoked JUDGEMENT, which I described as 'low-impact' evaluation. In this section, I explore how the evaluation of answers, i.e. of ideational meaning, is realised linguistically. This can again be probed using ENGAGEMENT, to disclose whether the moderator evaluates categorically or in a more modulated fashion, the latter leaving open the possibility of divergent views.

The key finding is that by and large there is very little *direct* negative or positive evaluation by moderators of the correctness or otherwise of individual answers in these discussions. Evaluation is almost exclusively indirect and positive and tends to be of group answers. Correct information is provided (if at all) as a comment or summary, largely disconnected from individual answers. This is particularly true of Case 1. In Case 2 (Obesity), the moderator does not evaluate ideational content as such but makes comments and observations of an exemplifying anecdotal nature, allowing the discussion to develop in a free-ranging fashion. In Cases 1 and 2, incorrect, irrelevant or inadequate answers from individuals or the group were either ignored (ie not acknowledged, endorsed or included in summaries) or met with lower levels of AFFECT and APPRECIATION eg *some good* as opposed to *all great* answers.

In Case 3 (Tobacco control), moderators also generally do not evaluate answers as correct or incorrect. They engage with the ideational content of individual and group answers in specific ways. There is one example of complex APPRAISAL:

> *You've identified what I feel is a key obstacle with the prescription-style introduction of ...*

More common are questions to the student, sometimes preceded by an attitudinal appraisal of the moderator's reaction (AFFECT or APPRECIATION) rather than of the contribution. This questioning implies rather than states openly that the answer was wanting in some respect:

> *.... I was interested in your comments about how snus would be distributed and promoted ... Do you envision ...? Would cigarettes then need to be ....?*

Alternatively, new questions are posed to the group in response to the developing discussion, indicating the inconclusive nature and complexity of the scenario.

Evaluation by endorsement

The Case 1 Group 3 moderator is unusual in that she frequently evaluates the ideational content of an answer using endorsement of the group in general or of named individuals:

> **As** several of you <u>mentioned</u>, antibiotic resistance **is** an issue we need to consider.
>
> **As** Ann <u>pointed out</u>, the cost of these tests … **needs to be** considered.

This is a positive if complex evaluative pattern, commonly encountered in written academic discourse. It combines interpersonal meaning (validation of the student(s)) with relations to ideational meaning and represents a syndrome of engagement choices, creating a complex rhetorical structure. It allows for ENGAGEMENT at three points, namely:

1. The <u>endorsement</u> of the propositional meaning, for example *the cost of these tests … needs to be considered*
2. An <u>acknowledgment</u> clause realising ENGAGEMENT involving student projections (for example *several of you mentioned*, *Ann pointed out*)
3. An overarching <u>authorial endorsement</u> (<u>contract: proclaim: endorse,</u> realised by 'As ...') of student answers

What is interesting from a linguistic point of view is the interplay of these different values and how these might be 'read' by students. Does one predominate – the endorsement of propositional meaning, the acknowledgement clause or the overarching endorsement? Or do they read the meaning as an average of all ENGAGEMENT in the clause complex? While positive, this may be too subtle a form of evaluation to provide certainty for many participants. This would reward further research.

To summarise, the evaluation of the content of student responses, where it occurs, is largely positive, indirect and implicit, realised by complex endorsement or questions preceded by

some APPRECIATION of contributions rather than the nature of the contribution. The mode – public, permanent - exerts a strong influence on the type of evaluation of ideational meaning that is possible, resulting in absent or implicit rather than explicit forms. These preserve face as well as community cohesion but, as noted, may be too subtle for many students. In this respect interpersonal concerns have the potential to interfere with ideational meaning-making.

Written feedback in academic contexts

The findings described above resonate with complexities surrounding the provision of written feedback in academic contexts more generally. Feedback has been defined as 'that part of a dialogue that acknowledges, comments on or extends the discussion of academic content or its expression' (Hewings and Coffin, 2006, p. 227). Written feedback is often regarded as 'purely informational ... objective, impersonal and purely didactic' but in reality only effective if it engages with the writer, responding 'to a *person* rather than a script' (Hyland & Hyland, 2006, p. 206, emphasis in original). Thus interpersonal as well as ideational dimensions are commonly invoked.

However, even where the written feedback is provided privately, for example in response to assignments or other written tasks, tension exists between interpersonal and ideational considerations. This is described as a 'recurring discoursal dilemma' (Hyland & Hyland, 2006, p. 207) in which teachers need to maintain 'social harmony' and avoid conflicts with the individual in order to build the trust and cooperation needed for learning to occur (p. 207). At the same time they need to comment on a student's ideational meaning. Students find positive remarks motivating but these need to go beyond simple platitudes. Criticism needs to be mitigated but there are dangers in indirectness: students may fail to understand implied messages (pp. 221-222). These comments resonate with the findings of Mutch (2003), who examined written feedback on assignments and found that modality (avoiding categorical statements), a conversational tone and 'closed comments' (p. 32) and 'musings' (p.33) by the marker (apparently not requiring further action) made for less clear messages. Lower-achieving students may not be well-equipped to deal with these. Where feedback is provided in the public and permanent forum of online discussions (an aspect of mode), these issues are exacerbated.

Providing answers and summaries

The provision of 'answers' lies at the heart of the tension between student expectations to be 'taught', to be given the 'answers', and the constructivist paradigm underpinning much of the pedagogical rationale for online discussions and the teaching philosophy of some moderators, as noted above. The lack of explicit feedback (encompassing evaluation and answers) is one of the most common complaints in the survey responses, with some respondents obviously expecting individual responses. For example:

> *I hope moderator can respones (sic) to everyone's posting, so I can get the feedback from them (C1R1)*

> *Felt unsure at times if I was answering question correctly there was not a lot of feedback. (C1R8)*

> *Again made postings with no direct response from facilitator. (C1R9)*

> *Not enough feedback from tutors. (C2R3)*

> *...very little individual feedback* (mentioned twice) (C3R3)

Some comments were more positive, for example:

> *... on the whole, the other moderators provided feedback. ... I think consistency and regularity of feedback aids in a flowing discussion.(C1R5)*

Although it may not sit comfortably with constructivist paradigms, students wanted and appreciated summaries, correct answers and certainty:

> *It was good when the moderators summarised the discussions at the end with the key points, (C1R16)*

The way in which answers and summaries are provided, in other words the way moderators' knowledge is brought into the discussion, is just as critical to its nature as the way questions are asked and responses evaluated. If moderators state propositional knowledge categorically, this limits opportunities for further discussion and unanticipated answers, while expanding space for other views enhances opportunities for open debate and 'knowledge construction'.

Answers and summaries were provided in variable ways across the case study discussions. In Case 1, the Group 3 moderator was assiduous in providing answers in single statements or periodic summaries of salient points ('weaving', eg Salmon, 2003, p. 194-6) or consolidating, giving students something concrete to take away from the discussion and to serve as a

jumping-off point for further discussion. She toggles between proposals and unmodulated and modulated statements, with the latter predominating overall, for example:

*For determining the extent of ... there **are** several options:*

1. If ...you could ...

*2. You **could** survey ...*

*3. You **could** look at...*

*4 ... there **are** a number of special studies ...*

*Awareness of the campaign or intervention isn't too hard to measure - phone surveys etc. to measure prompted and unprompted recall **should** work. (Module 6)*

There is a slight tendency to categorical statements, but these are not (too) controversial in this context, thus do not threaten solidarity.

*The majority of transmissions in Australia **are** from MSM contact ...*

*There **has** also been a recent rise in infections attributed to "safe-sex" fatigue.*

In some instances the moderator strongly contracts space for negotiation around a propositional claim by proclaiming a position:

*... the focus **needs to be** on transmission and data that demostrates the effectiveness of NSPs and legislation of CSWs.*

*There is **definitely** evidence of men who are HIV negative having intentional unprotected sex with HIV positive men*

In other words, the moderator commits, sometimes strongly, to certain value positions and appropriately closes space for negotiation by strengthening a particular propositional meaning.

In **Case 2**, a week and 65 postings pass without a moderator summary, indicating that she has chosen a 'hands-off' facilitation style. However, the next six days sees a brainstorm about definitions of gender which sees her keeping track of the definitions provided (with a progression from categorical to modulated statements in the following):

Sex is biological and gender is social. (Post 72)

Gender can also be how we are socialised into different roles.(Post 86)

So is gender perhaps the innate sense we are born with, and gender roles are learned? (Post 89)

Apart from this, her comments and anecdotes do not scaffold ideational content but show a strong (inter)personal orientation, with references to her mother, her school canteen and her relations to chocolate.

The argument in **Case 3** (concerning harm reduction) is extremely subtle, and not one that lends itself to easy answers. Moderators tended to ask probing questions to initiate further reflection, as noted above; where information is provided it is either factual or based on professional experience, with one opinion post (93).

Overall, moderators tend to keep the discussion open to other views and voices, with only some of them closing it down, albeit temporarily, to provide a content summary before opening it up with the next question. Again the potential exists for interpersonal concerns (open debate, maintaining community) to disrupt ideational meaning-making.

7.3.2 Students shaping the discussion

Students also play a role in shaping the nature of the discussion in the extent to which, and ways in which, they ask questions, provide answers themselves and evaluate each others' answers.

Content-related *questions*, both genuine and rhetorical, posed by *students* also serve to shape the debate. Students' genuine questions such as these:

> *I heard that most mosquito bites do occur around dawn and dusk. I am just wondering whether this applies to all insects/mosquitoes, or does this only apply to certain species of mosquito? Does anyone know?*

> *I'd be interested if others think that this might be a way for ...*

cast other students in the K1 rather than K2 role, tapping into the distributed knowledge of the group and potentially facilitating collaborative knowledge construction. Rhetorical questions are asked not in expectation of a definitive answer but 'are employed to raise the possibility that some proposition holds' (Martin and White 2005: 105), presenting one possible view of the situation; as such they represent one of the choices available in ENGAGEMENT, namely expand: entertain. For example:

> *Is there sufficient, scientifically sound evidence for possible harm reduced products? (raising the possibility that there might not be, combining a rhetorical question with counter-expectancy)*

Sometimes rhetorical questions appear to serve to structure answers or to give the writer the opportunity to answer them:

Why are younger people increasing in weight at a greater rate? Environmental factors seem to play ..

Such student-generated genuine and rhetorical questions are not common and as such provide limited evidence for the 'democratisation' of participation in these discussions. Comparative studies are needed to determine whether these shifts from K2:A2 to K2:A1 (initiator of questions) and K2: A2 to K1:A2 (responder) are more common in online than face to face environments in the same disciplinary and pedagogical contexts.

Students rarely *evaluate* the correctness or otherwise of their peers' answers, although they do on occasion evaluate their peers' efforts, using the resources of APPRECIATION and JUDGEMENT. This provides limited support for notions of democratisation.

Students also structure their *answers* using resources of ENGAGEMENT: expand and contract to open up or close down space, respectively, for negotiation of alternate views. In terms of the ENGAGEMENT network, the only option for **expand** is **entertain**; is realised with a wide variety of linguistic resources, including modality, circumstances of acknowledgment, mental and verbal projections, 'appearance-based' postulations and rhetorical or expository questions. This is a significant feature of the discussions studied.

Case 3 is used as an example. In P25, Anh writes (examples of <u>entertain</u> in bold):

> *It is an interesting point you raise about the impact that **might be possible** on communities with high smoking prevalence ... it **seems to me**, if we must go down the path of investing in harm reduction, then these are the populations we **could** target in the first instance...*

Anh balances modality with categorical statements (*is, are*), but these are statements her peers would probably agree with, so they function to build alignment rather than alienation. The modality in P60 leaves a lot of room for alternatives to this fairly controversial suggestion:

> *– **I think** that there **may** be tremendous value in this form of distribution. ... **Perhaps** the government **could** look at classifying smokeless tobacco products (such as Snus), as a form of treatment for tobacco addiction, ... Channels for licensed distribution already exist .... **Perhaps** these outlets **could** distribute Snus...*

Little use was made in Case 3 of the resources of <u>contract</u>. There were a few instances of <u>contract: disclaim: deny,</u> for example:

> *with ... something so new to our culture it is **impossible** to tell how it will be accepted or rejected.*

Counter is more frequent than deny in Case 3, perhaps as a result of the complexity of the argument concerning harm reduction:

> *__Although__ the government has mandated consultation with the industry - it doesn't have to go much beyond that.*

> *I also think the channels for consultation should be open - __but__ cleverly managed.*

There are limited instances of **concur: affirm**, which strongly contracts space for alternate views:

> *__Of course,__ you can't promote snus as "health beneficial".*

and of the pairing of **concede** (*however*) with **affirm** (*clearly*):

> *Any form of tobacco __clearly__ presents with a certain degree of uncertainty on one's health. __However,__ with Snus the Benefits seem to outweigh the Risk....*

Likewise there is little evidence of **pronounce**; where present, it is in contexts other students could be expected to align with the anti-Big tobacco message :

> *They are __indeed__ powerful organisations with vast resources ...*

To summarise, Case 3 student discussants demonstrate nuanced management of the resources of expand and contract, with the former predominating (entertain) and multiple instances of categorical statements for which writers (probably correctly) assume peer agreement. There are few instances of *contract*, which would stifle debate. Writers are open to alternate views, fostering debate and potentially knowledge construction as well as community. The other cases also exhibit similar levels of toggling between resources of expand and contract, with expand perhaps a little more prominent, indicating that students understand the need to convey ideational meaning whilst maintaining interpersonal harmony.

A small number of *students* took it upon themselves to provide summaries of the discussion to that point, in other words providing the 'weaving' that Salmon (2003) recommends moderators undertake. For example, in C2 Liiqin writes:

> *Focusing on the question by Sally for us to brainstorm .... I would like to help summarizing the discussion and articles gathered from our online discussion classmates.*

Role reversals such as these were not common but again their presence might lend some weight to the claim that participation in online discussions is more 'democratic' than in face-to-face contexts, although this would need to be empirically tested.

7.3.3 Contributions to shaping the debate

The preceding sections explored how both moderators and students set conditions for knowledge construction, theorised as *expanding* rather than contracting space for other voices, values and meanings. This was explored under the headings of asking questions, evaluating answers and providing information. Thus moderators expand this space by asking questions which admit of multiple responses rather than single, anticipated answers, by modulated and generalised evaluations of answers and by providing answers and summaries in ways which similarly leave space for alternatives. Moderators on occasion also ask unmodulated questions and provide answers in ways which contract space for alternatives, thereby aligning themselves with certain value positions and confirming propositional meaning. Thus facilitating knowledge construction consists of a nuanced balancing of the ENGAGEMENT resources of expand and contract, closely aligned with the intention of the learning activity, the disciplinary field and other contextual factors. The proportions varied between discussions, with C1G3 and the Case 3 initiating posts generally showing more *contract* than Case 2, in which the resources of expand were far more commonly deployed by the moderator. In addition, community maintenance may have been a factor in decisions to expand rather than contract space for other voices in all cases.

Thus while consistently contracting space for alternative views might be expected to stifle the negotiation of ideational meaning, a range of issues emerges where such space is consistently or inappropriately expanded. Amongst these is the issue of question wording. The possibility exists for questions to be asked in an apparently open way, resulting from the desire to stimulate knowledge construction and/or interpersonal considerations, whereas they do not in reality admit of a wide range of responses. Further, question wording invites a certain type of answer, featuring for example procedures and content knowledge or personal dispositions, experiences and opinions. Case 2 demonstrated more of the latter, emphasising the personal, with repercussions for other features of the discussion, as I argue below. Openness without certainty in the evaluative phase does not provide some students with the resources they need to reliably construct knowledge, as noted in student responses to survey questions. This particularly applies to those students whose educational dispositions or professional practice favour stronger direction and greater certainty. From a pedagogical point of view, the implicitness noted here resonates with Bernstein's (2000) concepts of weak framing and competence-based and progressive pedagogies, which advantage certain classes of learners.

The issues surrounding the evaluation of student responses resonates with those surrounding feedback on student academic writing, although they are exacerbated by the mode, particularly its public and persistent nature. Feedback is sometimes contained in complex endorsement patterns or avoided altogether. This is an entirely understandable attempt to avoid having students lose face, but alternative methods of providing feedback are needed. Where answers and summaries are provided, these toggle appropriately between modulated and categorical statements, but when the resources of <u>expand</u> predominate, the potential exists for student uncertainty. Thus the implicit, 'low-impact' nature of moderator activity generally in these case study discussions resembles the 'low-impact' instructions and evaluations identified in Chapter 5, which served to maintain in that instance positive relationships in a community of learners.

The potential for a more equal relationship between 'teachers' and 'taught' to arise in online discussions ('democratisation') is welcomed by most commentators, as noted in Chapter 2. Such equality can be achieved by moderator semiotic self-positioning towards the K2 end of the continuum as well as low-impact evaluation and modulated presentation of information. It may also result from students temporarily taking on roles normally associated with moderators. However, I note that the tendency take on such roles was not uniform across cases: limited in Case 1, somewhat more common in Case 2 and more pronounced in Case 3. This alerts us to the fact that student perceptions of the role of moderator may not be uniform: while some might be happy to post a reply to a moderator question or add a few facts to a thread, apparently accepting the moderator's K1 role, others may feel that they are on more of an equal footing with him or her. However, it is not clear to what extent such equality might assist with knowledge construction. Democratisation has the potential to inhibit learning and provoke dissatisfaction for students who crave more certainty, clear answers and judgements concerning correctness of responses,.

Thus the key issues arising from these findings are the implicit, low-impact nature of much of the questioning, evaluation and provision of answers and the need for participants to finely balance the interpersonal requirements of the discussion with the development of ideational meaning, lest the former disrupt the latter.

Advice to designers and moderators needs to take into account the variability in contexts and the fact that, in some cases, the impact of the mode precludes a definitive solution. However, some general guidelines can be derived from the exploration above. The findings to this point suggest that questions which admit of only one or a small number of answers would be best

addressed by activities other than discussions, for example by an online quiz. Students should be oriented to the nature of knowledge in the field, namely how much leeway really exists for unanticipated and divergent answers. Moderators should ensure the question asked is congruent with the required response in two senses: openness and the type of answer required (procedural, content or personal). Evaluation needs to be positive and supportive but not at the expense of clarity concerning meaning. The sensitive matter of feedback on misconceptions could be handled off-line, although this may still be awkward and may have workload implications.

Although an exchange which maximises space for all voices is conducive to knowledge construction, there are points in the discussion where it needs to be brought back on track (for example when the Case 2 discussion veers off on tangents unrelated to age periods linked to weight gain). There are also points (e.g. the end of threads) in some discussions where correct answers or summaries need to be provided and are expected, for example correct procedures for investigating an outbreak. In cases where the questions and topics admit of an 'answer', moderators could be encouraged to provide answers and create summaries at the conclusion of a thread or topic; such summaries can usefully be created by students where a focus on the moderator is felt to be inappropriate. However, there will still be some loss of face for students whose answers clearly contradict the summary. In other discussions, where there are no correct answers and a summary is not feasible, students should be oriented to this possibility. Perhaps more generally, these postgraduate students need to be persuaded that there is less certainty and more ambiguity at this level than in undergraduate studies, although cultural and educational differences between students will need to be addressed.

7.4 Bringing external sources into the discussion

Sources from outside the discussion are brought in to help construct knowledge, or provide a basis for knowledge claims, to varying extents in the case study discussions. External sources can be textual (e.g. published research papers) or human (e.g. experts). Such sources are brought in because their use is suggested or mandated by the question and/or because students are responding to an unfamiliar genre by using familiar strategies, such as citing or paraphrasing from print sources when writing or quoting experts in tutorials. Moderators also bring sources into the discussion but at a much lower frequency than do students. In this section I undertake a brief quantitative survey of external information sources (Section 7.4.1) before examining the relationship of the writer to these external sources (Section 7.4.2).

7.4.1 Sources: types and distribution

The tasks set and questions asked establish expectations concerning the type of resources that should be brought into the discussion. Thus a question may suggest reliance on personal dispositions, as noted above, or it may mandate or suggest reliance on specific field-related procedures or the research findings of others. In this section I summarise and discuss quantitative data on the sources of information brought into the discussions.

For Case 1 (Infectious disease), the scenario did not specifically suggest searching for external sources, although this did occur; the response to the scenario was mainly to be based on the online lectures and readings provided, which focussed on the procedures of the discipline. The question for the Case 2 (Obesity) Week 1 discussion asked students to summarise a piece of research and add opinions and informal comments. In other words, the question mandates a balance of published sources and personal commentary. In the Week 2 *brainstorm*, students are asked to contribute personal ideas; the *research and discussion* activity more overtly requires external resources. In Case 3 (Tobacco control) the initial question directed students to specific resources, including two speeches, meaning that the use of external sources was specifically encouraged. Reference to these prescribed sources started at high levels but dropped off while reference to peers as sources of information and opinion increased as the discussion progressed. The analysis of sources used sheds light on what is considered appropriate to the context by both parties. It can be seen that the sources are both external to, and within, the discussion cohort. The basis for sampling and the full numerical and interpretive analysis is available in Appendix 7. Table 7.1 summarises the numerical findings to provide for each case the students' main and secondary choice of sources and the moderator's main source (two weeks' data are provided for Case 2 as the first week was atypical).

	Case 1	Case 2 Week 1	Case 2 Week 2 Brainstorm	Case 2 Week 2 Research and discussion	Case 3
Students' main source	General research and procedures	Published documents	Published documents, professional experience equally	Published documents	Peers
Students' secondary source	Mixed across groups	Peers and personal experience equally		Professional experience	Published documents
Moderator 's main source	Procedures	Personal and professional experience	Personal experience	Personal experience	Professional experience

Table 7. 1 Summary of main sources for students and moderators

The variation in source types used by students appears to result from task design, questions and specific instructions intersecting with field while moderators tended to rely on personal and professional experience rather than on textual sources. They generally did not comment explicitly on student use of sources, instead their approval of source types was implied in their general evaluation of posts.

7.4.2 Citing external sources

Bringing a source of information into a text or discussion implies an attitude to it. This starts with the very act of using an external source at all, and selecting one source rather than another, and extends to the way the source is introduced into the discourse. The latter involves self-positioning with respect to the value position in the source, as suggested by ENGAGEMENT theory (Martin & White, 2005). Having shown which source types were preferred by students and moderators, I return in this section to examine the way in which the sources are brought into the discussion. This covers the way they are cited in the text, including what is foregrounded in this process, and what evaluative stance the writer takes up with respect to the source (Martin & White, 2005).

External voices may be brought into a written academic text, for example a research paper or essay, in a wide variety of ways. Case 3 reflected this variety, with a large proportion of

sources being cited in standard academic formats. This included integral and non-integral, prospective and retrospective citations, with concomitant foregrounding and backgrounding of authors or knowledge, for example:

> **Stratton et al (2001)** *describe 'a product as harm reducing if...*
>
> *Although low nitrosamine smokeless tobacco (LNST) products may cause less health harm than traditional cigarettes, they still cause greater harm than no tobacco exposure **(Giovino 2004).***

The process of researching or the artefacts of research are fore-grounded:

> **There is a growing body of evidence** *which shows that ...*

Hood (2010) theorises such patterns as the field of research *projecting* the field of the object of study (p. 135), as noted in Chapter 6. The field of research can include both the voice of the writer and the voices of named or unnamed researchers (Hood 2010, p. 182).

Projection can be realised grammatically in a number of ways (Hood, 2010, pp. 132-134), for example:

> *The Cancer Council Australia **reminds** us that ...*
>
> **According to Stratton**, *K "a product is harm reducing if ..."*
>
> *... as **outlined** by the Draft Australian National Tobacco Strategy ....*
>
> **The article by Martin, Warner and Lantz** *(2004) also suggests*
>
> **The researchers** *found that among men who ...*
>
> *There appears to be **conclusive evidence** that ..*
>
> *The **rhetoric** that they use ...*

Teasing out projection in this way makes clear who is implicated in propositions and values and allows us to compare ways in which other knowers in the discourse and their contributions are represented (Hood, 2010, p. 182). By and large, Case 3 students demonstrate a balanced use of standard academic forms, although those used in other cases tended to diverge from these, as I show below.

7.4.3 Relations to external sources exemplified: Case 3

An investigation using ENGAGEMENT analysis can show whether writers are strongly committed to the value position represented by the sourced ideas, in which case they will use ENGAGEMENT resources which *contract* space for other voices in endorsing that proposition. Alternatively, it can indicate whether they show no commitment or even distance themselves from the ideas

represented, thus leaving room for other opinions and maintaining solidarity with those who have opposing views. The ENGAGEMENT resources of *expand* are used to achieve the latter. The options for expanding dialogic space around an introduced source are <u>expand: attribute: acknowledge</u> and <u>expand: attribute: distance.</u> The former is generally realised using verbal and mental processes enabling projection, as in these examples from Post 55:

> *The article by Martin, Warner & Lantz (2004) also **suggests** that ...*

> *Martin, Warner & Lantz (2004) **conclude** that ...*

Distancing is usually achieved using *claim:*

> *... industry representatives continually **claim** that they aren't interested in persuading children to smoke ...*

On the other hand, the formula ***As** Stratton (2001) suggests*, previously encountered in moderator feedback, represents strong authorial endorsement (<u>contract: proclaim: endorse</u>) hence support for the proposition, contracting space for alternatives. In the following example, *shows* realises the same choice: the writer fully supports what the evidence shows (strengthened by the use of GRADUATION in *'growing'*):

> There is a **growing** body of evidence which **shows** that ...

Across those Case 3 posts in which standard ENGAGEMENT is found, writers tended to toggle between <u>expand</u> and <u>contract</u> with respect to sources, appropriately affirming value positions or leaving space for others, supporting the developing community.

However, while many of the examples discussed above would be at home in an academic paper, some aspects of Case 3 posts diverge from academic writing. As I showed in Chapter 6, strong negative judgement features as part of the moral or axiological alignment of the community of practice being discursively constructed in this discussion, and serves to build solidarity. In addition, some posts feature forms of reference to published texts but do not feature in the ENGAGEMENT system. For example, the source may be introduced as part of a narrative. In the example below the delivery of the speech (and the speaker) is fore-grounded over its content. The formulation 'delivered a speech' below gives no indication of the writer's attitude towards that speech, although the negative JUDGEMENT in the following clause perhaps does clarify this:

> *When David Davies (a senior Philip Morris executive) **delivered a speech** at the National Press Club in Canberra in March 2005, he pushed his (and inadvertently the tobacco industries) agenda for the reintroduction of smokeless tobacco products ...*

Finally, there is an apparent tendency for web sites and organisations (and for Case 2, media personalities) to project the field of content to a greater extent than usual in academic texts.

> *The Cancer Council Australia (2007) reminds us that "there is no such thing as a safe cigarette ....*

This greater variety may be due to the fact that students are here referencing not only research but also the activities of public health, for example investigation and communication. Spoken forms perhaps exert an influence.

7.4.4 Relations to external sources in Cases 1 and 2

Students in **Case 2** also made considerable use of external (published) sources: these represented 44% of all sources used, in line with the discussion starter. There are some examples of citation, for example a non-integral (and non-standard) citation in P8:

> *playing outside is forbidden by many parents (Gomez et al – 2004 "Violent crime and outdoor physical activity among inner-city youth").*

an integral citation in P12:

> *the Australian Bureau Statistics (ABS) media reported 54% of Australian adults were overweight or obese*

and some ENGAGEMENT with respect to sayers:

> *Allman et al believes*

However these are in the minority. The overwhelming majority of posts foreground an artefact of the research: the study, article, review or report, for example:

> *... study showed*
>
> *... article by / article relates to / article backs up / article looked at article raises some interesting questions and suggests ...*
>
> *... information in the article*
>
> *There is quite a comprehensive review of current literature ... . It reviews*
>
> *It (website) states .. it is reported (on web site)*

Researchers as group are introduced:

> *Authors reported... took surveys ... concluded*

Alternatively the post toggles between citing product and producers, as in P23.

The proportion of such reference, de-emphasising research and the researcher, is higher than that normally encountered in academic writing. There are many possible reasons for this. Although standard citation draws on written models, this type of referencing which emphasises artefacts may be influenced by spoken models such as tutorial participation. Possibly students were unsure how to interpret the moderator's ambivalent instructions concerning citing specific research and shied away from standard referencing, and/or simply felt it inappropriate to cite formally in a discussion context. This represents a weakening of stance with respect to sources.

There are some examples of media personalities and academics rather than published texts being introduced as sources in Case 2, narrative in style and largely without appraisal, for example:

> *At the DAA Obesity Epidemic summit 2004 Tim Gill, said that putting on ... Driving to work yesterday morning, I heard the minister for health on the radio commenting...*

The moderator follows suit:

> *Did anyone see Jennie Brand-Miller being interviewed yesterday ...*

Ideas are sourced from print and television media:

> *Another article in this sunday's paper looked at ...*

> *Hey I was watching the news and there was this segment about ...*

This type of sourcing, which did not feature in the remaining discussions, appears to be strongly influenced by conversational forms.

In **Case 1**, reference was more likely to be made to the procedures of the field or general research; few sources were cited but where this occurred they were almost exclusively non-integral quotes cited in Vancouver style or lists of sources with no connection with cited text. Thus content is consistently fore-grounded over knowers.

7.4.5 Patterns of relations to external sources

This section has looked at resources, mainly textual, brought into the discussion under three headings: what was brought in, how it was cited in student texts and the attitude of student writers to these sources. This section contains a summary of findings followed by a brief discussion of pedagogical implications.

Sources brought into the discussion

Sources used were generally congruent with the question asked and the disciplinary field. For Case 1, this meant general research and procedures; for Case 2, published sources. Interestingly, Case 3 was the only discussion in which peers formed the main source, ahead of published research, indicating a more intense engagement with each others' ideas and potentially higher levels of inter-subjective knowledge construction. Another key finding is the relationship between sources brought in by the moderator and those proffered by the students. In Case 1, Group 3 these were congruent; in Case 2 there was a marked asymmetry, in that students primarily reference published documents while the moderator references her experience, predominantly personal rather than professional. This suggests that she is not modelling the evidence-driven discussion which was intended. Further, where such asymmetry exists, the moderator does not model the way she would like to have external sources introduced into, cited or engaged with in the discussion, leaving students to develop their own modus operandi.

Citing sources

Implicit in the analysis reported on above is a comparison between referencing and engagement in written academic texts and online discussions. There are marked differences between the three cases in the way sources were cited, resulting from the discussion tasks set but also contextual factors such as the moral crusade against Big Tobacco in Case 3. In Case 1, field knowledge is consistently fore-grounded over knowers. Case 2 participants fore-ground the artefacts of the research rather than the researchers and also make narrative-style references to people and media external to the discussion, drawing on spoken-like models. The approach taken is descriptive rather than evaluative. Case 3 exhibits more 'standard' (with respect to research papers) and evaluative referencing than other cases but also a slight tendency towards narrative and levels of negative JUDGEMENT which are not generally found in written academic texts.

Attitude

In terms of attitude, students use ENGAGEMENT to some extent to enact a stance towards the sources they are referencing, particularly in Cases 2 and 3. For example, in Case 2 there are some instances of 'standard ENGAGEMENT', for example contract: proclaim: endorse (e.g. *the study shows*) and expand: attribute: acknowledge (e.g. *it states, article ... suggests*). There is also some evidence of listing steps undertaken (GRADUATION) in order to enhance the research

claim (Hood 2010) (*Authors reported... took surveys ... concluded).* However, the overall impression is of a more descriptive or narrative approach (*article relates to, information in the article*) than would be found for example in a journal article. In addition, in Case 2 more use was made of low-vigour evaluative choices (Hood 2010: 92) such as *looked at.* In Case 3, as noted, much ENGAGEMENT used would be at home in a journal article, but a narrative approach is also encountered.

Comparison with written academic texts

The discussion texts show a drift away in several respects from standard academic writing as found in published research papers with respect to the types of sources brought into the discussion, the forms of citation (a tendency to reduce the visibility of research and researchers and foreground artefacts of research) and forms of ENGAGEMENT (a predilection for descriptive and narrative approaches and low-level evaluative choices). This is reminiscent of the low-impact appraisal choices made in support of the community of learners (outlined in Chapter 5). It may be that descriptive or narrative approaches are chosen avoid taking a stand, and foregrounding artefacts rather than research or researchers serves the same purpose.

A drift of this kind is perhaps to be expected in online discussions, for several reasons. One of these is their nature as mixed texts combining features of spoken and written texts: forms of ENGAGEMENT and citation which would be at home in a written academic text may not seem appropriate in this context. Spoken forms such as tutorial participation may be models for foregrounding artefacts and low-vigour evaluative choices. The personalised approach elicited in the questions may also be a factor. Finally, the apparent desire to maintain interpersonal relationships and a sense of community (of whatever kind) makes for low-impact evaluative choices, as shown in Chapter 5.

Pedagogical implications

It is clear that participants in the discussion, both students and moderators, are, through their language choices, dynamically and creatively constructing a new genre leveraging centripetal (reliance on known genres and strategies) and centrifugal forces (a new blending of these in mixed texts). However, an issue which has been raised previously is relevant here: if some students have not been exposed to these genres and do not control them, and the genres are not explicitly taught or at least modelled, such students will be disadvantaged. Further, if online discussions are intended to be in any sense an apprenticeship into nuanced forms of argumentation and valued ways of writing, the drift from standard practice is of concern.

However, this may be a Faustian bargain that educators are willing to make, to leverage the social benefits and contribution of personal and professional experience that contributors can bring to the discussion.

Pedagogical implications for moderators include ensuring the question asked is congruent with the resource types students should use. Where moderators do not use external sources, they do not model the evidence-driven discussion which was intended and the opportunity is lost to model ways of referring to introduced sources. Students are left to develop their own modus operandi.

7.5 Working with peers to construct knowledge

In online discussions such as those in the case studies, students reference and work not only with resources external to the discussion but also those which are part of the same 'conversation' - the posts and ideas of fellow students and moderators. I will consider this activity under three main headings: first, the overt acknowledgement of the ideas of others, second, the re-use of content provided by others and third, critical engagement with their ideas. I describe and exemplify these in turn in the sections below.

7.5.1 Acknowledging others as sources of information in the conversation

It appears that the requirement for 'interaction' (present in assessment rubrics, suggested by moderators and essential to community) has been interpreted across all three cases as a requirement minimally to acknowledge and link with the ideas of others and less commonly to evaluate them or take up a stance towards them. A clear tendency for evaluations of peers' contributions to feature what I termed (Chapter 5.3) 'additive' comments and expressions of agreement, rather than AFFECT, APPRECIATION or JUDGEMENT, is evident here.

In Case 1 (Infectious disease), a large percentage of student posts do not overtly acknowledge the ideas of peers at all. Where they do so, such acknowledgments are usually quite perfunctory and may be of the whole group, with the writer moving quickly on to personal opinions:

> I agree with what everyone has mentioned before. I think ...

> I would agree so, because ...

> I fully agree with everyone's posting of these two questions, I just want to make up a point.

Some of them are purely additive without agreement or evaluation:

> *To add on to Lee's points I would also be interested in knowing...*

> *Just to add a point to the the ideas above ...*

> *I would add a few points to Student qq's.*

or include both:

> *Just to add onto Student nn's suggestions I agree we should continue ...*

Very few are evaluative:

> *I think Student p made a important point* (appreciation)

> *As Student nn pointed out,...* (authorial endorsement)

In Case 2 (Obesity) there is likewise evidence of simple agreement with others, with perhaps more acknowledgement of the content of their posts, followed by own opinions, for example.

> *The comment about requiring specialised equipment for bariatric patients reminded me...*

> *Also in reply to Student R's query on why older people lose weight, another smaller factor may be..*

> *I agree with Jim and the previous posts, it is much harder to ...*

In Case 3 (Tobacco control) there appears to be a greater level of engagement with the ideas of peers than in Cases 1 and 2. Thus, from posts which reference peers, a range of strategies can be observed, ranging from merely additive comments:

> *This relates to Anh's post on 10 August .....*

> *Just a quick comment on Mina's point...*

to agreement without overt evaluation:

> *I agree with Student D in the sense that ..*

> *I'm with Student E on this one ...*

> *I think I share the same viewpoint as Student D and Leo...*

to APPRECIATION:

> *I think you raise a good point there Anh about targeting ...*

> *Hi Caroline,*

> *It is an interesting point you raise ...*

to more complex interactional patterns:

> *I must say that I certainly echo the sentiments shared by the rest of the discussion group.*

> *Just to reflect on what has already been discussed thus far.*

The evaluation phase also occasionally includes complex and simple ENDORSEMENT. For example:

> *As Kathryn highlighted …*

> *As we have seen in the discussion so far …*

> *As Leo has mentioned*

Students use this pattern of authorial endorsement less than do moderators and may well be drawing on models of written academic texts. There were virtually no instances of other forms of ENGAGEMENT targeting peers' ideas.

Thus little use is made of ENGAGEMENT resources to evaluate the ideas of others, but instances of additive and agreement-type linking are numerous across all cases. This may be a feature of spoken language which has been co-opted. Agreement of this type was noted in Chapter 5 as a promoter of community cohesion amongst learners since it affirms peers. However at the same time it foregrounds personal dispositions and mental processes, for example agreeing, thinking, reflecting and 'echoing sentiments', which I have termed 'personalising'. It avoids evaluative language and does not take a stance.

7.5.2 Foregrounding own activity

The realisations of agreement with peers noted above lead us to consider the personal involvement of the student in all aspects of linking to and working with the ideas of others, present or not. The first group of examples below (From Case 3) references published sources but also highlights the writer's mental processes of evaluation, as noted above. This formula can be found in contemporary academic writing but resonates more with spoken forms or informal academic exchanges such as email. It is personalised (contingent on the writer's subjectivity) but given that it overtly supports the position, could also be regarded as a form of endorse:

> *I **agree** with **Stratten et al., (2001),** that smokers have the right to be aware of supposed 'lower risk' products …*

> *I **do agree** with **Chapman** 's concept of licensing all smokers, a system were smokers could renew their license annually **(2).***

In this slightly different example:

> *I want to share* this interesting article which points out an increased likelihood of stop smoking using snus.

the writer personalises the relationship to the source by foregrounding his own volition and appropriate online discussant behaviour (*want to share*) and APPRECIATION of the article (*interesting*) together with the ENGAGEMENT (*points out*, <u>contract: endorse)</u> in the dependent clause. Similarly in the example below we find a form of overtly personalised attribution combined with APPRECIATION perhaps more at home in a face to face tutorial. Given the up-scaled positive APPRECIATION (*highlight*) may discourage alternate views, this is perhaps closest to **endorse**.

> *I have to say that the highlight* of my reading was the "Swedish Experience" (Chapman et al 2007 & Foulds et al 2003).

Formulations such as this (with links to spoken language) do not position the writer directly, with respect to the object of study. It seems to be more a case of the writer positioning him/herself with respect to the process of researching or communicating research to others, displaying characteristics of a virtuous online discussant rather than researcher (i.e. recontextualising rather than doing research) with added APPRECIATION. Perhaps this can best be interpreted in the light of Hood's concept of the field of research projecting the field of the object of study. In this case the writer first projects the field of research, thereby adding an additional layer. Thus in the first sentence above, *I* projects *article* which projects *increased likelihood* of smoking cessation.

Metacomments on the process of researching the topic and contributing to the discussion occur from time to time in Case 3:

> *Sorry, I realise that I haven't taken a clear line on this issue, but thought I'd shared my thoughts anyway.*

> *...more thoughts later....*

> *I will continue considering this scenario and post back later.*

In **Case 2**, the personalising tendency noted above – the intrusion of the student's own activity, feelings and reactions – is also present. First, AFFECT and APPRECIATION reflecting the writer's sensibility are quite common, almost always expressed in terms of interest, rather overworked in this discussion:

> *.. interesting part in this article was ...*

> *...interested me ...*

Second, students frequently foreground their own activity as researchers and virtuous online discussants, as in the following metacomments:

Reason that i had chosen this article is because i find that ...

In the article I noted ...

Through knowledge and research I have come to understand ... I have found ...

I find it very interesting that I went and looked for some research prior to reading on others had put in this discussion. After finding an article .. [cited] ... I see that others found interesting articles that link to mine.

I will continue to review the literature ...

I also found in my research ...

This tendency to foreground personal 'research' activity and metacomment is less pronounced in Case 1, as in the examples below from selected discussions. There are a small number of instances of focus on personal research and communication activities:

I found an interesting article on WA - "Disease Watch - January 2008 edition.

I would like to share pieces of information for the question 1

There were rather fewer metacomments than in Case 2 as students negotiated the online discussion modus operandi:

... i will keep this very brief because there are many of us in the group. i will answer a part and maybe someone could continue it.

I don't want to repeat the same words ...

Some of these answers may have been provided, however I will also add my thoughts.

I may as well talk about how we could determine whether ...

Personal 'research' activity and metacomment were more common in Group 3

An interesting thing i found out is that there is a growing trend ...

I cannot find any evidence to support this ... from my research.

However, I have provided you with some links to articles ...

And two metacomments, both from Lee:

I raised some questions on Tuesday. Since they are no takers I am going to look into them myself...

Like Student ee, I have already done my two original posts, so I can't post. Can anyone else

contribute? Question 5 is a great question for discussion.

The issue of the intrusion of overt subjectivity, in other words the 'writer as knower' (Hood, 2010, p. 198), in academic texts has been mentioned earlier, as has the fact that researchers are increasingly making 'first person pronominal reference to themselves' (Hood 2010: 198), although this varies between disciplines. For Hood's corpus, the presence or absence of the writer as knower is pertinent to their 'locus in relation to the object of study' (p. 199). Subjectivity is visible in all case study discussions. However, the 'personalisation' encountered here goes far beyond first person pronominal reference. It foregrounds the writer's dispositions, attitudes and activity and as such strengthens interpersonal meaning at the expense of ideational. Further, it reduces opportunities for taking an evaluative stance in that the writer projects the field of research in a narrative sense, exacerbated when the artefact rather than the researcher is foregrounded, for example:

In the article I noted ...

Whatever the reasons for this tendency (which could range from a desire to maximise marks to an unwillingness to take on an academic identity), the effect on structuring academic discourse and argument which includes and requires nuanced evaluation needs to be considered. Additionally, as Coffin and Hewings point out (2005, p.56), such formulations tend to place student writers, in their own and their peers' eyes, on the same level as published research, blurring lines of expertise.

7.5.3 Working with ideas and content supplied by others

Over and above overt acknowledgment, what would constitute linguistic evidence for working with the ideational meaning supplied by others? Repeated lexical items, logico-semantic relations between posts and critical engagement with ideas might be contenders. However, analysis of this kind is somewhat complicated by complexity of interaction patterns, as suggested above. Thus it may be difficult to show links between posts and an argument may be diffuse rather than linear, as demonstrated with respect to the 'causes of obesity' debate in Chapter 6. Knowledge construction may need to be understood in two senses: building on the ideas and content of named individuals, and building on the generalised and unacknowledged content available at the time of posting.

Lexical strings and taxonomies are commonly used to map ideational meaning, as noted in Section 7.1. A version of this was trialled in Case 1, Module 1, Group 3. A string of connected

posts: the moderator's initial post (4) and four posts (5, 6, 7 and 19) in which participants explicitly mentioned the previous post(s) in the list were analysed for word occurrence (there was no attempt to create lexical strings or taxonomies). Terms were mapped to themes related to outbreak investigation, disease, disease processes, concern, patients and organisms (Appendix 12). The analysis showed 13 out of 89 terms were picked up and repeated 19 times in subsequent posts. The terms repeated were most commonly general terms such as disease, outbreak, cause, examination and tests and those used by the moderator, with a small number of more specialised terms (clustering, organism). The results do not necessarily provide conclusive evidence of knowledge construction, particularly given the low incidence of take-up of terms, but when taken together with cases where another's ideas are explicitly acknowledged suggest the possibility. However, identical lexical items may be coincidental or result from general field knowledge. Being merely repetitive, they may not of themselves indicate any learning. Possibly a taxonomy showing the presence of more abstract, technical or metaphorical terms would be a better indication of learning. This would benefit from further theorisation and research for the online context, which however falls outside the scope of this study.

7.6 Argumentation and genres in online discussions

Critical engagement and argumentation are considered significant components of education, especially in academic contexts, and online knowledge construction in particular, as I argued in Section 2.6. As Coffin et al (2012, p. 39) point out, this involves the ability to 'present well supported and reasoned arguments as well as engage with alternative points of view', implying that argumentation exists within individual students' texts and in interaction between them. This distinction forms the basis for this chapter: in Section 7.6.1 I briefly revisit the genres and genre stages and phases present in the K2 move complexes in all three case study discussions before exploring argumentation beyond posts (7.6.2) and discussing pedagogical implications (7.6.3).

7.6.1 K2 move complexes and genres

The premise for this section stems from genre theory, namely that written academic genres have arisen to enact a social purpose –to structure and communicate academic knowledge – and that certain academic genres – for example discussions and expositions – structure argumentation in specific ways, enabling critical engagement with ideas, while others (for example recounts) do not function in this way. In Chapter 4 I proposed that individual posts

generally represent macrogenres and outlined the academic genres or genre fragments found within case study posts. I noted that genres represented included descriptive reports, factorial explanations, procedures and hortatory expositions, with a smaller number of discussions and expositions, and that many posts represented combinations of sequential or embedded genres or genre phases. Genres mostly responded to the genre implied by the moderator's question, where this was clear. On some occasions the genre fragments were too short or too grammatically ill-formed to claim a connection between them and a known genre.

The macro-genre structure described above suggests that, compared to assignments which generally require well-argued single genres, in discussion posts genres are generally not developed in their entirety. This in turn implies that students may not develop the skills of academic argumentation or the structuring of specific knowledge which would occur in an assignment or academic paper, with possible implications for knowledge construction. The tendency for discussion questions to elicit personal opinions and experiences (and possibly spoken models) appear to bias genres present. Finally, given that students are expected to master standard academic genres in assignment writing, the opportunity for these discussions to serve as an apprenticeship into academic writing is lost. There is a disjunct here between the expectation that online discussions will foster academic argumentation skills and the reality that written genres which may be needed to realise this are often blurred by the mode.

7.6.2 Argumentation between posts

In addition to argumentation in genres within posts, argumentation occurring between individuals, and hence in separate posts, was tracked. This was done by analysing all responses to moderator posts in the initial threads of each discussion (58 posts). The sample is small hence the findings are indicative only. The results are summarised in Table 7.2. Overall, levels of argumentation (or even response) are seen to be low, suggesting a concentration on own answers rather than interaction, perhaps to maximise grades. There are few challenges in this sample and only a small number in the case studies as a whole, suggesting that argument or disagreement is generally avoided. This is why Lee's rather aggressive posting behaviour (described in Chapter 6) was so out of keeping with the tenor of proceedings. The comparative watering-down of evaluative (and persuasive) language in this discussion may be part of the syndrome of low level argumentation, the reluctance to defend a thesis and take a stand lest interpersonal relations be affected (e.g. Coffin and Hewings, 2005).

Interestingly, it is possible to regard at least some of the texts as being collaboratively created. In Case 1, the moderator in her question supplies the first stage or phase of a genre, for example the phenomenon or the aim, to be completed by students, while student expositions may contain recommendations originally made by others. In Case 3, students often construct a well-formed genre but omit the thesis, deliberately inviting other opinions. Differences of opinion which do arise disperse quickly, as with the causes of obesity in Case 2 (Chapter 6). Generally speaking, these discussions show breadth rather than depth of argument.

	Case 1 Mod 3, Group 3	Case 2	Case 3
Number of student posts analysed	19	17	22
Posts receiving responses	8	10	5
Total number of responses	11	13	9
Answers to questions	2	3	
Agreement only		2	6
Appreciation		2	1 with agreement
Authorial endorsement only	5	0	0
Additive – providing further information or detail	2 (content incorporated)	7 (content not incorporated)	1
Challenge only	1	0	1
Combination of several of above	1	0	

Figure 7.2 Patterns of response compared across 3 cases

7.6.3 Argumentation in online discussions

Argumentation in online discussions thus theoretically occurs both in the K2 move complexes in individual posts and in connections between posts. Regarding K2 move complexes, it was not the intention of this study to exhaustively describe the genres and their phases and stages present in these discussions, but to establish patterns of use and consider repercussions for knowledge construction. It was concluded that the incomplete genres identified in K2 move complexes often failed to develop appropriate argumentation. Similarly, argumentation patterns between posts identified in Section 7.6.2 showed that argumentation and synthesis were downplayed. The study data (and data from other contexts) could usefully be further analysed to elaborate on these understandings.

Despite some differences in user groups, these findings support the general conclusion (see Chapter 2) that students in online discussions do not achieve the predicated higher levels of cognitive engagement (for example synthesis of arguments). As well, these findings resonate with those of other linguistically-focussed studies, which have shown online discussions to feature breadth rather than depth and a low quality of argumentation, perhaps resulting from unwillingness to disagree (or even respond, in some cases), a focus on own contributions, low levels of refutation and counter-claim and generally the absence of an integration or conclusion (reported in Coffin et al, 2012). This is slated home to the desire to maintain interpersonal relationships and is responsive to factors such as task design and moderation (reported in Coffin et al, 2012). Further, it resonates with Piriyasilpa's (2009) findings concerning genre fragmentation. I note that Coffin et al's (2012) SFL and genre-based methodology is promising for future research and obviates the need for dual analytical tools, such as I have used.

Pedagogical implications

The pedagogical implications of different (and arguably weaker) forms of argumentation found in online discussions compared to those encountered in written academic genres have been hinted at above. It is not clear whether researchers have a model in mind for spoken argumentation (as opposed to casual conversation) in such discussions. However, it is clear that mode considerations, such as the named, public and persistent nature of postings and the desirability of community maintenance, have the potential to inhibit argumentation between participants. This has been noted in this section in the highly positive nature of references to each others' ideas, relatively low levels of challenge and omission of thesis stages to open the discussion to others. This seems to be a common finding across a range of contexts. It may be that the longer a group is together, the more trust develops and the less such mode considerations will interfere with argumentation. It may also be, as Coffin et al (2012) suggest, that the discussion needs to be pre-structured to ensure argumentation occurs. Alternatively, if a 'natural' discussion is desired, ways of constructively engaging in nuanced argumentation in this unique written/spoken context could be modelled.

The implications of incomplete genres in K2 move complexes will seem more or less worrying depending on epistemological orientation. For some, the failure in discussions to structure arguments using known academic genres will imply that valued types of reasoning are not being developed. For others, a non-linear 'bricolage' of genre fragments may correspond to new ways of knowing and learning and may not be cause for concern. In either case, where

there is still a requirement for academic genres to be written, the current state of affairs presents an opportunity lost to apprentice writers into these genres and poses the threat that elements of the 'bricolage' may be transferred to more formal academic writing. Explicit teaching of written academic genres is thus required. Further, careful constructions of tasks and questions will maximise the chance that appropriate genres will be used by students.

7.7 Themes in online knowledge construction

The approach taken in this chapter to theorising knowledge construction has not so much focussed on ideational meaning as on the interface between ideational and interpersonal meaning. It has done so under three headings: *shaping* the discussion to maximise opportunities for knowledge construction (using ENGAGEMENT resources of <u>expand</u> and <u>contract),</u> relations to *resources* both within and outside the discussion (using ENGAGEMENT) and *argumentation* within and between posts (using genre theory). Across these three facets of discussion activity, four main themes have become apparent: low-impact relations to propositional meaning, low-impact interaction with others in the discussion, what I have termed a 'personalising' tendency and the connection between argumentation and genres present in posts. In the discussion which follows, online discussions are frequently compared with written academic texts as regards, for example, engagement and citation. This is deliberate, in view of their written mode (Chapter 4), but is balanced from time to time with theorisation of their connection with, or the impact of, spoken modes such as tutorial participation.

7.7.1 Low-impact relations to propositional meaning

The findings reported above have shown that, compared with written academic texts, sources of knowledge brought to the case study discussions are more commonly human rather than print and electronic resources. This is particularly true of moderators and Case 3 students, for whom their own personal and professional experience and peers, respectively, are the primary sources used. Even where external textual sources are used, a stance towards them is often absent, resulting from narrative and descriptive ways of introducing them. Although this was not empirically tested, the substitution of researchers with the artefacts of their research seems more pronounced than normally found in written academic texts.

It was proposed above that knowledge construction is facilitated where space for other voices and meanings is expanded rather than contracted (Martin & White, 2005). Both students and moderators show an overall preference for expansion in questions and evaluations, where

these exist, and in providing information in answers, summaries and feedback. Thus knowledge construction is facilitated to a point, but this openness needs to be reigned in from time to time to keep discussions on track and provide some certainty around propositional meaning. After all, it cannot be guaranteed that even distributed knowledge amongst all students will produce 'correct' answers or insights. In some cases (e.g. Case 1 Group 3) the moderator manipulates the space available in a balanced fashion. In other cases, notably Case 2, virtually no propositional meaning is construed by the moderator. Categorical statements are only made by students where alignment is assumed, although this can misfire (see Chapter 6). The ensuing lack of clarity and certainty regarding propositional meaning and misalignment of apparent and real openness in questions impact on student learning and satisfaction.

7.7.2 Low-impact interaction with others in the discussion

In addition to the preponderance of ENGAGEMENT: expand noted above, there were low levels of overt reference to peers and their contributed knowledge compared to the possibilities afforded by the technology. Where such reference occurs, it largely consists of simple agreement (rarely disagreement), responses to questions and additive comments, with few challenges and other forms of argumentation, leading to breadth rather than depth in the discussion.

7.7.3 'Personalising' participation

Linked to relatively low levels and impact of interaction with others' ideas is the tendency for individuals to focus on themselves (cf Coffin et al, 2012). This is certainly the case with moderators (selves as sources) but is more pronounced amongst students, resulting both from the questions asked and a tendency to personalise relations to knowledge. As noted earlier, questions asked impact on the genres selected for answers, for example hortatory expositions rather than procedures (Case 1) or discussions (Case 2), stressing 'what I think we should do'. Such questions are associated with student answers which foreground their own mental processes, e.g. agreeing, thinking and reflecting rather than espistemic knowledge itself. The concept of personalisation can be extended to include metacomments on own postings (section 7.5), linked to forming an identity as virtuous online discussant, and the intrusion of negative judgement in relation to introduced texts, both mentioned in Chapter 6. In its most pronounced form, personalisation serves to establish the student as researcher, projecting the field of research which projects the field of content. It may be combined with appreciation or a foregrounded artefact or may be quite unrelated to external sources at all.

7.7.4 Argumentation and genres

In Section 7.6.3 I argued that the K2 move complexes in student posts represent occasionally complete genres but more often macrogenres consisting of stages and phases of other genres. This is of interest because academic genres have arisen to construe academic meaning and the potential exists, where genres or macrogenres are truncated and not well-formed, for students to miss out on opportunities to master (linear) academic argumentation, still required in most academic contexts. However, the types of text found in online discussions may well tap into other, less linear, ways of reasoning and structuring and constructing knowledge. To pursue this further falls outside the remit of this study. I also noted that genres are sometimes constructed jointly between moderators and participants, and that concluding stages are occasionally omitted to elicit contributions from peers. However this joint construction is limited and rarely reaches the higher cognitive levels proposed by theorists; it may be unrealistic to expect cognitively complex arguments to be jointly rather than individually constructed.

7.7.5 Constructing knowledge

Exploring the construction of knowledge in the case study discussions had enabled the identification of a syndrome of discourse semantic features which characterise this process. These include dialogic expansiveness and lower commitment to categorical meaning, a tendency to bring in media personalities, peers and self as sources and to refer to artefacts of research rather than researchers, reduced evidence of stance towards sources, low-key evaluation and low levels and intensity of interaction with the views of peers. This is supplemented by the relentlessly positive tone and lack of argumentation. Most striking is the 'personalising' tendency, which foregrounds writers' mental processes and feelings and their research and discussion activity (via metacomments) to the point where roles as researchers and levels of expertise may be blurred. Many of these resemble features of spoken rather than written language, leading to the conclusion that bookending ideational meaning-making ('chunk') with interpersonal components ('chat'), following Eggins and Slade (1997) for casual conversation only tells part of the story. Features of spoken language suffuse the 'chunk' component, the K2 move complexes, as well. This is interesting in light of Halliday's comment noted earlier that students need to construe their experience in two modes – 'the dynamic mode of the everyday commonsense grammar and the synoptic mode of the elaborated written grammar' (2003, p. 112) and need to develop facility in choosing the right point on the

continuum to position their texts. The analysis in this chapter shows how students have approached this task.

The findings reported above have some parallels with the 'low impact' evaluative choices identified in Chapter 5. It appears that in the construction of knowledge, just as much as in the maintenance of community, discussion participants are valorising interpersonal meaning making over ideational: argumentation, strong commitments to value positions and overt evaluation are downplayed. Relations to content supplied by others is largely restricted to agreement (said to foster community) and additive comments, avoiding for the most part deeper engagement which might involve disagreement and modification. It may be that constructive and nuanced means of engaging with the ideas of others on asynchronous online settings such as these, enabling true argumentation which does not offend, have not yet been modelled for students to employ. However, in some respects students' choices go beyond interpersonal considerations to a perhaps more individualistic concern with identity, visibility and good grades.

Chapter 8 Learning to mean online in academic and professional contexts

The context for this study is the increasing uptake of ICT-enabled teaching and learning, and specifically of asynchronous online discussions, in higher education. Its impetus lies in the apparent disjunct between the pedagogical promise of such discussions, founded on the collaborative construction of knowledge within supportive and democratised online communities, and the experiences of teaching and learning through them, reported both in the research context and in published research. This issue is significant on a number of grounds: the educational technology engaged is said to embody considerable potential for enhancing teaching and learning, yet there are questions to be asked both about the theoretical assumptions and the empirical research underlying such claims.

Despite much positive evaluation of the success of online discussions, researchers have come to identify at least two significant ways in which they were not living up to their assumed potential. The most significant of these is the repeated failure of students to reach the higher levels of knowledge construction assumed in the pedagogical rationale (e.g. Hopkins, Gibson, Sole, Savvides & Starkey, 2008; Levy, 2006; Sclater & Bolander, 2004; Wang, Woo & Zhao, 2009). Less commonly mentioned but still of concern are the low levels of comfort, engagement and interaction expressed by participants (e.g. Tu & McIsaac, 2002; Paloff & Pratt, 2001). The role of online moderators or facilitators was often not clear, with guidelines (e.g. Salmon, 2004) not empirically supported (e.g. Doherty, 2006) and ambivalent relationships between moderation and participation (Mazzolini & Maddison, 2003; Painter et al, 2003).

Research into experiences of asynchronous online discussions, which might be expected to help understand and resolve these issues, has achieved this to only a limited extent. Published studies have tended to be inadequately contextualised, ambivalent regarding discussion effectiveness and difficult to compare. Common approaches have been quantitative or survey-based or, more recently, interpretive or cognitively oriented. Few studies have examined the interaction itself; where this has occurred, coding schemes have often been applied to facilitate analysis, but at the cost of imposing arbitrary, pedagogically-driven categories of interaction.

In order to arrive at an in-depth understanding of the processes involved in teaching and learning online, an alternative approach was needed, one which analysed the discussions as discourse and as texts, and language as realising meanings. Analyses are based on a social

theory of language, namely Systemic Functional Linguistics (SFL). SFL was chosen since it recognises the close connection between language and learning and has a robust track record in explicating pedagogic discourse. The combination of methods and theory in the present study connects to a small number of studies using SFL to examine online discourse in general (e.g. Don, 2007) or in educational contexts (e.g. Doherty, 2006; Piriyasilpa, 2009; Coffin et al, 2012). The choice of approach acknowledges the importance of understanding texts as instantiating genres or macrogenres, rendering them transparent and able to be modelled and scaffolded pedagogically. It also acknowledges that genre unfamiliarity may be one potential factor in participant confusion and dissatisfaction. The approach taken identifies and compares patterns in texts viewed individually and in context, to capture the complex relationships of meanings in each text, as well as patterns and variations across texts. Linguistic analysis is supplemented (and often corroborated) by student surveys, in order to answer the research question *How are the online discussions understood and evaluated by participants?*

The approach outlined above and in depth in Chapter 3 allows me to respond to the main research question, namely *How are learning and teaching enacted in asynchronous online discussions in the context of post-graduate public health education*? Additionally it allows more detailed questions to be answered, namely: How is 'interaction' enacted? Is there any linguistic evidence for the formation of communities? What are the linguistic markers of knowledge construction?

8.1 Contribution of this study

The contributions of this study revolve around the depth and breadth of its analysis of the interaction which occurred online, enabling both a detailed exposition and a theoretically-based interpretation of the way interpersonal and ideational meanings were construed by participants and the impact of the online mode on these meanings. In terms of genre, online discussions have been described as the 'collaborative construction of knowledge through text-based interaction', in other words a configuration of the register variables of tenor (collaborative), field (knowledge construction) and mode (text-based interaction). This thesis has been structured to follow an argument which starts from an exploration of the mode of these texts, then traces in turn the impact of mode on the enactment of interpersonal meaning and the impact of interpersonal meaning-making on the construal of ideational meaning. In this way, internal contradictions (and occasional synergies) were identified. The study as a whole answers the research question: *What relationships are evident between the*

pedagogic rationales, the experiences of participants and the kinds of knowledge constructed in the discussions? I structure this section, which outlines the contribution of my study, in terms of the register variables of field, tenor and mode.

8.1.1 Mode: shaping the discussion

The first step in the study has been to explore the register variable of mode, the part played by language in the interaction. This answers the research question: *How do the affordances and constraints of the mode influence discussion structure and interaction?* Although other researchers have undertaken quantitatively-based investigations of online discussions, my analysis has started to probe the impact of the complexity of interaction patterns both on the development of interpersonal and ideational meaning and on the researcher's task. This complexity includes the fact that threads and posts are hyperlinked, dispersed across threads and time, progressive, with replying and responding not necessarily cognate and no discernible individual trajectory.

Mode features which I subsume under the term 'visibility' have been identified by previous researchers, for example the fact that posts are attributable to and 'owned' by their authors, public, visible and persistent rather than transitory and the fact that they become objects of reflection and re-composition by others. In this way a discussion text can be said to be collaboratively constructed. My contribution includes explicating the profound impact these features have on the realisation of interpersonal and ideational meaning (see 8.2.2 and 8.2.3 below). In some cases my findings offer new insights, and in others confirm existing findings.

Online discussions of this type represent a dialogic (or multilogic) *written* mode (no aural or visual contact) constituting rather than accompanying social action. However, they have been described as 'mixed texts' (or hybrids or creoles) since they exhibit characteristics of spoken language as well, for example the turn-taking of conversation with replies expected, albeit delayed. Further, based on an analysis of NEGOTIATION in the texts, I have identified a structure similar to that identified for casual conversation (Eggins & Slade, 1997) and proposed, for moderator-led discussions, a curriculum macrogenre at the level of thread and discussion, apparently not previously attempted, and a macrogenre structure at the level of post, confirming earlier findings (e.g. Piriyasilpa, 2009). This suggests that the curriculum macrogenre patterns identified are likely to be stable across most instructor-led online discussions, providing a counterweight to structures commonly proposed in moderation guidelines (e.g. Salmon 2004).

Although conventionally the spoken ('chat' and pedagogic discourse) and written ('chunk') elements are described in linear sequence, I show how features of spoken language permeate even the 'chunks' of ostensibly written academic text. These 'chunks' are understood to consist of complete written academic genres or embody stages or phases of such genres, recombined. Coffin et al (2005b) have analysed the argumentation genres and non-argumentation elements in these sections. I extend the discussion of genres and genre fragments represented to include non-argument genres e.g. procedures, since these may appear in response to specific discussion questions asked.

8.1.2 Tenor: belonging to communities

Turning now to tenor, 'the nature of social relations among interlocutors, with the dimensions of status and solidarity' (Martin & Rose, 2008, p. 12), the structuring of the discourse in terms of roles and moves was described, drawing on the system of NEGOTIATION. The NEGOTIATION analysis enabled a macrogenre structure to be formulated, uncovered ambiguities concerning whether exchanges were conversational or pedagogic, and showed that in the latter case they tended to be ill-formed, increasing the potential for dissatisfaction. Further research in this area seems warranted. The NEGOTIATION analysis was unable to clearly define the relative primary and secondary knower status of moderators and students in this postgraduate context, leading to its redefinition as semiotic self-positioning on a continuum between these two extremes. Similarly, applying the definition of a linguistic service as part of NEGOTIATION proved difficult in the online context and a resolution awaits further theorisation. Thus I turned to a tool better suited to an in-depth analysis of interpersonal meaning, namely APPRAISAL.

In view of the importance attributed in pedagogical rationales to the role of communities of various kinds in supporting online learning, the decision was made to investigate the realisation of interpersonal meaning through the lens of community formation and maintenance. This helps answer the research question: *What relationships exist between the communal nature of the interaction and the construction of knowledge?* My unique contribution in this respect involves re-theorising online communities using the resources of ATTITUDE within the APPRAISAL system. In this way I uncover some of the inherent contradictions mentioned above.

Linguistic markers for communities of enquiry (e.g. Anderson et al, 2001) or of learners correspond to selected resources within INVOLVEMENT, and within APPRAISAL: ATTITUDE, affect and

appreciation. These also feature in guidelines for moderation. I showed that these markers were not particularly prevalent in the case study discussions, that guidelines for their use and analysis are to some extent misleading and that previously unrecognised resources, for example positive JUDGMENT, were used as well. It proved difficult to theorise the impact of prior face-to-face interaction on community development in this study, since even those students in the fully online cohort (Case 1) had had/ were having face-to-face interaction with each other in other courses and other units of study. This issue would warrant further research in cases where a cohort without any prior face-to-face contact at all could be identified. The fact that Case 1 students can be seen to command community-building resources but choose not to use them in content-focussed discussions leads me to question the value and relevance of the social in postgraduate professionally-focused discussions.

Slightly more positive were findings for Communities of Practice (COPs) (Wenger, 1998), built around the negotiation of professional and disciplinary meaning. Membership of such communities has rarely been linguistically theorised (Barton & Hamilton, 2005; Tusting, 2005), although successful participation is heavily dependent on language. One of the contributions of the present study is to conceptualise for the first time COP membership as an affiliative or communal identity resulting from the coupling of interpersonal and ideational meaning. This affiliation or bonding occurs around valued research methods and sound investigative procedures but most interestingly as a moral positioning, largely using the resources of JUDGMENT and sometimes negative APPRECIATION and AFFECT, around charged issues in public health, such as the activities of Big Tobacco and responsibility for the 'obesity epidemic'. My findings extend the concept of affiliation to contexts in which it has not previously been studied but they do not exhaust the potential for COP membership to be further theorised linguistically. The obverse of communal identity is individual identity, which can include identities as professionals and as learners, identities which may be taken on or resisted. I outline the potential for the assertion of individual identity to disrupt community in one case, an aspect which, while identified, has also been under-researched from a linguistic point of view.

I now come to one of the major contradictions inherent in online discussions, namely that the efforts by (many) moderators to establish and maintain a supportive community has the potential to work against the successful development of ideational meaning by students. I propose that moderators' discourse functions to maintain community in overt ways (e.g. by positioning the virtuous online learner), by using attitudinal resources (e.g. AFFECT,

APPRECIATION, positive JUDGMENT) and by choosing to efface status differentials (and increase 'democracy') between themselves and students by means of incongruent realizations of various kinds. The latter include interpersonal grammatical metaphor such as modulated statements replacing imperatives and reduced FOCUS which may serve to enhance reciprocity but which also render instructions less clear than they would otherwise have been. Surprisingly, although positive AFFECT, APPRECIATION and JUDGEMENT were present, they were realised by 'low impact' choices, for example they were invoked rather than inscribed and featured affective formulae, phonological surges with their meaning underspecified and irrealis or metaphorical realizations. These were generally directed to the group rather than individuals. Together with modulation and reduced FOCUS, these represent reduced commitment of meaning. I argue this occurs in response to the visibility and permanence of postings as well as functioning to sustain warm interpersonal relationships and a sense of community, and represents attempts to ameliorate status differentials. Among other things, such responses risk creating texts in which meanings are too implicit for all students to understand. These findings represent a considerable expansion of existing theorisations of membership of online learning communities and raise an important issue: how can the benefits of online communities for learning (e.g. Garrison, 2006; Tu & McIsaac, 2002; Reio & Crim, 2006) and learner satisfaction (e.g. Russo & Campbell, 2004; Swan & Shih, 2005) be maintained whilst at the same time maximising clarity, explicitness and the construction of knowledge?

8.1.3 Field: constructing knowledge

Regarding the second pillar of the pedagogical rationale for online discussions, collaborative knowledge construction, the approach taken is not so much to explore the construal of ideational meaning in isolation but to explore the interface between the ideational and interpersonal, suggested both by the SFL concept of the simultaneous realisation of the three metafunctions and the juxtaposition of 'collaborative' and 'construction of knowledge' in pedagogical rationales. This allows me to answer the research question: *What kinds of knowledge are discursively constructed in these online discussions?* Findings covered three main areas: the way in which discussions were shaped to expand (and contract) space for other voices and meanings, individuals' relations to *resources* brought into the discussion and the issue of *argumentation*. Although the approach taken in this section varies in some ways from that of Coffin and colleagues (e.g. Coffin et al, 2012) in that it relies almost exclusively on ENGAGEMENT analysis, many of my findings resonate with theirs. It also confirms earlier non-

linguistic research which found that students were not reaching the assumed higher levels of knowledge construction.

ENGAGEMENT theory implies that both knowledge construction and the maintenance of a sense of community are best supported by ways of discussing which open up (expand) space for other voices, values and propositional meanings, reducing the interpersonal cost of disagreeing with or challenging views. I showed that, while some moderators and students appropriately controlled the expansion and contraction of space for negotiation, overall there was a preponderance of expansion. Categorical statements were made only when there was reasonable expectation of agreement, and there was very little disagreement and few challenges overall, with the exceptions noted in Chapter 6 (confirming Coffin et al, 2005a and North, Coffin & Hewings, 2008). Further, I demonstrated that students, when they brought external sources into the discussion, tended not to use the standard forms of ENGAGEMENT, with a narrative approach often being substituted, as well as downplaying authors in favour of the artifact itself (study, report).

Connected to the above, I showed that students' overt interaction with peers is more likely to consist of simple agreement, additive comments and responses to questions than challenges and other forms of argumentation, which might be perceived as disruptive of positive interpersonal relations (Coffin & Hewings, 2005). This is closely linked to a tendency for individuals to focus on their own answers rather than those of peers (confirming Coffin et al, 2005a). This focus on own answers manifests itself in the case studies in what I have termed a 'personalising' relationship to knowledge. This consists of students' metacomments on their own postings, answers which foreground their own dispositions and mental processes, displays of negative judgment and students establishing themselves as researchers, making strong claims to be knowers and blurring lines of expertise (Coffin & Hewings 2005). This tendency is also reflected in the genres chosen for answers: hortatory expositions ('this is what I think ought to happen') are often found where more objective genres (e.g. procedures, discussions) might be expected, although this can be attributed to some extent to the type of questions asked.

The rather individualistic posting behavior described above seems surprising, given the emphasis on community, socialising, cooperation and collaboration in the pedagogical rationales for online discussion, and much task framing within the case study discussions. Partial explanations include deliberate subjectivity (I think…) to support, or at least not to threaten, community, the infusion of features of spoken modes (face to face tutorials) into the

ostensibly ideationally-focussed K2 move complexes and uncertainty about the need to cite and reference. Unwillingness to take a stance also plays a role, possibly linked to avoiding taking on an academic persona in a public forum (as opposed to a 'private' assignment cf Hewings and Coffin, 2007). On the other hand, the fact that postings are assessed and individualism possibly fostered by social media may play a role. *It should be remembered that these findings relate to a specific context (scenario and readings-based assessed discussions in postgraduate health professional education).* It would be interesting to see to *what extent they, and the other findings of this study,* might be replicated *in different educational contexts.*

Moderators' evaluation and feedback, where present, were commonly muted, often favouring group over individual responses. They tended to rely on personal and professional experience rather than resources external to the discussion and their summaries of answers or information toggled between categorical and modalised statements. Thus moderator relations to propositional meaning can also be described as low-impact, as are their realizations of interpersonal meaning, with repercussions for students' knowledge construction, for example certainty about correctness of answers.

Finally, the study explores the connection between argumentation and written academic genres. I argue that such genres have arisen for the social purpose of structuring thought and argument, supporting modes of reasoning valued by the discipline. The presence of fragmented or incomplete genres (cf Coffin et al, 2005a) means that the opportunity to structure entire arguments (or practise academic writing skills for that matter) is foregone. This may be a conservative position and open to challenge, and indeed there are claims that students, as 'NetGen' and 'digital natives', learn in different ways to their predecessors (for example, collecting knowledge from various sources in a 'bricolage' rather than constructing linear arguments). Probing this further lies outside the scope of this study, but if nothing else the fact that students are expected to write discussions and expositions, for example, in essay mode suggests that linear forms of reasoning are still a significant expectation in academic discourses.

To summarise, the contribution of the thesis as a whole lies in its answer to the question *What relationships are evident between the pedagogic rationales, the experiences of participants and the kinds of knowledge constructed in the discussions?* Broadly speaking, the study has identified numerous internal contradictions, some of them quite worrying, within the concept of teaching and learning by means of online discussions. It transpires that there is some evidence for the presence of communities and weak evidence for 'democratisation'. Linguistic

resources used to sustain communities and democratisation within the constraints and affordances of the mode have the potential to hamper the development of ideational meaning. This includes unclear instructions, misleading questions and low-impact or absent evaluation and feedback leading to uncertainty regarding the correctness of propositional meaning proffered. Regarding the negotiation of ideational meaning, the findings of this study uphold claims that students are generally not reaching higher levels of knowledge construction and suggest new reasons for this. Findings in some cases showed low levels of engagement, critical or otherwise, with the ideas of others and a reluctance to take a stance when introducing sources, responding to mode considerations as well as a commitment to opening space for others to contribute. One surprising finding was that, in spite of pedagogical concepts of community, we see amongst participants an individualised preoccupation with their own postings and what I have termed the 'personalisation' of their relations to knowledge. This joins low impact relations to propositional meaning and failure to engage with the ideas of others and the absence (for the most part) of fully-formed genres to support the development of arguments. Ironically, moderators are at pains to support community, potentially compromising ideational meaning, while students pay less attention to interaction with peers and post individualistically. This may be partly the result of the assessment of discussions, but in another irony it has the potential to hamper the development of the ideational meaning on which they might be assessed. Thus mode and considerations of community foster a particular form of enacting interpersonal meaning, compromising the construal of ideational meaning.

It may be premature to consider describing the genre of online discussions beyond the register variables and the macrogenre structures presented in Chapter 4. However, linguistic features identified in this study such as low-impact evaluative choices, personalisation and muted relations to knowledge may be common features of the genre. In some respects the findings in this study confirm those of Coffin and colleagues, especially as regards concern with individual posts, failure to critically engage with the ideas of others, guarded responses and reluctance to engage in argumentation (e.g. Coffin & Hewings, 2005). More research is needed to discover whether these findings are generalisable to other educational contexts.

8.2 Pedagogical implications

The contradictions identified in the findings appear to be inherent in the mode and quite deep-seated, with consequent pedagogical implications. I have also noted that online discussions are

sensitive to context, including educational level, previous face-to-face contact as a group, disciplinary field, underlying pedagogy and activity type. This means that guidelines for moderation and activity design need to be both nuanced and formulated to overcome these contradictions insofar as it is possible. Despite the possibly negative tone of much of my discussion of findings, many educators find that online discussions have, beyond flexibility and convenience, pedagogical benefits such as motivation flowing from personal involvement, opportunities for reflection, bonding around issues of importance and the genuine sharing of ideas and experience. Many educators may be willing to sacrifice *to a certain extent* the development of ideational meaning and apprenticeship into academic writing to leverage these benefits, but ideally pedagogical strategies should be developed to maximise both community and knowledge construction. The teaching and learning suggestions below, based on the findings of this study, address three key aspects of online interaction, namely the teaching of participation, the role of the moderator and apprenticeship into academic writing. Fully nuanced guidelines, however, await further detailed linguistically-based research in a range of contexts.

8.2.1 Teaching participation

Students in the present study engaged in online discussion with little preparation, and in fact it seems to be commonly assumed they will somehow know how to participate, perhaps by analogy with the social uses of ICT, face-to-face tutorial participation or academic writing. The differences in linguistic realisations between posts as well as student responses in surveys indicate that there may be a lack of shared expectations and understandings of online interaction. It is commonly suggested in moderation guidelines that moderators should model desired responses. The findings in this study have identified some instances in which students do appear to be following linguistic forms modeled by moderators, for example in the use of interpersonal grammatical metaphor, and other instances where this is not the case, for example the complex endorsement patterns in C1G3 which were first used by students. While it is true that case study moderators do miss opportunities to model desirable behaviours, for example how to relate to sources or cite and reference (if required) or how to engage in constructive argumentation and challenge (Coffin et al, 2005a; 2005b), it is not clear that modeling by itself would be sufficient to teach the necessary skills. In the case of constructive argumentation, modeling this with the texts of students currently in the discussion might prove confronting, especially when the group is new. I propose that it is necessary to explicitly teach participation. This might best be achieved using a method such as the Sydney School's

Genre Teaching Cycle, in which a model text is analysed and deconstructed and a similar text written jointly, then individually. This process is analogous with the formal teaching of academic writing in many academic contexts. The analysis stage might include the macrogenre structure, suitable length, avoiding repetition, whether and how to engage with external resources, ways of engaging with the posts of others and ways of constructively challenging and critiquing the ideas of others and arguing a point of view while still expanding space for others.

8.2.2 The moderator's role

This study has shown how complex the role of the moderator is, and how context- dependent. Two successful patterns of moderation identified were the C1G3 moderator's summarizing of relevant answers and information in a field in which procedures and facts were important and the C3 moderator's placement of occasional probing questions where the group was engaged in sophisticated discussion which was predominantly opinion-based rather than dealing with facts. The following guidelines are derived from the case study context.

- Be present. Constructivist and adult learning principles and concepts of distributed knowledge are built on the premise that students can learn from each other. I have shown in several places above that this was not well received by many students, who were unconvinced of the veracity of their peers' responses and expected confirmation (or otherwise) from the moderator. In spite of the complexity of providing it, students are entitled to feedback, at least in moderator-led discussions. It must be positive, as negativity results in disengagement. Despite their disadvantages, generalised summaries, as in C1G3, are an appropriate response, or feedback can be provided off-line.
- Clarify expectations. This applies at all levels. At the (postgraduate) degree and disciplinary level, students need to be assisted to gain a tolerance for uncertainty and an understanding that there are not always definite and clear-cut answers. In the discussion itself, students need to be clear about its aim, the space available for unanticipated responses and the possibility of a wide-ranging discussion. It also refers to student understanding of the moderator's role, including frequency, targets and extent of feedback, requirement for citations and other practical matters. Differences in educational and cultural understanding between group members need to be overcome.

- Be congruent. Congruence refers to a clear match between questions asked and the expected genre of answers, between the apparent and real openness of the question and between the question and the type of answer (objective or subjective) required. Congruence also applies to the choice of activity types: where questions require factual recall, an online quiz is more suitable; if students are to construct a (textual) artifact, a wiki may be more suitable. It may be necessary to provide some examples of questions and required answers. Congruence also refers to instructions. If congruent realisations seem too blunt and potentially damaging to community or democratisation, they could be provided offline. Too strenuous an attempt to mitigate status differentials and achieve symmetrical relations is detrimental to learning (cf also Painter et al, 2003).

- Provide appropriate volume and frequency of moderation. It is often assumed this can be accurately quantified. Again, it depends on the context, keeping in mind the ambiguous inter-relationship of student and moderator posting patterns. Frequency is perhaps more important than time spent, as frequent 'visits' to the discussion will ensure it is brought back on track if veering and errors are (sensitively) corrected in good time.

More detailed suggestions for moderation can be found in several chapters above, for example the insight that students should be encouraged to name each other but that moderators should exercise caution when naming students, that inclusive pronouns do contribute to a sense of community but that non-inclusive pronouns are also needed and that enthusiasm for the field, commitment to valued research and procedures and appropriate attitudes can be modeled.

8.2.3 Apprenticeship into academic writing

Register variables for online discussions and the writing of assignments and other academic texts are very different, as noted above in several places. This relates to features such as the completeness of genres, visibility and permanence of texts, public rather than private communication, ambiguity of audience, presence of features of spoken language, personalisation of relations to knowledge and low-impact relations to sources. Thus the two types of writing are so different that online discussions probably cannot be regarded as an apprenticeship into academic writing, representing a lost opportunity in one sense. It does not seem possible to insist on features such as complete and well-formed genres and standard engagement with sources in this context, and to do so would detract from the interactional

and social nature of the discussion. However, it may be that certain skills can be developed in online discussions that are transferable, for example writing a research warrant or constructively critiquing ideas. On the other hand, the potential for transference of inappropriate online discussion writing habits to essay writing needs to be guarded against.

8.2.4 Other aspects

Low-impact linguistic choices were identified in the texts and appear to be a natural response to mode considerations. It is thus less a matter of recommending their use than assuming this will occur naturally, and proposing that the concept requires further research.

Finally, adopting new communication technologies, for example social media, in pedagogical contexts should not occur as a result of some axiological belief in their necessity and utility or unbridled enthusiasm for the technology, but should be based on the detailed type of analysis undertaken in this study.

8.3 Directions for future research

The discourse analytical approach taken in this study was chosen to address the paucity of research examining online interaction itself in a linguistically principled fashion, unfettered by predetermined coding schemes. This approach, as noted, led to findings which provided qualified support at best for some of the insights arrived at through non-linguistic analyses. It also led to findings which confirmed those arrived at by other SFL-informed analyses, particularly those of Coffin and colleagues (and Piriyasilpa to a lesser extent due to differences in user characteristics and discussion activity design), particularly as regards the lack of challenge and argumentation in student posts.

Further detailed discourse analytical research into online discussions, preferably SFL-informed, in a range of educational contexts is needed for several reasons. The first of these is at a general level. It concerns the sensitivity of such discussions to contextual factors, including educational level (primary, secondary or higher education), extent of prior face-to-face interaction (if any), disciplinary field or subject area, activity type (e.g. scenario, reading), user characteristics (for example language and cultural background and prior education) and underlying pedagogy (constructivist or more instructor-centred). SFL-informed analyses would allow for comparisons between discussions in such diverse contexts, improve understanding of the impacts of these variables and provide empirically derived guidelines of greater subtlety

than currently available. Such analyses could be combined with other methods e.g. survey or interview techniques.

More specifically, such an approach could:

- Examine the impact of complex interaction patterns, viewed chronologically and in threads, on the development of interpersonal and ideational meaning
- Show to what extent the curriculum macrogenre identified in this study is stable
- Explore register variables (field, tenor and mode) in different discussion contexts, for comparison
- Describe syndromes of ATTITUDE supporting communities of learners in different contexts
- Confirm whether the low-impact attitudinal choices made by moderators identified above are a recurring phenomenon
- Track contexts in which morally-charged communities of practice develop
- Ascertain whether the individualising, personalising tendencies noted here amongst many contributors are replicated in other contexts.
- Describe and model strategies identified for constructive engagement with ideas of peers and the avoidance of conflict
- Question and reconceptualise the notion of community in online discussions in other professionally-oriented postgraduate coursework, to see if the purely social is downplayed in favour of affiliation around professional practice
- Theorise more thoroughly from a linguistic point of view participation in communities of practice, particularly the movement from the periphery to the centre.
- Investigate the association between varying extents and types of prior face-to-face interaction as a community and the development of communities, tendency to morally position others in a community of practice and willingness to engage in constructive argumentation.

Further, starting from development of ideational meaning as such rather than its interface with interpersonal meaning, researchers might theorise how ways in which this is normally tracked (e.g. lexical strings, technicality, abstraction, taxonomies, toggling between everyday and technical language) could be explored in complex dynamic interaction such as this. This would enable scaffolding by moderator and peers to be closely examined and the issue of the supposed failure to reach higher levels of knowledge construction to be further explored. A much broader issue was hinted at above which however falls well outside the remit of this

study – whether, given notions of neuroplasticity, the use of ICT has led to changes in the way humans (or perhaps just net natives) process information and learn.

More linguistically focussed questions which future research could address include individuation within discussions, possibly amenable to a corpus-based approach comparing individuals, and the interpenetration of K2 'chunks' with features of spoken language. The notion of the collaborative construction of texts online, embodying a synthesis of knowledge as the result of some kind of collective consciousness, urgently needs theorisation and possibly critique.

In this study I have undertaken a detailed analysis using all subsystems of the APPRAISAL system, and to a lesser extent NEGOTIATION and INVOLVEMENT. These analytical tools were applied in a context in which they are not commonly used, highlighting aspects which would benefit from further theorisation. These include, within Exchange Structure Analysis, extending the concept of a linguistic service to include online contexts such as the present one and further clarifying the distinction between primary and secondary knowers. As noted in Chapter 6, some small details of the system of GRADUATION need clarification. Concepts of identity, affiliation and bonding are undergoing extensive theorisation at the time of writing, which can only improve understandings of online communal identities. Finally, it would be interesting to explore how the three-part endorsement of answers by moderators is understood by students.

8.4 Conclusion

In this study, I have been able to make both original contributions to an understanding of online pedagogical discourse and confirm existing findings, obtained both by means of linguistic and non-linguistic analysis. I have indicated areas which could be further explored, to provide corroboration (or otherwise) and a basis for comparison. It is hoped that future researchers will take up this challenge.

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Negotiating community and knowledge in asynchronous online discussions in higher education

Part 2: Appendices

Appendix 1 Case 1

Appendix 1.1 Case 1 Unit, cohort and moderator description

The Case Study 1 unit concerns the control of infectious diseases. It is an elective, open to students in the home degree and in other, related degrees. It constitutes one eighth of a Masters degree in length and runs for an entire semester. It is fully online; students do not meet as a group although some may know each other from other units of study. Seventy four students were enrolled.

The course materials contain both instructivist (online lectures, readings) and constructivist (discussions) elements. There are six modules, each dedicated to a particular type of infectious disease. The unit's curriculum can be described as *orbital* (Christie 2002), in that there is a core set of procedures to be followed when investigating and controlling an outbreak of any type, with variations depending on the specific disease involved. Each module lasts two weeks. Four days are set aside for lectures and readings, and ten days for the discussion. All discussions are moderated and assessed on the timeliness, quantity and quality of postings and responses to other students' posts (ie interaction).

The Case study 1 cohort consisted of both clinicians and non-clinicians; over one third of participants had not studied in Australia prior to enrolling in their current degree. Students had been offered an orientation (face to face and virtual) to online learning upon commencement of their degree program, although not all took up this opportunity.

The discussions were moderated by a range of experts in public health and infectious disease. Group 3 retained the same moderator throughout while the other groups had different moderators for different modules. Amongst the main discussions analysed, G1M1 and G1M2 were moderated by a highly experienced public health manager and G3 by a health professional; both had at least one year's moderating experience. A tutor guide was provided to assist with moderation; it included the scenarios and suggested questions, although these could be varied. Moderators had been offered training ranging from two hours face-to-face to blended sessions spanning several weeks. This training was informed by Gilly Salmon's (2000) guidelines. Not all took up these opportunities.

Appendix 2 Case 1 Student responses to evaluation surveys

Case #1 Summary data

		Frequency	Percent
Are you:			
	Male	9	43
	Female	12	57
Your age range (age next birthday)			
	Under 25	2	10
	25-34	13	62
	35-44	5	24
	45-54	1	5
Degree you are currently enrolled in:			
	MPH	14	67
	Other	7	33
Your professional/ study context			
	Studying full-time and employed	2	10
	Studying full-time and not working	8	38
	Studying part-time and working	8	38
	Studying part-time but not working	2	10
	not answered	1	5
Have you done an online course before (either partly or fully online)?			
	Yes	13	62
	No	8	38
Were you educated in Australia?			

	All of my education took place in Australia	10	48
	Most of my education took place in Australia	5	24
	None of my education took place in Australia	6	29
Which of the following do you listen to or use every day?			
	Mobile phone texting	10	48
	I-phone	3	14
	Chat program eg MSN messenger	3	14
	Social networking program eg Facebook	3	14
	Other	2	10
How do you rate the **content** of this course?			
	Fair	1	5
	Good	16	76
	Excellent	4	19
How do you rate the **teaching/ presentation** in this course?			
	Poor	1	5
	Fair	1	5
	Good	17	81
	Excellent	2	10
How do you rate the **relevance** of this course to your learning needs?			
	Fair	2	10
	Good	14	67
	Excellent	5	24
How would you rate the **course notes and resources**			

(print and online) in this course?	Fair	3	14
	Good	11	52
	Excellent	7	33
How do you rate the **appropriateness of assessment** in this course?	Poor	2	10
	Fair	5	24
	Good	11	52
	Excellent	3	14
How do you rate the **WebCT** site provided for your course?	Good	13	62
	Excellent	8	38
In general, how satisfied were you with this course?	Very dissatisfied	1	5
	Dissatisfied	1	5
	Neither satisfied not dissatisfied	3	14
	Satisfied	12	57
	Very satisfied	4	19
Did you feel that you learnt what you needed to learn from the online discussions?	Yes	15	71
	No	6	29
Did you feel comfortable in the role of online learner?			

	Yes, all the time	5	24
	Most of the time	8	38
	Some of the time	7	33
	I never felt comfortable	1	5
Did you feel adequately prepared for online discussions?	Yes	16	76
	No	5	24
Did you feel other group members made appropriate postings to the discussion?	Always	1	5
	Most of the time	12	57
	Some of the time	7	33
	Never	1	5
Were you able to develop good relationships with other online group members (students)?	Yes, with all of them	1	5
	With most of them	3	14
	With some of them	5	24
	With none of them	12	57
Did you feel your moderator was responsive to your needs and interested in you as a person?	Very much so	3	14
	To some extent	13	62

	Not really	5	24
Do you feel the moderator guided the discussion in a way which helped you learn?	Yes	20	95
	No	1	5

Case 1 Free text answers

Note these are responses from students in all three groups, except for Response 7, which can be identified as a Group 3 response. There were 21 responses out of 74 students (28.3%). Responses where students did not agree to the use of their answers or responded a propos a different unit of study were deleted, leaving 19. The answers have been provided here in full as they are instructive; selected answers only were able to be included in the main thesis text. Spelling and punctuation as in original; stray html code from the LMS was generally not edited out.

Response 1
- student are very active to discuss in the online discussion, I have learn something from other student
- This is my first online course, I found that it is interesting to participate online, most of tutor and student help each other, i am pretty enjoy this course.
- most of the time i feel comfortable, however (I know that is unpreventable)sometimes when I post my idea, some other student might have the same thinking as me and so that there are 2 smiliar idea on the same question.
- beside to study the lecture notes, i have to look up online and some reference to answer the question in the discussion
- Yes, if there is a chance
- some of group members post appropriate posting, but some group members post wrong idea and they post more than 2 posting in one module
- I think the interaction between group member is only in the discussion, so, we dont know each other well
- I hope moderator can respones to everyone's posting, so I can get the feedback from them
- I think more question in one module is very important, because we can learn more from different point of view and think more about different situation.

Response 2
- It is useful in future works.
- It is very difficult not to have repetition when medical question always have standard answer to it.,
- Diversify coverage and good knowledge fon all diagnostic and medical issues to be able to join in online discussion
- Yes although apprehensive not to repeat what other may have said as this is penalize during the assessment. Thus must always check in for new discussion topic all the times and everyday.,
- Other group members are knowledgeable especially the gap that i have pertaining to laboratory diagnostic field.
- No interaction online except when coincidentally met each other in school library. All have mutual feelings of difficulty in avoiding repetition answer during the online discussion.

Response 3
- Definitely not...the whole point of being an online student is that you are unable to fit in regular lectures/tutorials around your other work and family committments. Having regulated discussion periods, although very helpful in terms of content, is very difficult to keep up with when you are doing shift

work, trying to keep up with family and friends, etc. This is why most of us choose the online option of study. I firmyl believe online participation should be worth no more than 10% of the total assessment mark.

Response 4

- I find it unfair that 30% of the mard comes from online discussion. It is often difficult to get online and post an original answer. I work long hours and I cannot study during the day. I would often find that by the time I could get to the discussion board, there were already multiple answers to each question and as such it was difficult to post an orginal contribution. There are people who tend to be over-represented in the number of posts they do and this limits chances for other people.
- I found it frustrating that I could only look at the discusison in the evenings and often many of the same people had already posted.
- It is often difficult to access library resources.
- I would if a lower component of the mark came from the online discussion, as I feel this is not a very open and repeatable form of assessment.
- The postings seemed to be dominated by the same few people.

Response 5

- After students understood what was expected and required, post Topic 2, the discussions seemed to go well with everyone contributing different and appropriate postings making for an interesting learning experience.
- My expectations as outline in the journal entry were met quite well. I felt that the two discussions moderated by Brad were particularly good in terms of moderator feedback, however, on the whole, the other moderators provided feedback. Some moderators are a little inconsistent with their postings so it is difficult to anticipate when they will contribute next. I think consistency and regularity of feedback aids in a flowing discussion.",
- Certainly the online lectures are useful and a good start to each topic. However, to contribute an informed and appropriate posting, some wider reading is a great help and is reflected in the quality of the posting.
- This is my third or fourth opportunity at online discussions.,
- Most people attempted to post something different to what other members had previously said and most tried to link their postings in with the flow of discussion.
- I think the fact that only 2 postings were required for each topic meant that students were more focused on the best marks possible for each posting rather than creating a full discussion. In previous subjects online I have felt the group interaction was better.

Response 6

- Free text questions not answered

Response 7, Group 3

- Moderator got involved and kept things moving along so discussions weren't repetitive and/or stagnated which made them much more enjoyable. Very important otherwise they can become quite tedious.
- Course gives a good foundation to [topic]
- Emily was a great tuto and moved things along. She let us know at the beginning that she wanted us to build on each -others ideas and how many subquestions to answer in each thread. She then brough each question together at the end summarising which was good.
- Listen to lectures and read recommended reading. If you did that, online discussions posed no problem.
- There was a particular participant who dominated our group and was often quite tackless in his posts. I felt he should of been reigned in. I always dreaded going back to see my posts to see what he would nit-pick at next. The online discussions clearly show that several other students were also put out by his online demeanour. Perhaps when tutors see this happen, they could make a generally announcement that discussions must be tactful and respectful.

Really poor punctuation, spelling and flow amde some people's post really difficult to decipher and it is annoying and a waste of time having to read them.

- All good,
- Emily very helpful at all times, and would quickly answer any queries.
- Brad and Emily very helpful and always responded very quickly.

Response 8

- They provide an opportunity to briefly explore and tease out some of the key issues learnt in the lectures,
- This was my first experience with moderated discussions so not sure what to expect. The tutors guided each disscussion in a different way dependent on the topic.
- Felt unsure at times if I was answering question correctly there was not a lot of feedback.,
- ALready listen to the lectures and do the reading, also need to do some extra research into the answers use resources such as books etc for specific diseases.
- Some of the time,It was frustrating at times as there were limited questions to answer it was very annoying when people answered all of the question and posted more than twice. This did improve as the weeks progressed and more specific questions were asked as well as multiple questions.,
- The odd comment was made but the discussion was still very structured I guess because we were being assessed they were still formal interactions.
- SOme obviously better than others and really made you think

Response 9

- The term 'learning' is used - but I would think the more appropriate term is 'accuracy'. Learning from student postings is an interesting concept by definition. Students are students - there is no way that I know whether wat another student says is accurate or a correct interpretation of source material short of chasing them down to get source details and then corroborating or other each posting by x students x 2 postings or more each. Not practical.
The facilitator entering the discussion periodically to make a couple of comments and issue next questions does not provide any indication of prior postings' accuracy or content.
Therefore, do I accept what a peer student says as truth and rely upon that if I tae (and use) the information they provided in another environment?
- Too detailed an answer required and I do not have the time
- Comfortable:
1. Ease of access (time, day, location I am in) Uncomfortable: Nothing 'uncomfortable' but the constant monitoring on a daily basis to see when facilitator issues next question(s) and attempting to get in ahead of other students so that my content is not seen as merely repeating what others have put and possibly being penalied in assessment grading
- This totally depnds upon the questions asked / posed by faciliatator - and is very hard when the concept of future questions is apparently 'take lead or see where the discussion goes' - very hard to proactively prepare, always reactive hence time available to prepare a response is very short resulting in time pressures to get something posted prior to other students for reasons of possible regurgitating materiel already posted
- "Depends on topic and what online discussions supposed to achieve, assessment weighting - probably leaning to 'no'
- Can't really recall there contents without going back and re-reading - requires too much time",
- No student to student online (or offline) interaction. Does additional postings in response to another student(s) count towards your two maximium postings - if so then not really answering facilitator questions and hence penalised in assessment...

- Q21 is a very broad question allowing restricted response. Again made postings with no direct response from facilitator. Read his summary postings and questions
- Requirement of UOS. For previous modules of [unit] - with sequential distinct topics for modules and separate facilitators - why cannnot marks for previous modules be placed on webct under "My Grades' shortly after module finishes? We have absolutely no idea how went went in that module or how we are tracking during the UOS as to possible grade against assessment weighting. Do facilitators do them as they complete their module (contemporaneously) or just submit them weeks/months later when UOS ends - and do they just submit a mark on number of postings and lenth or actual quality of postings (practical versus theoretical aspects of how the task should be done)

Response 10
- The unit is quite useful. However, it mainly discussed about epidemic in Australia. As we are from several countries, it must be better if they introduce more epidemics internationally.
- Sometime we did not really know when they put the question online.
- Reading and listening the lectures. Searching more information from the internet.
- I think we are supporting each other to achieve as much knowledge as possible.

Response 11
- its good as long as,discussion on time
- unexpected alerts,
- they were excellent

Response 12
- I have learnt alot personally from the online discussions .This course is far much better structured to facilitate excellent learning from the student as compared to other online courses i have come across.
- All my expectations were fully met.
- I did not at any time felt uncomfotable
- One has to know the topic very well.,With the way and the structure of this course i will be more than happy to do so.
- Most people did good postings but they were times people would go abit out of topic.
- My interaction with other group members was good all the time.,
- All the moderators were very professional and maintained a good a flow of the topic.

Response 13
- Max of 2 messages per person was great. It meant that you could keep up with all discussion and there were not a few people dominating all discussion,

Response 14
- I felt very unmotivated to participate in the online tutorials. The online groups should have been smaller. It is annoying to get online and find that the questions have been answered. It is an ineffective learning tool. The purpose of having face-to-face tutes is to generate discussion and ideas. There was no interaction between students. Students only participate in a capacity that is conducive to getting their 15% participation and are not interested in interacting with others
- I never felt comfortable,
- There was no interaction with others, therefore no motivation to participate in the class.

- Face-to-face lectures where the lecturer actually gives us their time and knowledge. The online lectures are read off a sheet and don't give much extra information, explanation, or provide us with the opportunity to ask questions and for clarrification. Really poor standard.
- No. And I will be recommended to other students never to take this course or any other online course

Response 15
- It is good to hear other people's opinion on subject topics.
- expectations met,
- time limit on submissions,
- Information on scenarios given,
- Learnt a lot from their clinical experience and opinions,
- We learnt from each other

Response 16
- The discussion work better when the moderators pose more questions more regularly and there is daily progress in the discussion. One problem with the discussion was that I would often arrive to find 8 people had already answered the question, and then there was a 2 day lag til the next questions. The best discussions were when the moderator was responding to the discussion with about 2 new questions every day
- Expectations were generally met.,
- Always felt comfortable. I was sometimes frustrated when there were no new questions to respond to, or if all 4 questions were posed in the first 3 days. It meant that if I was working on the weekend I basically arrived on Monday and could barely respond to anything
- Listening to the lectures
- Usually very good and sometimes very detailed. Some postings were frustrating because people would try to answer every aspect of the question rather than one point. This closed discussion opportunities for people who came to the discussion later,
- There was only minimal interaction in the group I think,
- Comments made earlier about having more questions and for moderators to respond more regularly,It was good when the moderators summarised the discussions at the end with the key points

Response 17
- I found that these were difficult to contribute to as someone who works full-time as the posts were often during the day and by the time I got home there were already a lot of replies. Also it was really frustrating that a lot of people posted more than 2 posts per week, increasing the difficulty of posting something new.
- Once you have listened to the lectures and done some of your own reading it is not too difficult to contribute.
- yes, but I would like them to not be worth as much of the mark

Response 18
- It was good but I think face to face discussion could be more active.,It covers almost most of my expectations
- Because this way of learning is new way for me so I feel sme of uncomfortable in the biginnig.,
- Most of it is good points and related to the main points of the module. Also, it reflects the variety of experiences in each member.
- Because there is no face to face discussion and we don't mate each other, so I couldn't make a relations between most of them and just those who had another subject with me, I made a relationship with them.

- It was a good discussion.,
- Could you think next time to add some sort of face to face workshops or tutorials, even 3 days per semester

Response 19
- Though the discussions were good for learning, as a full-time student, I found that its pace was too fast for me at times. I frequently found myself logging in to see a large number of postings and it was difficult to contribute fully because the discussion had moved forward substantially. This made it difficult at times because I just had to absorb all the information really quickly and contribute as best I can with what I have to say before we moved on to the next topic in the discussion.
- I have done 6CP online based units before, but I found the pace in this unit was way too fast for me to learn things as much as I can.
- unpredictable number of posts - often too many --> too much info. to absorb and respond to promptly.
- unsure of what was expected in our responses. Also, sometimes some students went over the word limit and/or covered almost all the main points so it was difficult to contribute more until some feedback was given.
- Reading relevant case-based materials off websites, journal articles, etc.
- generally good. I did learn from others
- informative but too wordy at times - covering most of the main points.
- I found that atmoshpere for discussions was too formal. Maybe it's because most of us don't know each other at all. I didn't experience any problems with people during discussions though.
- Overall, I felt that there was a certain level of familiarity/working knowledge required with communicable diseases in order to contribute well. I found that most of the students had previous work experience with or are currently working in this field, maybe that's partly why I was getting lost at times.
I realli liked the range of topics covered in this unit though - it was very very informative and formed a starting base for me with learning the many different concepts.

Appendix 1.3 Case 1 Thread chronologies

These tables list individual posts in their threads, by date, time and author of the message. Branching into sub-threads is not tracked in these tables (see Appendix 1.4). Posts are also labeled with the running number as provided by LMS, as used throughout this study. Note that for reasons of space, samples of thread chronologies only are shown from the discussions studied, namely M1G1, M1G3, M3G3, M6G3.

Module 1 Group 1

Moderator: Dr Iverson

Date	Thread 1 Scenario 1, message 1	Scenario 1	Scenario 1, Message 2	Scenario 1 Message 3	Scenario 1 Message 4	Scenario 1 Message 3	Scenario 1 Last message
2 Aug							
	Mod 9.24 [1]						
	Mod 9.37 [2]						
	Lyn 10.44 [3]						
	Lyn 10.50 [4]						
	St D 18:58 [5]						
3 Aug							
	St II 10:51 [6]						
	Simon 12:21 [7]						
	Abdul 14:42 [8]						
	Jiang 21:12 [9]						
	Jane 21:52 [10]						
	St E 23:08 [11]		Mod 22:19 [15]				
	Sonya 23:09 [12]						
4 Aug							
			Liqin 01:03 [16]				
			Student II 11:22 [17]				
			Lyn 16:15 [18]				
			Student N 17:06 [19]				
		Student TT 22:37 [31]	Student M 17:12 [21]				

Module 1 Group 3; Moderator – Dr Carpenter; Mod 2 = Dr Markham								
Date	Tutor introduction	Qn 1	Qns 2 and 3	Note from Dr C	Discussion and qn 4	Qn 5	Qn 6	Final post
31 July								
	MOD 20.54 **Post 1**	MOD 20.56 **Post 4**						
		Student HH 23.10 **Post 24**						
		Student HH IDENTICAL 23.33 **Post 5**						
1 Aug								
		Student OO 7.37 Post 6						
		Student FF 12.04 Post 7						
		Student FF12.05 Post 8						
		Liz 13.41 Post 9						
		Student JJ 15:02 Post 10						
		Chun 15.40 Post 12						
		Student P 20.07 Post 13						
		Student P 20.13 Post 14						
2 Aug								
		Gitali 12:04 Post 16						

Case 1 Module 3 Group 3 Moderator: Dr Carpenter

Date	Scenario and first qns questions	Next question from [mod]	Third tutor post	Three more tutor questions	Last question from (mod)	Last tutor post
29 August						
	MOD 10:04 [1]					
	Lee 11:40 [2]					
	Mingyu 13:40 [3]					
	Student EE 13:43 [4]					
	Student SS 14:31 [5]					
	Student HH17:04 [6]					
	Student QQ 17:32 [8]					
	Student NN 18:04 [7]					
30 August						
	Sam 00:47 [9]					
	Student FF 18:44 [10]					
	Student PP 19:12 [11]					
31 August						
	Gitali 16:30 [13]					
	Liz 17:14 [14]	MOD 22:38 [18]				
	Student FF 22:42 [15]	Student FF 23:16 [19]				
		Student HH 23:50 [20]				
1 Sept						
		Student EE 08:16 [21]				
		Student PP 12:14 [27]				
		Student QQ 15:32 [22]				
		Sam 23:20 [28]				
2 Sept						
		Student KK 0:36 [29]				
	Feng 01:47 [16]	Feng 01:53 [30]				
		Lee 14:08 [33]				
		Lee 14:13 [24]				
		Student OO 16:12 [25]				
		Student OO 16:19 [23]				
	Student JJ 16:28 [12]	Sam 17:28 [26]				
		Student JJ 17:28 [34]	MOD 18:15 [38]			

Module 6 Group 3 Moderator: Dr Carpenter

Date	Scenario and first qns	Summary and qn 2	Aust epi	Other info	Discussion and qn 3	Refs	Summary and another qn	Qn 5	Don't forget	Qns 6 and 7	Discn and qn 8	Sum-mary	Yippee!
17 Oct													
	MOD 19:20												
	Student HH 21:04												
	Lee 23:27												
	Lee 23:30												
18 Oct													
	Gitali 00:54												
	Sam 16:34												
	Student JJ 18:33												
	Student EE 20:46												
19 Oct													
	Student S 01:06												
	Lee 02:12												
	Lee 02:27												
	Lee 02:36												
	Student												

Date														
	NN 10:55													
	Student NN 11:04													
	Student SS 12:20													
	Student EE 11:46	MOD 20:09												
	Student JJ 21:05	Student FF 22:02												
	Student JJ 21:21													
20 Oct														
	Student OO 11:27	Student NN 14:39	Student S 02:59											
		Mingyu 15:27	Sam 14:47											
		Student FF 20:49		Chun 16:18										
				Student NN 21:53										
21 Oct														
	Student QQ 13:55	Lee 03:28		Lee 03:16										
	Lee 15:44	Lee 03:29			MOD 07:13									
	Lee 15:54	Student EE 12:19			Student HH 12:45									
					Lee 15:49									

Appendix 1.4 Case 1: Thread maps for selected discussions

Case 1 Module 1 Group 3

Case 1 Module 1 Group 3 Discussion structure
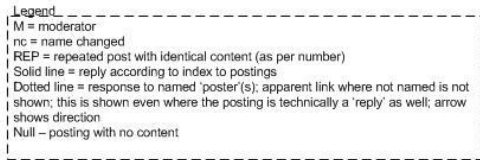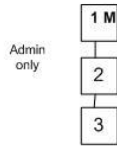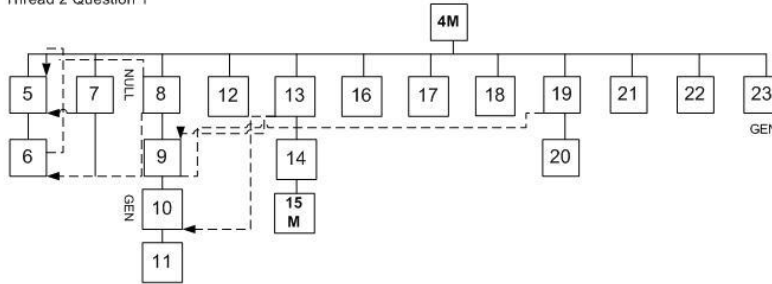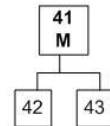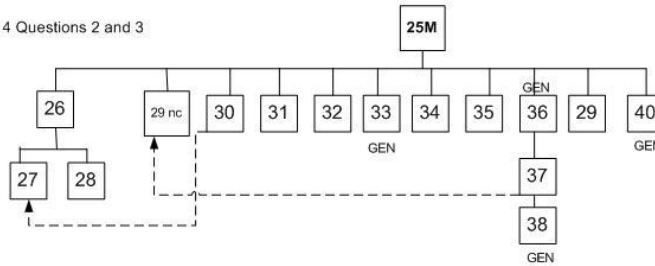
Case 1 Module 1 Group 1

Case 1 Mod 1 Group 1 Thread map
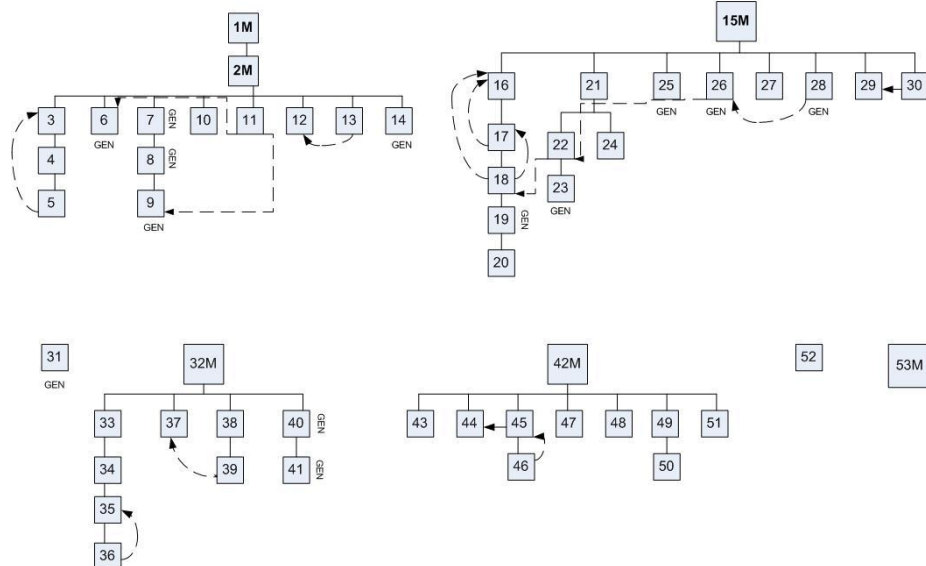
Case 1 Module 3 Group 3 Threads 1 and 2

Thread 1

Thread 2
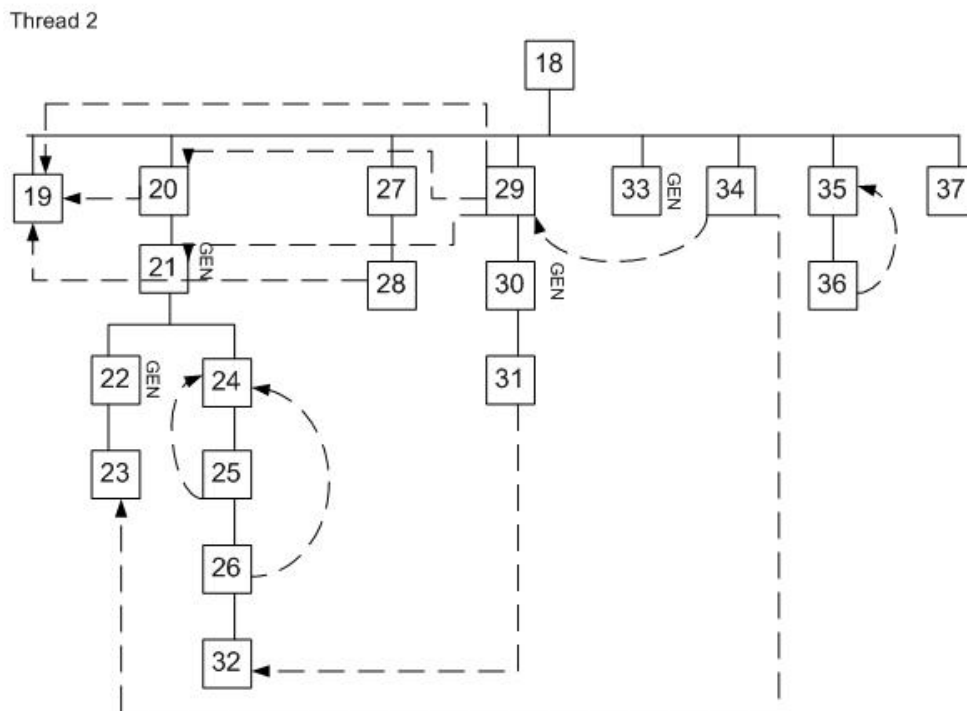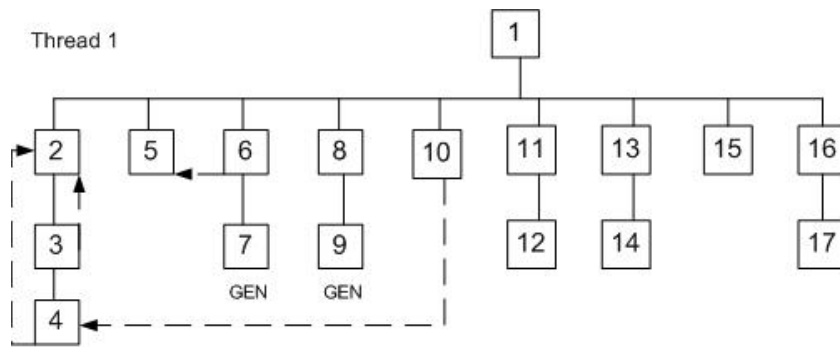
Appendix 1.5 Case 1 Sample Exchange Structure Analysis

Note: this is a sample only of the exchange structure analysis, which attempts to identify regulative and instructional moves (Bernstein 2000) and in some cases linguistic service. For reasons outlined in the thesis itself, this proved not to be viable. These samples do, however, show the similarity in structure between the discussions and resemblance of all moderator posts to each other, and all student posts likewise.

ID	ESA	Reg	Text	Inst	Notes
[1]			*Subject: Scenario and first questions Topic: Threats #3: Group 3 Discussion*		
			Author: Emily Carpenter Date: 29 August 2008 10:04		
			Hi Group 3/		
	GR		and welcome to module 3./		
	GR		I hope everything is going well for you all. /		
	GR		Feel free to post a message /		
	K1		or email me with questions or feedback about the online discussions so		
	K1		far./		
	_____		Here is your scenario to work through, /		
	K1		[which is] followed by two questions to think about and answer on the		
	K1		weekend./		
			I know you are keen /		
	K1		but please only answer one of the questions below!/		
	A2:LS		_____		
	_____		So:		
			It is mid-summer, /		
	K1		two cases of encephalitis are reported from separate localities of the northwest		
	K1		of NSW /		
			and one of the patients has died./		
	K1		Both patients had complained of extensive mosquito attacks while working near		
	K1		the river or in wetland areas about a week earlier. /		
			The state authorities have been notified/		
	K1		but you are in charge of the local public health unit /		No close or signoff
	K1		and have to consider the prospect of an outbreak of arboviral disease.		
	K1		Question 1		
	hdg		What are the possible arboviral causes on this illness?/		
	Dk1		Question 2		

ID	ESA	Reg	Text	Inst	Notes
	hdg Dk1		What should be done to determine the causal agent?		

ID	ESA	Reg	Text	Inst	Notes
[2]	(K2/ A1:LS move complex)		*Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion* *Author: LEE Date: 29 August 2008 11:40*		No greeting Pick up mod question – answers it comprehensively but gives ideas for others to post
	K2		The potential causes include 1. Murray Valley virus, which can cause encephalitis. /		
	K2		However there has been no cases in NSW since 1974./		1 and 2 dependent on stem
	K2		2. Kunjin virus, which can cause non-encephalitic or encephalitic illness. /		Display features: lists – numbered and bulletted
	K2		However, encephalitis is relatively uncommon./		
	K2		3. Dengue fever can cause meningoencephalitis, /		
	K2		but currently north Queensland is the potential area with epidemic dengue virus in Australia. /		
	K2		Local transmission has not been reported in NSW for a long time./		
	K2		4. Japanese encephalitis in not endemic in Australia, /		
	K2		but there has been cases reported./		
	K2		I also considered Ross River and Barmah Forest viruses infections, /		
	K2		as they are the most common arboviral infections seen in NSW. /		
	K2		However these infections are not fatal, /		
	K2		and they normally don't cause encephalitis./		
	K1		This is the first post so I kept it broad./		
	K1		I also kept it relatively short so other people can contribute. /		
	K1/A2:LS (1 move)		We should probably discuss the following:/ -clinical manifestation -likely vector responsible -approach to investigation -further information (history) required -laboratory diagnostic criteria -Other possible causes if these aren't local transmission (eg returned travelers) Lee		Quoting moderator in thread 1
	signoff				

[3]			*Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion* *Author: MINGYU Date: 29 August 2008 13:40*		
			Lee has covered all the potential mosquito-borne viruses in Australia, / the possible vector responsible for arboviruses are…/		Reply Lee (2)
	K2/A1 LS move complex as list K2 K2 K2		Vector Arboviruses Culex annulirostris [Major inland vector] Murray Valley virus, Kunjin virus, RRV, BFV and Japanese Encephalitis Ochlerotatus vigilax [Major coastal vector] RRV, BFV Ochlerotatus camptorhynchus [Major coastal vector-Southern] RRV, BFV Ochlerotatus notoscriptus [Urban vector] RRV Aedes aegypti[Mainly North QLD, introduced in NT in 2004] Dengue/		
	K2 K2		Since the 2 cases are found in North West NSW, it is likely to be caused by inland vector./ However, coastal vectors are possible as well, especially from coastal travelers.		

Appendix 1.6 Case 1 Transcripts

This transcript contains the posts for the main Case 1 discussions studied, namely M1G1, M1G3, M3G3 and M6G3. They shown in the order in which the LMS transcript presents them. Where permission has been given for posts to be analysed, these are presented in full. Where consent was not given, the student identifier e.g. Student A is shown, followed by a brief summary (in italics) of the content of the post, to provide coherence and continuity.

Module 1 Group 1

	Case 1 Module 1 Group 1
ID	
1	Subject: Hello from Tutor John Iverson Topic: Threats #1: Group 1 Discussion
	Author: John Iverson Date: 2 August 2008 09:24
	Dear all
	First, apologies for logging in a little late (Saturday morning). Its my fault - I misplaced my password.
	Second, let me introduce myself. My usual job is Director, Commuciable Diseases Branch (CDB) at NSW Health. CDB coordinates activities of several local public health units (PHUs) across the state. PHU staff do the work of disease surveillance, investigation and control. In CDB we assist PHUs by developing the protocols for surveillance and control for various diseases, put together, analyse and report on statewide surveillance data, help investigate large or complex outbreaks, and help in training. We also try to develop tools to help prevent the spread of various diseases.
	Many of us (including your course coordinator [name]) were involved in fairly intense prevention, surveillance, investigation and control activities during the recent World Youth Day activities in Sydney (working round the clock in shifts to identify diseases with outbreak potential such as measles, flu, viral gastro and meningococcal disease so we could intervene early and hopefully avert outbreaks). We did get quite a few little outbreaks of flu, and sent teams out to the various accommodation sites to assess, counsel, administer antiflu meds, and initiate isolation and other control measures.
	All very interesting (and quite fun), and now that its over we need to evaluate how it went (using our epi skills) so we can learn for the future.
	Before working at CDB I was director of a PHU and before that an epidemiologist in Oregon, trained in the US CDC's Epidemic Intelligence Service and in NSW Health's fabulous public health training program, and before that a medical resident in Sydney.
	Communicable diseases control is a really fascinating area and it needs a sound epidemiological foundation (which makes it fun to study and practice).
	So hopefully over the next few days we can learn together using some examples.
	John
2	Subject: Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion
	Author: John Iverson Date: 2 August 2008 09:37
	Ok. Dr Iverson the tutor here again.

	Case 1 Module 1 Group 1
	Congratulations! You have just got a job in a pubic health unit as an epidemiologist. Just after you have been issued with your new security pass (to use the staff washroom) a GP from western NSW calls.
	She reports that an increasing number of her patients have difficult-to-treat skin infections, some of which are causing quite deep seated abscesses.
	What kind of things might be causing or contributing to these infections?
	Which of these things might have a public health concern and why?
	Please think broadly, but keep you answers brief.
	John
3	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion
	Author: LYN Date: 2 August 2008 10:44
	i will keep this very brief because there are many of us in the group. i will answer a part and maybe someone could continue it. But first of all i wondered what the doctor meant by "difficult to treat skin infections" could she elaborate, was the sign of infection still there or was it the symptoms or both. also where are the infection sites as this may give an indication of what type of infection she is dealing with ? eg scabies (sarcoptes scabiei) can cause itching from the mite droppings usually involving the genital areas, wrists, inbetween fingers etc. scratching removes the tops of the lumps causing open sores which can become infected (abscesses). Even after successful treatment for 7 days the itch can persist for weeks (hence why she may have felt difficult to treat). it is also important that clothing and bedding and others in the household etc are treated as well as the patient as scabies is highly infectious spread from person to person (less commonly through clothes and bed clothes)
4	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion
	Author: LYN Date: 2 August 2008 10:50
	do we need to add references???
	if so here they are
	www.health.qld.gov.au
	www.healthinsite.gov.au
5	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion
	Author: STUDENT D Date: 2 August 2008 18:58

	Case 1 Module 1 Group 1
	Agrees with Lyn and adds suggestion re community-acquired MRSA or a fungal infection such as ringworm.
6	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: STUDENT II Date: 3 August 2008 10:51 *Agrees with previous comments and provides more detail about the infections mentioned in the previous post.*
7	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: SIMON Date: 3 August 2008 12:21 Hi everyone, i tend to a aggree with what has been provusly said that we need to know more by what is meant by 'difficult to treat skin infections.' I also aggree that there are a number of microrganism that might be causing these infection and one would need more detail to ascertain what the infection is. There are a number of underlying factor that might be contributing to these infections in these patients such as the pressence diabeties, immunosuppression and poor nutritonal states and poor personal hygine. From a public health prospective one needs to consider there cases living conditions ie sharing towels and beding or states of hygine within there houses. Do the case live in close proximity to eachother ie in an aged care facility or boarding house? These are of concern because this might piont to an outbreak of disease within these locations and there might be other case that have not already been identified. Have the cases been recently been traveling or hospitalised? Do they swim in public pools? Once again this might point to an outbreak and might give some guidance towards a source.
8	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: ABDUL Date: 3 August 2008 14:42 Hi every one I agree with what was written before regards the type of infection might be. I don't want to repeat the same words . However; I want to see the issue from different prospective. After we received the call from GP, we should immediately start deal with the issue by the epidemiologist scientific way / and should not stuck in one step. Based on the investigation criteria , we should begin an investigation . First ,determining the cause of disease (source of infection)by different procedure ex, lab examination -mode of transmission-who is at risk –after the collection of all information. According the cause of we should start our prevention/control plan .As result , our success in control will be determined by our appropriate dealing and understanding to the main cause of disease
9	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: JIANG Date: 3 August 2008 21:12 In this situation, those patients have difficult to treat skin infection, I will think that probably causing by Staphylococcus aureus (Methicillin-Rresistant Straphylococcus Aureus – MRSA), Due to the infection is happen in the hospital, MRSA <u>can</u> be a sudden outbreak appear in hospital without any reason

	Case 1 Module 1 Group 1
	which can spread from human to human and also that MRSA is a very difficult to treat skin infection, if untreated immediately, sometime the bacteria can seated in the skin deeply and form abscesses. MRSA is very important in the nosocomial infection, it is because that MRSA can be spread out very quickly, hard to treat, the morbidity and mortality is getting increase compare to other common nosocomial infection. In 2007 Emerging infectious disease, a publication of the CDC, estimated that the number of MRSA infections treated in hospitals doubled nationwide, therefore, I realised that public health should concern about how the infection transmitted (by human or equipment)? How to prevent to spread it out (high contagious), making new medication method to decrease the infection (resistance drug). This is my opinion, how everyone reckon????
10	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: JANE Date: 3 August 2008 21:52 I would agree with what has been said. I think the information regarding patient risk factors such as other medications, history of other diseases/conditions (e.g obesity, diabetes etc), having being bitten by animals/insects etc would be very useful to help identify the cause of the infection and appropriate treatment (in the absence of lab confirmation of cause). I also think the relationship between patients would be useful to know and [ ] also whether other GP's are seeing similar things. This information would be useful to try and gauge the extent of the issue - it might be a point source or wider community issue.
11	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: STUDENT E Date: 3 August 2008 23:08 *Suggests further possibilities and ways of testing for them. Clinical details re MRSA.*
12	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: SONYA Date: 4 August 2008 23:09 Hi all, Some of these answers may have been provided, however I will also add my thoughts. Clearly my first response would be to gain more information. This would include, whether or not swabs had been obtained and whether or not results were available, what treatment had already been provided and failed and other specifics about the skin condition, how long had the infection been present, what the individuals may have been exposed to and whether or not any of the individuals shared a possible common source of exposure. Details on the site of infection, type of discharge, gender and whether the individual was an Aboriginal or Torres Strait Islander. I would also want to review surveillance data within the department in order to determine if there had been any other reports or other similar reports in the past, which may provide some leads. Community acqired MRSA is becoming more prevalent and this would be a possible cause of the infection. Thanks Sonya
13	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion

	Case 1 Module 1 Group 1
	Author: LIQIN Date: 5 August 2008 19:38 Perhaps i like to add on to Sonya's statement with my that once we could identify that this large group of patients having the same 1)strain of staph aureus for its culture and sensitivity pattern, 2) similar clinical finding eg. similar location of deep seated abscess on patients' body, 3) same population of the community and 4) disease trends of its starting to the peak (which the GP noticed now). We could interview this group of patients for their past history (timing from the starting of the first index case)to detect any similar activity or visiting of places that may cause the deep seated abscess. From there we can go down, and culture the site to see whether the organism is the same. (I quoted this as there were reports that show cultured done on water tap that proved to be MRSA and action was taken to replace turning taps to sensor taps or even tap operated by foot pedaling.) Instance happening in community also showed that one of the manicure and pedicure saloon caused fungal infection in customers when there was poor compliance of personal hygiene. Was thinking broadly,until you do a culture to confirm,you may never know whether the source of infection may or may not be coming from the toilet bowl's water jet washer for butt. Thus a speedy, tactful and thorough investigations need to be impose before it further aggravate into a major public health problem. Liqin
14	Subject: Re:Scenario 1, message 1. Topic: Threats #1: Group 1 Discussion Author: JANET Date: 10 August 2008 21:43 I agree with what has already been answered. I think that it would be important to find out the swab results if they had been obtained and whether the strains of infection are the same for each patient. Also it would be helpful to know what treatments had already been used to try and work out whether the infections are resistant to particular antibiotics/antiviral/antifungals that have already been used.
31	Subject: scenario 1 Topic: Threats #1: Group 1 Discussion Author: STUDENT TT Date: 4 August 2008 22:37 *Agrees with the what has been said and proposes questions to be posed to the GP so that the pathogen can be identified.*
15	Subject: Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion Author: John Iverson Date: 3 August 2008 22:19 Hi all You are on the right track. The infections could be caused by a number of things (most likely some sort of bacteria, like staph). In any communicable disease investigation its important to try to get a diagnosis early on. The GP could get samples of pus from her patients and send them off to the lab for testing. By identifying what the bacteria is, you can then read up on how it's spread, its clinical features and hopefully how to treat and control it. Where the same germ is causing an increase in infections in a community, then there is a public health concern because you will want to identify why

	Case 1 Module 1 Group 1
	the increase is occurring so that you can implement control measures.
	The GP reports that several of the patients have had their skin infections swabbed and tested at the local lab. It turns out that the patients all have infections with Staphylococcus aureus.
	Some Staph bacteria can be resistant to some antibiotics (some of you already mentioned this - MRSA is where staph have resistance to an antibiotic called methicillin (hence Methicillin Resistant Staph Aureus -- or MRSA). MRSA may also be resistant to other antibiotics too.
	Here a two questions for you:
	1. How does antibiotic resistance develop (note I am after the principle here - nothing too technical!)?
	2. How might you determine whether there is a problem with antibiotic resistance in the Staphylococcus aureus infections in these patients?
	John
16	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: LIQIN Date: 4 August 2008 01:03
	Antibiotic resistance (excluding technical part) develops when either one or some of these factors take place. 1)patient does not follow the full antibiotic regime of consumption example not taking it on time when started or stop taking half way thinking one has recovered. 2)It can also happen when inappropriate prescribing of antibiotic by the GP without checking antibiogram which is effective in killing the pathogens. 3)Transmission via poor hand hygiene in health care service area or tertiary old aged home.
	There is a problem with antibiotic resistance in the Staphylococcus aureus infections of these patients when the usual first line antibiotic like methicillin is ineffective in treating patient's disease. Example is Methicillin Resistant Staphylococcus Aureus (MRSA). Recently in my hospital, there have been cases of MRSA skin abscess deriving from community. What is even more interesting is that this group of patients from the community has no contact with hospital at all. Investigation led to findings that they were staying in an overcrowded living quarter, poor personal hygiene and perhaps inappropriate use of antibiotic.
	Liqin
17	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT II Date: 4 August 2008 11:22
	Agrees with Liqin and adds factors in developing countries which lead to antibiotic resistance. Also proposes that underlying chronic diseases which hamper healing need to be considered.
18	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion

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	Author: LYN Date: 4 August 2008 16:15
	thanks to the first two they seemed to have covered this question well. in the dept of health and ageing fact sheet on antibiotic resistance they discussed the concern of antibiotic resitant bacteria causign life threatening diseases to seriously ill people within hospital. but as Student ii pointed out the community are not isolated from this infection. also it discusses how the resistant organisms have been attributed to the overuse of broad spectrum antibiotics. however they also discussed there are some concerns regarding inappropraite vetinary use of antibiotics which may lead to development of antibiotic resistant bacteria which could in turn infect humans. maybe somebody with a bit more knowledge could elaborate or dispel this??????
	this fact sheet also talks about resistant bacteria may have gone through some type of mutation or gene exchange). this is about as technical as i will get.
	i assume these type of infections are swabbed and cultured and only then can you determine with resistance and sensitivity testing if they antibiotic resistant.
19	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT N Date: 4 August 2008 17:06
	Agrees with previous comments, adds information about the genetic basis for antibiotic resistance and implications of humans ingesting meat from animals who have received heavy doses of antibiotics.
20	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: JANE Date: 5 August 2008 17:28
	In theory the use of veterinary drugs could either lead to:
	1. resistant animal bacteria (which could transfer resistance to human bacteria later on)
	2. resistant human bacteria (if present in the animal at the time of treatment)
	3. residues of the antimicrobial in food products (which could cause development of resistance in human bacteria)
	There is debate about the contribution veterinary medicines have to the development of resistance by human bacteria. A number of studies have looked at resistance profiles in animal bacteria and compared them to human strains. From memory the overall conclusions are that veterinary medicines play a part, but this is likely minimal compared to the impact of antibiotic use for human medicine.
	Veterinary medicines are very well regulated in Australia, and the process involves input from experts in the antibiotic resistance field. However off-label use can and does occur.
21	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT M Date: 4 August 2008 17:12

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	Discusses means of ascertaining if there is a problem with antibiotic resistance
22	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT D Date: 4 August 2008 19:33
	Suggests means of limiting antibiotic resistance [cites journal article]
23	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT K Date: 4 August 2008 23:17
	Thanks others for great answers. Discusses two approaches to antibiotic resistance: biological and societal/ historical.
24	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT E Date: 5 August 2008 12:41
	Canvasses dangers of antibiotic resistance increasing.
25	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT TT Date: 4 August 2008 22:54
	Provides further detail on antibiotic resistance
26	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: MAHMOUD Date: 5 August 2008 01:07
	Hi all, I agree with the all above answers and I want to focus on what Bundu said about the importance of public health education in the usage of antibiotic and the antibiotic resistance because in some countries the patient become angry if the GP not prescribed for him the antibiotic , so he keeps going from GP to another until he get the antibiotic . Other thing that may be helps in antibiotic resistance, the absence of a clear policy or guidelines of antibiotic prescription in the medical care centers .
	Finaly, about the second question, I think that investigation such as blood culture & sensitivity could help the GP.
	Regards to all,
	Mahmoud .
27	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: ABDUL Date: 5 August 2008 01:25
	Antibiotic resistance is a world-wide problem but is worse in some parts of the world than others. Particular resistant bacteria can be a major problem in some countries but not in others; for example, vancomycin resistant enterococci (VRE) are a major problem in the USA but are not so in much of

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	western Europe. This can be explained by the intensive use of vancomycin in the USA over the past 15 years.
	However, widespread and extensive use of a particular antibiotic does not always lead to resistance. Cloxacillin, a member of the penicillin family of antibiotics, has been used by vets and farmers for almost 30 years to treat and prevent mammary infections in dairy cows at the end of lactation (dry cow therapy) yet resistance to cloxacillin is almost non-existent – even in bacteria such as Staph. aureus that are well recognised as being able to rapidly develop resistance to antibiotics.
	Many factors need to be taken into consideration and it is precisely because scientists do not fully understand how and why resistance develops that so much research is ongoing both in animals and man.
28	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: JANE Date: 5 August 2008 17:08
	Regarding the second question- others have already mentioned getting swabs tested, but parallel to this the GP could be trying a specific antibiotic to see if it works. Of course this may not be the most prudent use of the antibiotic but as Mahmoud mentioned the patient may be adamant that he/she be treated. I am not sure the details of strain ecology for Staph but the GP may know the current local strain and use an appropriate antibiotic for that hoping the strains are the same.
29	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: JANE Date: 5 August 2008 17:16
	Regarding question 1 (and because I am a technical person and because others have already effectively answered this)-
	Development of resistance can result when antimicrobials exert selective pressure that leads to the creation, amplification, dissemination and persistence of antibiotic resistance mechanisms. Antibiotic resistance is dependent on the relationship between a given bacterial strain, the particular antibiotic and the concentration of that antibiotic.
	Resistance can be either intrinsic or acquired (mutation or DNA transfer) and a simple change may lead to resistance to several different antibiotics.
	Mechanisms for bacteria to combat antibiotics include limiting the intracellular concentration of the antibiotic by reducing influx or increasing efflux, modification or neutralisation of antibiotic (reversible or irreversible), alteration of the target so the drugs no longer interfere with it or elimination of the target altogether.
	It is important to note that mutations and gene transfer happen independently of antibiotic use. It is also interesting that resistance can be passed from normal flora to pathogens.
30	Subject: Re:Scenario 1, message 2 Topic: Threats #1: Group 1 Discussion
	Author: JIANG Date: 6 August 2008 00:48
	I agreed the point of view arise from previous, I reckon that antibiotic resistance can be caused by 1. The evolution of the organism (stronger than last

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	generation), 2. the mutation species (the same species but with some strategy such as enzyme destroy antibiotic) 3. increasing used of different antibiotic (main reason for drugs resistance in hospital).
	I also agree that if the 1st line of drugs cannot kill the S. aureus (methicillin), it can be suspect that antibiotic resistance, in this case. We can suggest that the laboratory technician use PCR to confirm about the test
31	Duplicate
32	32 Subject: Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion
	Author: Dr Iverson Date: 5 August 2008 22:06
	Dear all
	You seem to have covered the issues.
	Antibiotic resistance develops when those bacteria with some natural degree of resistance to the antibiotic get selected for, as those bacteria that are sensitive to the antibiotics are killed off. Its survival of the fittest. Bacteria may acquire resistance genes from other bacteria by swapping genetic material through things called plasmids or phages. This can happen when different bacteria coexist, eg, in the guts of people or animals, and can then be passed onto other people or animals. The more antibiotics are used in people and animals, them more likely this is to happen.
	So, if you treat an infection with an antibiotic to which the bacteria is sensitive for long enough, then the antibiotic (along with the host's immune system) will kill the bacteria so none are left. But if you don't use enough of the antibiotic, then some bacteria that have a tendency for resistance may survive and so future generations of bacteria will have resistance too.
	Now a question about surveillance. How might you determine the extent of any S aureus antibiotic resistance in the community, the area of the state and beyond? (ie could MRSA be widespread? How would you find out if its a big or small problem?)
	Keep your answers brief.
	Dr Iverson
33	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion
	Author: JANE Date: 6 August 2008 11:33
	The two obvious ways to get an idea of the extent of the problem are to:
	1. look at existing data and information from local, state, national and international sources- this includes published articles and unpublished data (e.g. surveillance program data) and information from hospitals, public health units, veterinary units, laboratories, health departments, media etc; or
	2. to collect relevant data- through targeted surveys or longer term surveillance programs
34	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion

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	Author: STUDENT N Date: 6 August 2008 13:55 *Mentions article on surveillance of MRSA in South Australia, as an example of how to undertake this task.*
35	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: SONYA Date: 6 August 2008 23:24 Good thinking Student n and this certainly clarifies Janes point re investigating the extent of the problem outside of NSW or the immediate community. I found an interesting article on WA - "Disease Watch - January 2008 edition. They discuss the increasing prevalence of community acquired MRSA and discuss in particular the PVL strain which presents with infected skin lesions/abcesses. I would focus my surveillance on lab reports and GP's as most peopel in the community would present to the GP in the first instance, emergency rooms would also be another focal point and community health centres. The BEACH report may be useful for this. Of concern is a lack of education of wounds not being swabbed at first presentation and therefore ineffective treatment and continual spread of the infection.
36	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: SONYA Date: 7 August 2008 11:55 Further to my point, I would also consider modelling of community acquired MRSA in order to determine the potential of spread and hence aid our decision making about where/how surveillance should be conducted
37	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: STUDENT TT Date: 6 August 2008 23:02 *Difficulties facing community surveillance for MRSA resistance.*
38	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: STUDENT A Date: 6 August 2008 23:18 *Points for determining MRSA in the community.*
39	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: STUDENT C Date: 7 August 2008 00:07 *Stresses that studying and combating MRSA needs to be extended to the community.*
40	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion Author: SIMON Date: 7 August 2008 17:01 Hi all i agree with what has already been said. We need to consider both published and unpublished exsisting data on the incodence and prevelance of

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	MRSA in the community. There needs to be targeted survalance involving labs, GP"s, ED, and community health centers in which all these centers are urged to report new and current cases of MRSA. Send out infomations to the above mentioned regarding MRSA, the need for testing and reporting. Run education sessions. Ask doctor to take swabs/samples when sucipicus cases present to confirm diagnosis and commence appriate treatment.
41	Subject: Re:Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT K Date: 7 August 2008 20:43
	Agrees with previous 'great' comments. Discusses resource implications of MRSA screening.
52	Subject: Scenario 1, message 3 Topic: Threats #1: Group 1 Discussion
	Author: YINYU Date: 9 August 2008 23:03
	About antibiotic resistance, is it a real threat for human being? The development drug resistance of microorganism is a natural selection action. Because of antibiotic use, the bacteria/organisms have to struggle to survive in this hazardous environment. Acquirement the ability of drug resistance is essential for their living. Since the antibiotic resistance developed, the physicians have no choice to use newer or stronger antibiotic leading to the development of new drug resistance. Compared with other causes of death, the death rate of antibiotic resistance is not high. Furthermore, new drug development, research on the mechanisms/courses of exhibition of resistance to antibiotic and the consensus of antibiotic use may contribute to the reversing resistance. Undoubtedly, antibiotic resistance brings adverse effect on mankind; it is not a crucial problem. To determine the extent of any S. aureus antibiotic resistance in the community, it is necessary to collect the information such as case number from the health care units and the laboratory data (the IC50, MIC and etc) for the suspected microorganism. And then it is necessary to monitor the incidence and the distribution of the similar case in order to determine the spreading.
42	Subject: Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: Dr Iverson Date: 7 August 2008 21:27
	Hi all
	You have raised good points. MRSA may be notifiable by law in some jurisdictions but this is not usually the case. So to assess the extent of any MRSA problem in most jurisdictions you will need to: 1. gather data from labs in the area of concern, 2. look in the literature for studies done on rates of MRSA in specific settings, and/or 3. establish new surveillance systems.
	Option 2 is fairly cheap - but studies may not have been done, or may be out of date, or may have other limitations.
	Option 1 is more expensive, and relies on the good will of lab staff.
	Option 3 could be expensive and would require careful design and good will among clinicians to take samples and labs to analyse them and report them (if that's what you chose to do).
	As some of you pointed out, MRSA is often thought of as a hospital infection, but in fact increasingly we are seeing cases in the community with no

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	hospital links. It turns out that in this instance, none of the patients are linked to a hospital. They all have community acquired MRSA. Now some more questions: 1. If you found there was a problem with community-acquired MRSA in the community: - how might you determine who is at risk? - what sort of control actions might be worth considering? - how would you implement them? - How would you know whether they have worked? Only answer one question each, but make sure that you chose to answer one that most other people have not yet answered (ie, get in early and you have more choice of which one to answer). John
43	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion Author: STUDENT A Date: 8 August 2008 00:26 *Describes populations at risk of MRSA.*
44	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion Author: SIMON Date: 8 August 2008 11:04 The control measures might be as follows: - Community education about good personal hygiene ie hand washing, not sharing towels etc. - Address issues of overcrowding reduce spread. - Put in place measure to ensure that those with known open wounds and sore keep then covered, have them properly diagnsed through swabs and appropriatly treated with sensitive antbiotics. -Identifying those most at risk ie diabetics, poor nutrition etc try to address these issues, screan then for infection and treat them early. - Educate the comunity and remind doctors about avioding the over use of antibiotics. - Ongoing survaillance.
45	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion Author: MAHMOUD Date: 8 August 2008 20:21 Hi all,

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	My colleague Simon write about the measures to control the risk, and he mentioned the community health education abuot personal hygien as one of it
	I will answered the 3rd question about how to would we implement that measured on focusing to the personal hygien as an example .
	Educational outreach with interactive small group workshops of personal hygien and hand washing will be most effective to implement our measures . We can use any learning methods or module that designed for community education such as SCORPIO (a medium for competency-based learning founded on : small group, student-centred, multi-disciplinary teaching or any usefull method.
	Regards,
	Mahmoud.
46	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: JANE Date: 8 August 2008 21:18
	I may as well talk about how we could determine whether Mahmoud's hygiene education strategy worked.
	First we could look at the numbers of new cases of community-acquired MRSA and see if they were falling. However it would be difficult to determine whether any fall in cases was a result of hygiene education, some other strategy that we have implemented or a result of the epidemic just dying out naturally.
	We could also restrict our analysis of cases to those areas of the community who have attended our hygiene workshops- again problematic in assigning cause and effect.
	We could conduct a qualitative survey asking a proportion of the population about their personal hygiene practices before and after the MRSA outbreak. If their habits havent changed but the number of cases is declining then it is unlikely that better hygiene practices was the cause. Again we could restrict this to targeted subpopulations if needed.
	We could also go out in the community and look at the actual practices. It would obviously be harder to compare before and after the outbreak in this instance, but we could find a 'control' group (i.e. a similar group of people outside the outbreak area etc) to compare with.
47	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT D Date: 8 August 2008 21:11
	Ways of ascertaining whether MRSA control measures have been successful.
48	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: DAVID Date: 9 August 2008 23:08
	Question 1.
	If it were a hospital source of infection then investigators / case follow up and surveillance from known locations would be easier. As these are NOT

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	from hospitals (known locations and transmission vectors / patients and/or staff) the staff effort and mechanisms required to determine source(s) and who may subsequently be at risk must have a different focus.
	Surveillance systems need to have a wider focus, originally be more non-specific and 'sensitive'. All possible cases / instances (which could then be 'reverse' investigated to possible sources) need to be found and considered with an open mind; pre-conceived hypothesis must be discarded. Staff would need to tie in with Environmental investigators, rather than maintaining a purely 'patient' only approach re source.
	Cases or possible sources should be given to epidemiologists in an effort to identify possible clusters, locations, and vectors (locations, time, social events etc) in an effort to identify source 'pools'.
	Laboratory analysis of samples to identify MRSA strain(s) must occur and any data correlated against epidemiological output to see if any strain may be conducive to any particular group of population based on genetic, socio-eco status, cultural (food prep practices, festivals, living arrangements, hygiene etc)
49	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: YINYU Date: 10 August 2008 01:29
	I would like to share pieces of information for the question 1
	the high risk group of community-acquired MRSA should include intravenous and inhalational opiate drug abusers (El-Sharif and Ashour HM, 2008)and children (Nourse C, Starr M, Munckhof W, 2007), homelessness and incarceration (Gilbert M, et al, 2006)
	1. El-Sharif and Ashour HM, 2008, ACommunity-acquired methicillin-resistant Staphylococcus aureus (CA-MRSA) colonization and infection in intravenous and inhalational opiate drug abusers, Experimental Biology and Medicine, 233, 7, p874-880)
	2. Nourse C, Starr M, Munckhof W, 2007, Community-acquired methicillin-resistant Staphylococcus aureus causes severe disseminated infection and deep venous thrombosis in children: literature review and recommendations for management, Journal of Paediatrics & Child Health, 43(10), p656-61
	3. Gilbert M, MacDonald J, et al, 2006, Outbreak in Alberta of community-acquired (USA300) methicillin-resistant Staphlococcus aureus in people with a history of drug use, homelessness or incarceration, Canadian Medical Association Journal, 175 (2), 149-54
50	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: JANET Date: 10 August 2008 22:00
	I agree - the high risk groups with MRSA as well as most infections are the young and the old. It would be helpful to know whether there is any such link in this patients group (eg nursing home or child-care centre) and this would make surveillance easier by watching those in the same place. It would also mean that the GP or lab could try to follow-up each patient and check they had taken the antibiotics and had appropriately negative follow-up swabs.
51	Subject: Re:Scenario 1, message 4 Topic: Threats #1: Group 1 Discussion
	Author: STUDENT C Date: 10 August 2008 08:44

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	Implementation of control measures
53	Subject: Scenario 1, Last message Topic: Threats #1: Group 1 Discussion
	Author: Dr Iverson Date: 10 August 2008 14:02
	Hi all
	You have generated some great ideas.
	As some of you mentioned, the control of antibiotic resistance, especially in bacteria like MRSA, can be very difficult, in part because its hard to get people to change their long standing behaviours that might help prevent its spread, like handwashing. (Its hard enough to get health care workers to wash their hands let alone other people in the general community who may be even less motivated.)
	Also, because there is a lot of asymptomatic carriage of MRSA, any cases identified (e.g., because they have pus infections) will be the tip of the iceberg and so eradication will be very difficult. Indeed some recent studies have not shown much effect on disease rates even when you treat everybody (cases and non cases) in relatively closed settings such as military barracks.
	Part of the long term solution may also be to try to limit the use of antibiotics to those who need them. This involves education of doctors to resist prescribing antibiotic for viral infections (like many sore throats or the flu) since they don't work for viruses. But doctors are under a lot of pressure to give people pills to treat afflictions (from patients as well as drug companies) so again, changing these behaviours (doctors' prescribing habits, patients' pill-seeking behaviours, and drug companies' marketing behaviours) is a real battle.
	You have covered the principles of control - well done.
	Talk to again in the next scenario.
	John

	Case 1 Module 1 Group 3
Exchange ID	
1	**1** Subject: Tutor introduction Topic: Threats #1: Group 3 Discussion Author: Dr Carpenter Date: 31 July 2008 20:54 Hello group 3! Welcome to your first module, "Population threats 1: overview and introduction". My name is Dr Carpenter and I will be group 3's tutor for all of the modules in your Communicable Disease Control course. I work as a lecturer here in the [department], where my main job is coordinating the [program]. I am also a graduate of the [degree], so I have a feel for what you are in for. In my life "before public health" I was a [health professional] physiotherapist and worked in various hospitals and private practices in [countries]. I have been reading your introductions –between you all, group 3 has a wide range of skills and experiences and I am looking forward to hearing what you all have to contribute to the discussion. I will be posting the first question tonight as I travel overseas tomorrow morning for 5 days. However I will be logging in daily to see how your discussion is progressing and I will be posting further questions once you have explored the first ones fully. I am also contactable by email: Dr Carpenter@...... should you have any problems. Just a reminder that posts should be limited to 200 words, and you should all post approximately twice per module (which will give everyone a chance to contribute). The discussions are assessed and contribute towards your final mark. So good luck, and enjoy! Dr Carpenter
2	**1.1** Subject: Re:Tutor introduction Topic: Threats #1: Group 3 Discussion Author: Student ee Date: 3 August 2008 18:09 *Administrative question*
3	Subject: Re:Tutor introduction Topic: Threats #1: Group 3 Discussion Author: Dr Markham Date: 5 August 2008 00:56 Student ee As you have most likely worked out by now, there will be a number of questions within each module, but you are only expected to answer two of them. This is to avoid a few students dominating the discussions, and give all students a chance to contribute. Dr Markham

	Case 1 Module 1 Group 3
4	Subject: Question 1 Topic: Threats #1: Group 3 Discussion Author: Dr Carpenter Date: 31 July 2008 20:56 A GP from western New South Wales calls you. She reports that an increasing number of her patients have difficult to treat skin infections, some of which are causing quite deep seated abscesses. What kind of things might you be concerned about?
5	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student hh Date: 31 July 2008 23:33 *Need to identify the cause of the disease, treatment already given and mode of transmission.*
24	*Subject: Re: Question 1 Topic: Threats #1: Group 3 Discussion* *Author: Student hh Date: 31 July 2008 23:10* *Post 5 duplicate*
6	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student oo Date: 1 August 2008 07:37 *Adds to Student hh's post – steps to confirming outbreak or epidemic as opposed to chance event, and identifying risk factors.*
8	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student ff Date: 1 August 2008 12:05 *Agrees with Student hh has made – additional avenues for determining the cause and extent of the outbreak.*
9	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Liz Date: 1 August 2008 13:41 I think that the first step in the investigation of the potential outbreak is to classifly what constitutes a case. A 'skin infection' is a very broad term and will encompass many conditions. Perhaps a case could be a skin condition resulting in an abscess? Once a case is defined it would be important to get information from other sources where people may present, ie other GPs, local hospitals. Rates of infection and abscess could be compared with historical data to confirm whether there was an increased incidence of skin infection resulting in abscess. It would also be important to liase with local pathology centers to see if they had noted any recent trends in terms of microorganisms.
10	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student jj Date: 1 August 2008 15:02 *Explores implications of "Difficult to treat". Confirms responses of others.*

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	student gg missing – see below
12	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
	Author: Chun Date: 1 August 2008 15:40
	Firstly, we should confirm whether it is a communicable disease. Obviously, it is a communicable disease because every patient has skin infections and some of them have the same symptom-seated abscesses.
	Secondly, I will call the GP to ask some relevant things about this skin disease such as demographic character, occupation and the exact number of the patients. After that, I will ask other GPs in western NSW to check whether it is common in that area. Additionally, I will ask patients directly about this disease such as chemical exposure history, whether going to public swimming pools or long exposure to sunlight.
	Thirdly, I will collect the inner substance of the seated abscesses to do some lab test. Meanwhile, all the suspicious case should be sent to the professional doctors to define.
	Fourthly, I will check the expected number of this disease compared to the true number of patients of western NSW and get a conclusion whether it is an outbreak.
	Finally, I will use some epidemiological methods to investigate the reason of this disease and support some proposals to the public health unit, government or some other decision-maker and policy-maker.
13	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
	Author: Dummy Student (p) Date: 1 August 2008 20:07
	Case definition needed; suggests tests, data collection and surveillance.
14	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
	Author: Dummy Student Date: 1 August 2008 20:13
	Student introduces self in light of online name.
16	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
	Author: Gitali Date: 2 August 2008 12:04
	hi,im gitali,well i think ,gp should take complete history of patient ,whom she come across.
	including general history:- name age,sex,residence-full description of location,religion or custome.
	present history:-of disease past history of contacts or disease such as diabetes milletus,hypertension,tuberculosis or post=opertivs h/o, social history(h/o of exposure in contacts),occupational history of every patient, sexual history:-sexual exposure. immunisation history.:-immunised or not. with proper general examination & systemic examination. on local examination of skin ,collection of swab or discharge from skin infection should be taken and sent to laboratory for investigations. after investigation gp should give the number of reports to epidemologist for general survey

		Case 1 Module 1 Group 3
		exposure of disease in particular locality.
		after proper investigation & thorough survey will help to eradicate disease.
17		Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
		Author: Gitali Date: 2 August 2008 12:27
		i think if gp is observing increase number of cases everyday,
		she should make a record of similar cases, by classifying them
		into age , sex,past history of diease, locality ,classification according to symptoms and investigation showed positive results. that she has to submit epidemologist to trace mode of transmission.
18		Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
		Author: Student gg Date: 2 August 2008 18:09
		Numbered list of steps to be taken.
11		Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
		Author: Student gg Date: 2 August 2008 18:24
		Further suggestions for GP actions
19		Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
		Author: Student ee Date: 2 August 2008 21:33
		Detailed description of each patient needed to define a case description. Lists six standard steps of outbreak investigation.Provides a reference.
		student ee missing- see below
21		Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion
		Author: Lee Date: 3 August 2008 01:30
		One of the most important steps initially is to determine whether an outbreak exist. As skin infection is normally not reportable so I think some active case seeking may be required. Relevant sources of information include other GPs in the area, surgeons, dermatologists, patholgy labs and hospital emergency departments. In addition it may be difficult to determine the background rates, as public health units may not have this type of information.
		The other important starting point is case definition. We need something more specific than difficult to treat skin infection. Further histological and microbiological information would be useful. Also relevant here to to determine the population that we are interested in, which depends on which group is having these skin infections.

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15	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Dr Carpenter Date: 3 August 2008 12:29 no problem, hopefully you won't have to be a "dummy" for too long!!
20	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student ee Date: 3 August 2008 20:49 *Provides reference:*
22	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student ss Date: 3 August 2008 22:47 *Suggests tests for confirmation of outbreak, further information to be collected; spread needs to be prevented.*
23	Subject: Re:Question 1 Topic: Threats #1: Group 3 Discussion Author: Student nn Date: 4 August 2008 10:04 *Adds to previous ideas in suggesting need for blood samples to discern patient immunity.*
25	Subject: Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Dr Carpenter Date: 3 August 2008 12:40 Hi again, great to hear from so many of you early in the piece, you have obviously listened to your lectures and are keen to get to work! Between you you have raised a lot of issues that need to be considered in this scenario: - what is the cause of the disease? - how is it spread? - the patients' risk factors? - who is at risk? - communicating accurate information to the community - doing some active surveillance - talking to experts - looking for links among patients.

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	These are all great points which we can elaborate on later.
	As several of you have pointed out, one of the first steps is to try and find out what the diagnosis is. This usually involves getting a good clinical history, examination findings, and laboratory tests.
	It turns out that these patients all have infections with Staphylococcus aureus, a bacterium.
	As several of you mentioned, antibiotic resistance is an issue that we need to consider. I have two questions for you now:
	1. How might you determine whether there is a problem with antibiotic resistance in Staphylococcus aureus infections in these patients?
	2. How might you determine the extent of any Staphylococcus aureus antibiotic resitance in the region?
	Perhaps if you each of you only answer one of these questions so as to not double up too much. Remember, keep it brief.
	Emily
26	Subject: Re:Questions 2 and 3　　　Topic: Threats #1: Group 3 Discussion
	Author: Student hh　　　Date: 3 August 2008 19:46
	Detailed explanation of methods of testing for antibiotic resistance.
27	Subject: Re:Questions 2 and 3　　　Topic: Threats #1: Group 3 Discussion
	Author: Student ee　　　Date: 3 August 2008 20:48
	Provides source for post 26.
29	Subject: Answering second question　　　Topic: Threats #1: Group 3 Discussion
	Author: Student ee　　　Date: 3 August 2008 21:43
	Data collection to determine antibiotic resistance; reference provided.
30	Subject: Re:Questions 2 and 3　　　Topic: Threats #1: Group 3 Discussion
	Author: Student nn　　　Date: 4 August 2008 09:45
	Public and private hospitals and pathology labs proposed as sources of information re antibiotic resistant organisms
31	Subject: Re:Questions 2 and 3　　　Topic: Threats #1: Group 3 Discussion
	Author: Student ff　　　Date: 4 August 2008 14:09
	Antibiotic resistance can be determined using skin swabs and sending these off for testing.
32	Subject: Re:Questions 2 and 3　　　Topic: Threats #1: Group 3 Discussion

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	Author: Student jj Date: 4 August 2008 14:35
	A study of patients' antibiotic use can also assist for questions of AB resistance.
33	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion
	Author: Gitali Date: 4 August 2008 15:52
	as epidemological studies describe in previous chapter,disease mode of spread detected by:-
	TIME PLACE & PERSON.
	as earlier mention the case noted by GP are wound infection with abscess....
	but it didnt describe the skin infection or abscess were multiple or single?
	if could be diagnosis differ, if it is single - then D/D differential diagnosis:-
	1)staphalococcus aureus-abscess
	2)staph. pyogenes- osteomyelitis
	3) pyoderma for mutliple abscess
	4)scabies etc.
	now,after careful examination of pateint history,the sample of wound or skin abscess sent to laboratory, as a result it was rule out :- staph .aureus.
	now, to go ahead to which antibotic will work on patient
	GP should sent samples of skin abscess for cultural sentivity and antibotic sensitivity.
	to find out virulence of bacteria staph.aureus as well to find which antibotic resistence in collected samples.
	for:-
	1)methicillin
	2)penicillin
	3)benzylpencillin
	4)tetracycline
	5)phenoxymethlypencillin
	6)lincomycin
	7)vancomycin
	8)erythromycin

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	9)fucidin after going through all antibotic resistence checkup, with all patient gp should look commonest case antibotic resistence cases. generally antibotic resistence with staph.aureus take place due to beta-lactamase in staph.aureus cell wall. after evaluating common cases for example:- every sample suggest benzypenicllin resistence. in that case GP should go for alternative choice of drug combination of which strain dont shows resistence ,like combination of -tetracycline + phenoxymethicillin. and further more. way of giving drug to patient, GP should go for proper combination of antibotic,with proper consideration age,sex,risk factor,past h/o of patient. combination of drug should be in such manner that should not lead to further resistence in future by giving combination of topical antibotic and oral antibotic with setorids to stop the further process and progression of disease specially in elderly age groups,diabetic,immunocompromise patients.
34	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Student gg Date: 4 August 2008 16:55 *Antimicrobial susceptabilty test (ASA) required.*
28	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Student gg Date: 4 August 2008 17:19 *also a cefinase test.*
35	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Student gg Date: 4 August 2008 21:50 *Need to check notifications and take random swabs.*
36	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Dummy Student Date: 4 August 2008 22:49 *Need to look at hospital and coroner's data and consult public health units.*

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37	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Mingyu Date: 5 August 2008 17:56 In answering Q2, apart from collecting hospital data, another approach to determine the extend of Staph. aureus antibiotic resistance in a region involves collecting estimates of incidence and prevalence from the Australian Group for Antimicrobial resistance (AGAR) survey that provides laboratory results from hospital patients. From one of the references Student ee provided, a study conducted by Nimmo and colleagues (2007) looked into the prevalence of methicillin-resistant Staphylococcus aureus (MRSA) and found that MRSA was significantly more likely to occur in patients in the older age group (61-100 years) compared with babies. Since the older age group are at higher risk, data can be collected from the elderly nursing homes, where they keep medical records for all residents. Sometimes, patients may call in family doctors instead of rushing to hospitals; which means they might not go directly to the hospital database. Also, the extend of Staph. aureus antibiotic resistance can also be determined through rural clinic database. Patients may live very far away from the hospital, so they might visit a nearby clinic instead; by collecting cases from clinics and nursing homes can pick up cases that's not been reported by the hospital. Reference: Nimmo, G.R., Pearson, J.C., Collignon, P.J., Christiansen, K.J., Coombs, G.W., Bell, J.M., McLaws, M.L & the Australian Group for Antimicrobial resistance. 2007. Prevalence of MRSA among Staphylococcus aureus isolated from hospital inpatients, 2005: Report from the Australian Group for Antimicrobial Resistance. Communicable Diseases Intelligence 31(3), September
38	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Student oo Date: 5 August 2008 22:23 *Rates of antibiotic resistance vary depending on the setting; need to specify antibiotic of interest.*
	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Student kk Date: 6 August 2008 16:13 *Treatment Failure is the most obvious indicator that there is a problem with antibiotic resistance (AR), also useful to obtain antibiotic (AB) use data amongst humans and livestock.*
40	Subject: Re:Questions 2 and 3 Topic: Threats #1: Group 3 Discussion Author: Feng Date: 6 August 2008 23:26 I agree with what everyone has mentioned before. I think sending off samples to the lab is a good way of detecting antibiotic resistance in Staph

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	Aureus.
	I am just thinking, we are assuming the patients are complying with the medications right? We can give everything in the world to these patients and assume it is antibiotic resistance when what could have happened is these ppl are either too busy, can't afford or wasn't taking the medication correctly.
	I think in addition to the usual clinical history, examination and lab tests, a deeper social understanding of how the community works is needed. I think enrolling the help of a local community member to provide local grassroot knowledge would help.
41	Subject: Note from Dr Carpenter Topic: Threats #1: Group 3 Discussion
	Author: Dr Carpenter Date: 6 August 2008 15:24
	Hi group 3
	There have been some good responses to these questions, before I summarise and move on to another question, has anyone got any other surveillance ideas they would like to share that could be useful for determining the extent of this problem? What if resources were unlimited, would this change what you would do?
	Remember, in this scenario you are the public health unit.
	Also, as this is supposed to be a discussion forum, there is no need to include referencing with your posts, unless you have a reference you think the other students would find useful that you want to share.
	Finally, if you have already made a few postings, try and hold back on these next questions so others can contribute, although once the ball is rolling feel free to add to it.
	Speak soon,
	Emily
42	Subject: Re:Note from Dr Carpenter Topic: Threats #1: Group 3 Discussion
	Author: Student kk Date: 6 August 2008 17:33
	Local gyms pools & schools/day-care centres, community pharmacies, local media (including hotline) could be used to detect possible clusters of cases, as well as direct approaches.
43	Subject: Re:Note from Dr Carpenter Topic: Threats #1: Group 3 Discussion
	Author: Sam Date: 6 August 2008 18:55
	Hi I am posting for the first time as I've carried off by certain circumstances. I know the consequences but that is fine.
	Anyway there may be a need to carry out a quality analysis on the drugs being prescribed. Counterfeit drugs are not uncommon and may slip into the markets in these days of globalization. Drug regulatory bodies must be alerted on the issue at hand.

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	And not only that, we may need to monitor patients' compliance somehow to be sure if physicians' instructions are followed; the notion being that antibiotic misuse may lead to development of resistance.
	Are we facing a new strain of bugs that has been imported through other routes? This is where recent outside travel may be important in defining our cases. If resources are available then we may need to allocate some to pursue these.
44	Subject: Discussion and question 4 Topic: Threats #1: Group 3 Discussion
	Author: Dr Carpenter Date: 7 August 2008 12:28
	Thanks people.
	As we discussed earlier, you would suspect that there was a problem with antibiotic resistance if the infections were not clearing up with standard treatment. As you have now identified, in order to confirm this you really need to have a microbiological lab test the bacterial isolates to see which antibiotics they are resistant to – thanks to Student hh for giving us some detail on how this is done. As Ann pointed out, the cost of these tests too is always something that needs to be considered.
	For determining the extent of antibiotic resistance in the region there are several options:
	1. If staph aureus infections were notifiable under the Public Health Act you could look at notification data (it's not in NSW) which may capture data on resistance patterns;
	2. You could survey labs serving the region (or the state) to find out whether they routinely test for S aureus resistance and if so what their data show
	3. You could look at the studies already done, such as the AGAR group mentioned by Mingyu, done using hospital data
	4. Depending on your resources and what you really wanted to know, there are a number of special studies you could do. As Student oo and a few others identified, what you are particularly concerned about is community staph aureus resistance levels, so asking all doctors to swab all patients presenting with pus and having the lab test them all for antibiotic resistance; or swabbing a sample of well people in the community would be a way of studying this group. However they may be things to consider later on rather than now, depending on whether you thought that the results of such studies could help develop prevention activities.
	As a few of you have suggested, patient compliance and drug quality might need to be considered when deciding whether this is truly a case of antibiotic resistance.
	Now I am going to post three more questions for you in separate threads. Please focus on just one question each, ideally one which hasn't been answered. Here is the first one:
	If you found out there was a problem with antibiotic resistance, what would be the process for developing control measures?
	(Think general process, not specifics for this question.)

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45	Subject: Re:Discussion and question 4 Topic: Threats #1: Group 3 Discussion Author: Chun Date: 8 August 2008 12:29 On one hand, we should eliminate the current ARSA. SA cannot be antibiotic resistance for all the antibiotic. Hence, using some sensitive antibiotic destroy the SA. On the other hand ,we should prevent the new AR bacterias appearence. 1. Developing awareness of appropriate antibiotic use.forbid the antibiotic abuse. 2. developing effective vaccine for special AR bacterias. 3. If AR bacterias appear, isolating the new infections to prevent spread of it.
46	Subject: Re:Discussion and question 4 Topic: Threats #1: Group 3 Discussion Author: Gitali Date: 8 August 2008 14:40 since ARSA is identified in community in society,publi awareness by :- 1) poster display 2) channel news & advertisement or media. 3)awareness camping and school visit. THE PREVENTION AND CONTROL MEASURE the awareness should be generated among all gps ,laboratories,public workers,chemist and general population. second measure is ISOLATION-- 1)by isolating number of cases recorded and should be treated seperately in wards. 2)release of antibotic and multi resistence drugs for general population to reduce the number of up coming cases. in addition to it,general survey recording new number should be noted regularly by epidemologist
47	Subject: Re:Discussion and question 4 Topic: Threats #1: Group 3 Discussion Author: Student nn Date: 8 August 2008 18:25 *In list format, summarises and adds to previous posts.*
48	Subject: Re:Discussion and question 4 Topic: Threats #1: Group 3 Discussion

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	Author: Student s Date: 10 August 2008 21:46 *Elaborates on Chun's idea, of limiting antibiotic abuse e.g. self-medication with overseas-obtained drugs, use on animals, technical detail on clinical administration of antibiotics.*
49	Subject: Question 5 Topic: Threats #1: Group 3 Discussion Author: Dr Carpenter Date: 7 August 2008 12:29 What sort of specific control actions would be worth considering in this case?
50	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion Author: Student gg Date: 7 August 2008 17:45 *Lists specific control actions: isolation, investigation, education.*
51	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion Author: Student qq Date: 8 August 2008 12:26 *More detail on isolation, sanitised environment, following strict antibiotic usage guidelines.*
52	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion Author: Sam Date: 8 August 2008 12:50 I would add a few points to Student qq's. Depending on the resources at hand screening should involve culture of samples from nares or other body sites of cases and not from pus swabs only. I am thinking about their status as carriers and of course as reservoirs. I am reminded here that logistics and cost impacts would have to be faced but be measured against costs of an uncontrolled outbreak. Who to screen will be interesting but may be inclusive of those in contact with any health care facility, contacts or roommates,elderly,sports colleagues, the mobile disadvantaged (e.g exposed homeless) etc. Secondly, health facility staff should be screened especially if transmission continues despite ongoing isolation and barrier nursing measures. Third, strict ward control measures including barrier nursing eg sigle rooms or dedicated bays, reduce nurse -to-patient ratio, more hand-hygiene compliance. Thorough environmental cleaning and educating the public on simple hygienic measures have been stated but only need to say that none of these alone works, it must be a concerted,multi-faceted response. even restricted eating areas in hospitals may help. Hospitals must remain the focus of control in addition to the community so it calls for tougher policies and enforcements within public and private health care facilities in terms of hygiene, management of all patients and overall waste management guidelines.

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53	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Student jj Date: 8 August 2008 14:40	
	Need to identify source of AB resistant organism – detail on how to do this.	
54	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Student pp Date: 8 August 2008 15:12	
	suggests genotyping, though expensive.	
55	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Sam Date: 9 August 2008 10:22	
	I would agree so, because it will be of little use trying to implement so much costly measures when the target is not accurately hit. As we have seen in the discussion so far not all staph exhibits the same characteristics. The hospital acquired and community acquired strains are quite unique; community isolates have this PVL, a putatively virulence factor.	
	And if there is resource we make the best use of it for the public.	
56	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Student ee Date: 9 August 2008 15:25	
	Disagrees with Student jj's last paragraph. Supports previous suggestion – isolate, investigate, educate.	
57	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Gitali Date: 8 August 2008 15:00	
	in this case should follow ROUTINE REPORTING ANS SURVILLENCE SYSTEM:-	
	can be done by active and passive survillence.	
	active survillence in this health worker visit house to house to enquire about occurence of diease.	
	in passive:- search for cases is carried out and recorded at fixed centres such as primary health care centre.	
	by recording out cases from these centres.	
	SENTINEL SURVEILLENCE :- 2 or 3 units are selected in each district by reporting number of cases from particular hospital for eg:- infectious diease hospitals.	

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	COMMUNITY:-by study groups paricular,schools teachers,womens group etc.
	SPECIAL STUDIES-they are conducted by health staff,epidemologist etc.
58	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion
	Author: Gitali Date: 8 August 2008 15:16
	for further specific control actions requires:-
	every hosptal should have a Hospital infection control commitee which formulate policies regarding admission of infectious cases,isolation facilities,disinfection procedures and other control measures,some important steps taken are:-
	1)containment of sources-a) by isolation of infectious cases in special wards.b)pre employment & periodical examination of hospital staff and preventing those who suffering from skin disease,sore throat,common cold,ear infection,diarrhoea etc.c) barrier nursing- hospital staff first put on gowns,gloves etc before touching the patients.d)task nursing:-where special nurses allocated for special duties such as neonatal wards.
	2)by blocking routine transmission:-ii)hand washing etc.iii)disinfectant iv)disinfecting patient articles as well as urine,feaces,sputim etc.v)use of face mask,minimum 12 feet of spacing between centre of beds,adequate ventilation and lighting,etc to reduce droplet of infection.vi)sweeping with brooms avoided and wet mopping,vaccuming.
	3)protecting susceptibles:-by isolating them in side-rooms.
	4)education patient-to keep surrounding clean.
	5)traing staff to keep antisepic technique
59	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion
	Author: Student kk Date: 9 August 2008 00:10
	List of specific control measures to consider.
60	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion
	Author: Lee Date: 10 August 2008 02:22
	We have been talking about control of the clonal spread of resistant organisms. A related topic is the control of emergence of resistant organisms.
	For the former, the best strategy is effective infection control measures. For the latter, the only proven strategy is hospital and community antibiotic formulary restriction. In other words, hospitals and community should restrict the use of broad spectrum antibiotics, and those antibiotics with high resistance potential.

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61	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Student ff Date: 10 August 2008 11:43	
	Specific control measures can be deployed once the means of transmission has been established. Public announcements also needed.	
62	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author:Student p Date: 10 August 2008 12:50	
	Tailored Infection control plans to the type of facility should be devised and implemented, community education is important, surveillance should also be set up.	
63	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Liz Date: 10 August 2008 15:53	
	I think that it is important to remember that we are talking about a specific question, which is MRSA in the community. Presumably, people are aquiring this organism not only from hospital but from spread in the community and so the intervention needs to be targeted to that end. I agree that it is very imporant to have hospital based initiatives against spread of MRSA, but in this case, as resources are always limited, we need to focus on preventing spread in the community, ie hand washing programs in schools.	
64	Subject: Re:Question 5 Topic: Threats #1: Group 3 Discussion	
	Author: Sam Date: 10 August 2008 16:25	
	I also thought that it is best time to inject education measures while the condition is still "fresh in peoples' minds and eyes. PH units should allocate a certain portion of resources for media release, posters and pamphlets. This may include clinical features the public should be alert for, how to seek help, how to prevent the condition to avoid what they are now seeing.	
65	Subject: Question 6 Topic: Threats #1: Group 3 Discussion	
	Author: Dr Carpenter Date: 7 August 2008 12:36	
	How would you know whether your controls have worked or not?	
66	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion	
	Author: Chun Date: 8 August 2008 11:58	
	If the controls work, the situation of the patients should be better and the number of infections gradually stop to increase. When the premier patients are fully recovered, the number of the current patients should be decline dramatically. The lab test find the SA decreases in the abscess and	

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	it tend to heal.
	In contrast, if the controls don t help, the patients should be weaker than before--more abscesses appeal, and the infections increase faster. In the worst circumstance, he infection may be transmitted to other area of NSW.
67	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Student qq Date: 8 August 2008 13:07
	A decline in number of new infections should be observed – explains how to find this out..
68	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Student pp Date: 8 August 2008 15:09
	Explains how to evaluate control measures.
69	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Gitali Date: 8 August 2008 15:24
	to check the preventive measures were adequate or not following updates are:-
	i)regular hospital survey by epidemologist.
	ii)regular group or society survey for adequate measure.
	iii)regular educational program and camping for free checkup.
	iv)regular in case and out case patient record check updates ,that how many patient recovred and educat them for future prevention.
	v)ARSA strict dose maintainence for future so that it wont cause future resistence.
	vi)regular researches on ARSA in labotaries for futur studies
70	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Student kk Date: 8 August 2008 23:21
	Refers to Chun and Student QQ, how to find out if number of new cases is declining.
71	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Sam Date: 9 August 2008 10:35
	To simply put it our epi.curve should demonstrate a downward trend. Someone has mentioned an epi.curve during the discussion and I think we can be guided by this simple chart. I am sure all relevant channels of communication across all department/sectors would have facilitated this for the PH Unit because we may have established/cemented those links during the early stage of the outbreak.

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72	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Mingyu Date: 9 August 2008 12:37
	Hi,
	I wonder if a spot map is possible to know whether the control actions worked. If a spot map is carried out after 2 months once the control strategies were taken place, it will show a decline number of cases in specific regions.
	This enables investigators to keep track of the ongoing process of the control actions, once they found out the number of cases declined in a region, then it indicates the controls work.
73	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Student ee Date: 9 August 2008 14:56
	Provides detail on use of spot maps.
74	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Gitali Date: 9 August 2008 15:04
	im sorry if im repeating my ideas again,i think to check control is adequate or not,there should be regular survey after a week on same locality where of disease were found,next thing record cases the recovered and not recovered,in this include hospital survey and group survey ,which will help out to pick up if diease got controlled or not.
75	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Student ff Date: 10 August 2008 11:46
76	Subject: Re:Question 6 Topic: Threats #1: Group 3 Discussion
	Author: Liz Date: 10 August 2008 16:02
	One way to determine if the controls had worked is to make MRSA a notifiable condition. If GPs and hospital emergency departments are encouraged to send samples from suspicious skin conditions, MRSA could be indentified by laboratories and if the controls are working, the number of cases would be expected to decrease over time.
77	Subject: final post Topic: Threats #1: Group 3 Discussion
	Author: Dr Carpenter Date: 8 August 2008 10:05
	Hi people,
	What a great job you have all done answering these questions. You have really started to work well as a group, discussing ideas and building on each others suggestions, well done. You have covered all the info you need to know on investigating an outbreak, so let me just quickly summarise:

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With regard to the first question it is useful to have a general process for approaching any public health problem, such as the one given by Jeremy in his lecture:

a) identfiy the problem

b) do a literature search

c) talk to experts

d) call together an expert panel (perhaps epidemiologists, clinicians, microbiologists, behaviourials, communications people, ethicists, etc) to help develop a control strategy,

e) draft out a plan

f) consult on the plan

g) talk further to the community to get their support and ideas on implentation

h) work out how to fund it

i) implement it

j) assess whether it is implemented properly

k) assess whether it works

l) fix any problems

You have covered the next question brilliantly, - with specific regard to antibiotic resistant staph skin infections, as well as following the above processes you could include:

- getting an understanding of the risk factors by investigating them among these patients, and also looking in the literature and making recommendations about which ones to avoid (eg sharing towels and nails scissors is a bad idea)

- development of information for affected patients and their contacts (families), fact sheet, media campaign etc. - difficult though to get people to change their behaviour

- resources for clincians to help them identfy and aprroriately treat cases

- arranging lab support

- as some of you said, a campaign raising awareness about the overuse of antibiotics among doctors and the community may also help reduce the selection of resistant bacteria.There are some restrictions placed on hosp doctors on which drugs they can prescribe, in an effort to spare the important antibiotics for the most resistant bacteria. However Drs are under pressure from both patients and drug companies to provide people with antibiotics, so it is difficult.

Finally, as you all picked up on, ongoing surveillance will be necessary to detect if controls are working. You also need to bear in mind that

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	sometimes when you raise awareness you will find that any surveillance you do will show an initial increase in cases (as more are identfied because if they are more likely to present to the doctor following media reports) and doctors are more likely to take tests. But the things you suggested such as repeat surveys, perhaps making infection notifiable, and talking (even informally) to clincians and labs will give you an idea of what is going on.
	Phew, that is it I think. Good effort on your first module group 3, I look forward to talking again in module 2
	All the best
	Dr Carpenter

Mod 3 Group 2 Moderator only

ID	Text
1	*Subject: Tutor intro Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 29 August 2008 09:13
	Hello everyone. I'm Ken Paulson –John has asked me to be your tutor for this module.
	I work as a medical epidemiologist in [organisation]. I've worked in the Department since 2003, the year after I finished my [degree] Web CT was used a little back then - it seems like this is getting more popular as a teaching and learning tool.
	I hope you find the module stimulating and enjoyable. The plan is to use an unfolding scenario to set the scene and questions will be posted every one or two days that relate to the scenario. I will also try and give some feedback to some of the responses that you guys post.
	Please remember that there are strict guidelines for posting including the number of posts, their length and their content - you should know these all well by now. There will be plenty of questions for you all to answer - some will be easy and others will be more challenging. Please read each other's posts carefully so you don't end up just going over the same old ground again. Also, don't just cut and paste stuff from other sources as your post - I want you to think about the situation and create some interesting discussion.
	Anyway, on with the show...
2	*Subject: SCENARIO - PART A Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 29 August 2008 09:15
	You are working in a public health unit in Dubbo, NSW. It's February and it's stinking hot. You're looking forward to spending the weekend at home. Thankfully, it's Friday at quarter to 5. "Fifteen minutes to go..."
	The fax machine whirrs to life and spits out some paper. Reluctantly, you put down your beer and wander over to the fax machine to see who is bothering you at this time of the day...

ID	Text
	NOTIFICATION UNDER THE NSW PUBLIC HEALTH ACT 1991 Patient Name: Patrick Kennedy Sex: Male DOB 17/03/70 Address: Trafalgar Rd Gungalman 2831 NSW. Result of serology taken on 02/02/2008: Murray Valley Encephalitis IgM positive, IgG negative. Referring medical practitioner: Dr Josephine Bloggs, Sutherland Street Medical Practice, Walgett NSW 2832. Signed: Dr Mavis Staples, FRCPA Institute of Clinical Pathology and Medical Research Level 2, Westmead Hospital PO Box 533, Wentworthville NSW 2145 "Hmmmm. This is a little unusual" you think to yourself... You scratch your head and try to remember what you learned about MVE all that time ago when you did your MPH...
3	*Subject: Q1 What do you make of this serology result? Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 29 August 2008 09:16* Is there any more information you need?
7	*Subject: Re:Q1 What do you make of this serology result? Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 1 September 2008 10:58* Some good points here - serological tests can be really useful but some are very <u>difficult to interpret and often have problems with false positive and negative results</u>. What are some of the implications of false positives and false negatives for public health units? Student u made a good point about testing convalescent serum from the patient. A rising titre is more convincing evidence of recent infection. What is the key problem for public health if you just rely on rising titres, though?
9	*Subject: Q2 What initial steps would you take to deal with this notification? Topic: Threats #3: Group 2 Discussion*

ID	Text
	Author: Ken Paulson Date: 29 August 2008 09:17 Remember that it's Friday afternoon and your beer is getting warmer by the minute!
11	*Subject: Re:Q2 What initial steps would you take to deal with this notification? Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 29 August 2008 14:13* Wow - all of this on Friday afternoon! What I really want to know is what you'd do in the first few hours after you got the notification... Are there dangers of getting ahead of yourself? *Ken*
13	*Subject: Q3 How would you go about getting more information about the patient. Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 30 August 2008 17:43* What sort of information would you want to know?
16	*Subject: Re:Q3 How would you go about getting more information about the patient. Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 1 September 2008 11:03* That's good. Often the person who ordered the test will be able to give you some clinical information about the patient and this is usually worthwhile. Normally public health units contact the person (eg the GP) who ordered the test in the first instance. As mentioned, some of the information you're really after (eg info about exposure or outcome) may not be available to the GP who ordered the intital test and that's why you often need to dig further.
17	*Subject: Q4 Who do you inform about this patient and/or the result? Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 30 August 2008 17:45* [NB no text]
27	*Subject: Re:Q4 Who do you inform about this patient and/or the result? Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 1 September 2008 11:10*

ID	Text
	Wow - you guys are pretty keen on telling everyone everything!
	What could be some of the problems in going public with this information at this early stage?
23	*Subject: SCENARIO PART B Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 1 September 2008 11:20
	Patrick Kennedy, is an Irish potato farmer who's second love is ornithology (his first love is potatoes, of course). His passion is travelling to exotic places taping the mating calls of rarely seen waterfowl.
	Unfortunately patrick is not doing too well now. He has severe encephalitis and is in ICU, ventilated. His prognosis is very poor.
	You are asked to call in for an urgent teleconference with NSW Health Communicable Diseases and Environmental Health Branches. Where you will be asked to outline some of the intial information you've collected about Mr Kennedy and about your public health response to date.
24	*Subject: Q5 How could you find out if there could be any other people who are acutely infected with MVE? Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 1 September 2008 11:23
	What are some of the advantages and disadvantages of your approach(es)?
	How likely is it that other people have also been infected this mozzie season?
28	*Subject: Re:Q5 How could you find out if there could be any other people who are acutely infected with MVE? Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 1 September 2008 17:05
	Some good ideas raised here but remember that only a tiny proportion of people who are infected become symptomatic! What do you make of this? Do you want to rethink your approach?
38	*Subject: Q6 How could you ramp-up existing surveillance mechanisms for MVE? Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 5 September 2008 15:02
	How would your changes to surveillance influence your ability to accurately assess the level of risk to the community?
41	*Subject: Re:Q6 How could you ramp-up existing surveillance mechanisms for MVE? Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 7 September 2008 09:28
	OK - what implications do you think that the events of this season will have for next year's summer? Would you do anything different to prepare for next season?
45	*Subject: Q7 Draft a 200-word press release about this event. Topic: Threats #3: Group 2 Discussion*
	Author: Ken Paulson Date: 5 September 2008 15:08

ID	Text
	Think carefully about what information to include (or not). Remember that you're trying to inform the community clearly and accurately about the level of risk and give them some strategies to reduce their risk. It's harder than you think!!
52	*Subject: Re:Q7 Draft a 200-word press release about this event. Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 7 September 2008 09:26* Some of the press releases strike the right balance between informing people of the risk but not overwhelming them with terror. How influential you think a press release is in changing people's behaviour to reduce their own level of risk?
55	*Subject: Module Summary Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 7 September 2008 09:32* If there's anyone out there who hasn't contributed to the discussions yet, perhaps you'd like to summarise some of the key messages of the module for everyone. It might be best to do this in point form.
58	*Subject: Vector control Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 8 September 2008 17:20* Some of you have mentioned chemical methods of controlling vectors in your answers. This is a big step, likely to be logistically difficult, expensive and would only ever be done if there is a clear public health benefit. (Have a think about some of the unanticipated side-effects of large scale chemical vector control). This is certainly used in some situations (eg Dengue control in northern Qld) but is unlikely to be implemented in this situation unless the benefits clearly outweighed the risks and costs of such an intervention. *105*
59	*Subject: Bye Topic: Threats #3: Group 2 Discussion* *Author: Ken Paulson Date: 8 September 2008 17:23* Thanks to everyone who participated in the discussion. I hope the module has made you think a little about the public health assessment of risk, the methods of surveillance for arboviral diseases and some of the issues around communicating risk to a population. Best of luck for the rest of the course. *Ken*

	Module 3 Group 3
ID	Text
[1]	Subject: Scenario and first questions Topic: Threats #3: Group 3 Discussion Author: Emily Carpenter Date: 29 August 2008 10:04 Hi Group 3 and welcome to module 3. I hope everything is going well for you all. Feel free to post a message or email me with questions or feedback about the online discussions so far. Here is your scenario to work through, followed by two questions to think about and answer on the weekend. I know you are keen but please only answer one of the questions below! So: It is mid-summer, two cases of encephalitis are reported from separate localities of the northwest of NSW and one of the patients has died. Both patients had complained of extensive mosquito attacks while working near the river or in wetland areas about a week earlier. The state authorities have been notified but you are in charge of the local public health unit and have to consider the prospect of an outbreak of arboviral disease. Question 1 What are the possible arboviral causes on this illness? Question 2 What should be done to determine the causal agent?
[2]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion Author: LEE Date: 29 August 2008 11:40 The potential causes include 1. Murray Valley virus, which can cause encephalitis. However there has been no cases in NSW since 1974. 2. Kunjin virus, which can cause non-encephalitic or encephalitic illness. However, encephalitis is relatively uncommon. 3. Dengue fever can cause meningoencephalitis, but currently north Queensland is the potential area with epidemic dengue virus in Australia. Local transmission has not been reported in NSW for a long time. 4. Japanese encephalitis in not endemic in Australia, but there has been cases reported. I also considered Ross River and Barmah Forest viruses infections, as they are the most common arboviral infections seen in NSW. However these

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	infections are not fatal, and they normally don't cause encephalitis.
	This is the first post so I kept it broad. I also kept it relatively short so other people can contribute. We should probably discuss the following:
	-clinical manifestation
	-likely vector responsible
	-approach to investigation
	-further information (history) required
	-laboratory diagnostic criteria
	-Other possible causes if these aren't local transmission (eg returned travelers)
	Lee
[3]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: MINGYU Date: 29 August 2008 13:40
	Lee has covered all the potential mosquito-borne viruses in Australia, the possible vector responsible for arboviruses are…
	Vector
	Arboviruses
	Culex annulirostris [Major inland vector]
	Murray Valley virus, Kunjin virus, RRV, BFV and Japanese Encephalitis
	Ochlerotatus vigilax [Major coastal vector]
	RRV, BFV
	Ochlerotatus camptorhynchus [Major coastal vector-Southern]
	RRV, BFV
	Ochlerotatus notoscriptus [Urban vector]
	RRV
	Aedes aegypti[Mainly North QLD, introduced in NT in 2004]
	Dengue

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	Since the 2 cases are found in North West NSW, it is likely to be caused by inland vector. However, coastal vectors are possible as well, especially from coastal travelers.
[4]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT EE Date: 29 August 2008 13:43
	Expands on Lee's suggestions – likelihood of it being named diseases, detail of transmission.
[5]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT SS Date: 29 August 2008 14:31
	Steps to determine the causal agent.
[6]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT HH Date: 29 August 2008 17:04
	Further detail on steps to determine the causal agent.
[7]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT NN Date: 29 August 2008 18:04
	Use of sentinel animals, identification of mosquito species present, volume of vectors.
[8]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT QQ Date: 29 August 2008 17:32
	To determine the causal agent: confirm arbovirus, determine locations of infection, identify mosquito species by collecting specimens.
[9]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion
	Author: SAM Date: 30 August 2008 00:47
	Just to add a point to the the ideas above we are not sure as well whether we are dealing with an area known for arboviruses inflictions or otherwise. We may have to get another reference lab to confirm our laboratory findings if so.
	Any diseased animals within the locality should be alerted to the veterinary community who may help us in our diagnosis search. This also needs safety of the field officers as we are still to be certain about the real culprit. But we are hoping that swift laboratory findings my mitigate this fear.
[10]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion

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	Author: STUDENT FF　　　Date: 30 August 2008 18:44
	Needs case definition, complete history from both cases including recent travel also samples of insects, eggs etc.
[11]	Subject: Re:Scenario and first questions　　　Topic: Threats #3: Group 3 Discussion
	Author: STUDENT PP　　　Date: 30 August 2008 19:12
	Brain autopsy on deceased patient may identify causative agent.
[12]	Subject: Re:Scenario and first questions　　　Topic: Threats #3: Group 3 Discussion
	Author: STUDENT JJ　　　Date: 2 September 2008 16:28
	Test for genetic markers of viruses from the autopsy
[13]	Subject: Re:Scenario and first questions　　　Topic: Threats #3: Group 3 Discussion
	Author: GITALI　　　Date: 31 August 2008 16:30
	Encephalitis is an inflammation of the brain that can be caused by arboviruses (viruses carried by arthropods, such as mosquitoes and ticks) or by other types of viruses and most commonly transmitted by infected mosquito and tick bites.
	mosquitos such as:-Culex pipiens,Aedes triseriatus andAedes vexans.
	possible viruses:-Detection of Murray Valley encephalitis virus-specific IgM in cerebrospinal fluid in the absence of IgM to Kunjin, Japanese encephalitis or dengue viruses.Detection of Murray Valley encephalitis virus specific IgM in serum in the absence of IgM to Kunjin, Japanese encephalitis or dengue viruses. This is only accepted as laboratory evidence for encephalitic illnesses.detected in CSF fluid or in blood test.
[14]	Subject: Re:Scenario and first questions　　　Topic: Threats #3: Group 3 Discussion
	Author: LIZ　　　Date: 31 August 2008 17:14
	In reply to question 2:
	A good start to get some clues as to the appropriate agent to test for would be to go back through the patients' history and clinical examination.
	Important factors would be
	- the timecourse of the illness and relationship to potential exposure
	- the clinical course of the disease
	- specific features, ie rashes, rigors

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	Using clincla features will narrow down the number of organisms that will need to be tested for and will help made the search more efficient.
[15]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion Author: STUDENT FF Date: 31 August 2008 22:42 *Identify the natural reservoir host of the disease in the native animal population of the area.*
[16]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion Author: FENG Date: 2 September 2008 01:47 To determine the causal agent, the below would be helpful: Local knowledge regarding previous outbreaks/disease Disease pattern Incubation period Location and area affected Predisposing factors Environmental factors affecting vectors
[17]	Subject: Re:Scenario and first questions Topic: Threats #3: Group 3 Discussion Author: STUDENT II Date: 7 September 2008 16:36 *Recommends brain autopsy and blood tests. Analyse environment where patients exposed.*
[18]	Subject: Next question from Emily Topic: Threats #3: Group 3 Discussion Author: Emily Carpenter Date: 31 August 2008 22:38 Hi all once again some great group work - I love the way you built on each other's suggestions, you are working like a well oiled machine group 3! You have covered most things I can think of, but did anyone mention that it could also be a new or exotic virus, such as West Nile virus? Ok, onto your next question, time for some of the lurkers to have a go: The agent is identified as Murray Valley encephalitis virus. What would you do to monitor and manage the further spread of disease?

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[19]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT FF Date: 31 August 2008 23:16 *The public health response would involve identifying if there really is a problem, and reducing exposure of the public to possible disease.*
[20]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT HH Date: 31 August 2008 23:50 *Surveillance needed, of humans and vectors as well as protective measures for humans.*
[21]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT EE Date: 1 September 2008 08:16 *Expands on info re vector surveillance and control, also public awareness and education.*
[22]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT QQ Date: 1 September 2008 15:32 *Prefers biological to chemical controls.*
[23]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT OO Date: 2 September 2008 16:19 *Work with regional water bird biologists to monitor birds.*
[24]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: LEE Date: 2 September 2008 14:13 Hello group, "...less activity during dawn and dusk..." I heard that most mosquito bites do occur around dawn and dusk. I am just wondering whether this applies to all insects/mosquitoes, or does this only apply to certain species of mosquito? Does anyone know? Lee
[25]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT OO Date: 2 September 2008 16:12

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	Mosquitoes prefer dawn and dusk.
[26]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: SAM Date: 2 September 2008 17:28 I can give you an idea about malaria but not the others. They feed at dusk (as soon as the sun sets) and then around midnight, and finally at dawn just before daybreak. If you are living on a coast the tides sometimes alter this pattern very slightly, with more feeding at low tide than during high tides.
[27]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT PP Date: 1 September 2008 12:14 *Value of chicken sentinels?*
[28]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: SAM Date: 1 September 2008 23:20 Hi firstly I would just add to Student ff's advice on avoidance of potential mosquito-breeding grounds. These insects are known to travel several kilometers and it may be a good idea to emphasize a distance (?? 5km) one should keep himself off riverines, swamps, and irrigations. I also would like to engage the environmentalists/meterological people in planning a sustained control program for the next few weeks or months, especially on destroying reservoirs etc. This virus is known to be sprouting during the El Nino weather changes.
[29]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT KK Date: 2 September 2008 00:36 *Public education is key – and how to do this. Cull of reservoir host birds?*
[30]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: FENG Date: 2 September 2008 01:53 Great ideas everyone. I don't really have anything much to add really... However, I have read sometime ago about this novel idea of releasing sterile male mosquitoes to mate with the wild-type females as a form of vector control. I guess as other people have pointed out, education and awareness is very important in preventing an epidemic. Mosquitoes breed in mostly stagnant

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	water, hence the public will need to be made aware as to how the mosquito breed and how to eliminate potential breeding grounds at home.
[31]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT KK Date: 2 September 2008 19:17 *Doubts whether domestic control efforts will have much effect .*
[32]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT EE Date: 3 September 2008 14:02 *Domestic control efforts might be meaningful in rural areas.*
[33]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: LEE Date: 2 September 2008 14:08 I think the group came up with a good list. Perhaps I can mention a few interesting facts about the Murray Valley encephalitis virus (MVEV). In most cases MVEV causes subclinical infection (without symptoms). In fact, serological studies show that only about 1/800 of those infected with MVE virus develops clinical disease. In these clinical cases, it may cause a mild disease with fever, headache, nausea and vomiting. It causes meningitis or encephalitis only in a very small proportion of people. Infection can be confirmed by a rise in antibodies in blood sample taken a week apart. MVEV can be diagnosed if any ONE of the following is found in serum or CSF: (Note: we rely on laboratory diagnosis as clinical diagnosis is difficult.) -Isolation of MVEV -Detection of MVEV -MVEV IgG seroconversion (IgG negative to positive) or >4x increase in IgG -MVEV IgM detected in the absence IgM to Kunjin, Japanese encephalitis or dengue viruses MVE virus is endemic in northern Australia and PNG where sporadic cases occur every few years, usually at the end of the wet season. Seven outbreaks of MVE virus encephalitis have occurred in southeastern Australia since 1917. The last of these was in 1974. In these outbreaks there was widespread flooding which caused large increases in the population of water bird and vector mosquito. MVE virus encephalitis seems to occur in people who receive large numbers of mosquito bites during a single exposure.

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	There is no evidence of person to person transmission, so there is no need to treat contacts or isolate cases. Lee
[34]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT JJ Date: 2 September 2008 17:28 *Agrees with several others and ownders if birds can be given anti-virals.*
[35]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT MM Date: 3 September 2008 17:30 *Warning of the population comes first. The second task is to warn hospitals.*
[36]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: LEE Date: 4 September 2008 00:58 Hello Student mm, I agree that medical professionals in the area should have a higher index of suspicion when seeing people who present with a clinical syndrome consistent with MVE. I would add to your suggestion that in addition to informing hospitals, it would be just as important in informing primary care providers such as GPs. I think communication with the public is crucial. I noted that in your post you used the word "danger" repeatedly. I agree that it's important for the public to understand seriousness of the situation. But at the same time it is equally important not to cause unnecessary anxiety or panic. The media by this stage would probably be reporting sensational stories and cases. So I think it is equally important for the PHU to reassure the public, and convey accurate information in the most appropriate way to minimize public anxiety. Lee
[37]	Subject: Re:Next question from Emily Topic: Threats #3: Group 3 Discussion Author: STUDENT II Date: 7 September 2008 16:46 *Role of local government in warning and protecting population.*
[38]	Subject: third tutor post Topic: Threats #3: Group 3 Discussion Author: Emily Carpenter Date: 2 September 2008 18:15 An excellent list people, and some very lateral thinking.

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	Student pp you are onto something with setting up some new sentinel flocks - helpful to determine the area of activity, as would be bleeding current sentinel flocks. It is essential to liaise with experts in every area - for example Student oo's suggestion of talking to the water bird biologists.
	Several of you mentioned surveillance but I just wanted to emphasise the "active" part of the active surveillance that needs to be carried out. Early diagnosis will lead to better management of the patient even though management is mainly supportive only. Active surveillance usually involves contacting GPs and hospital EDs and clinicians to raise awareness and find cases.
	Ok, your next dilemma:
	There is no vaccine available and public concern is rising. How would you deal with pressure from the public and potential alarmist sensationalism in the media?
[39]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT NN Date: 3 September 2008 10:09
	Education as key to reducing fear and panic in the community but media etc should do so responsibly.
[40]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT PP Date: 3 September 2008 10:11
	It's important to affirm that there is as yet no outbreak.
[41]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT KK Date: 3 September 2008 16:32
	There may be an outbreak ...
[42]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: CHUN Date: 5 September 2008 14:23
	Hi, Student kk
	I agree with you. And some complement, Incubation of MVEV is 7-14 days. the first two cases may be of the shotest incubation. After couple of days, some more cases may appears. Meanwhile, the sympton of the first two cases are very typical, i.e easy to diagnosis. There still might be some other current cases of wrong diagnosis. Just assumption,but should be considered.
[43]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT NN Date: 5 September 2008 16:58

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	Defines outbreak.
[44]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: GITALI Date: 3 September 2008 13:43
	as there is no vaccine available for Murray Valley encephalitis virus, there are many other preventive measure can be is :-1) facilities the use for providing intensive care, particularly artificial respiration, must be provided by every hospital. 2)alarming population through media addvertisement and news or relasing newspaper or posters to demonstrate all modes of prevention ,explain to prevention from mosquitoes,by using mosquitoes repellents,net,throwing stored water and by treating infected brids,awaring people to avoid to do for example gardening, bushwalking, camping and picnicking.avoid to visit mosquito infected areas.
[45]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT KK Date: 3 September 2008 16:10
	Details of what the education campaign should include, with references to previous posts.
[46]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT P Date: 3 September 2008 18:25
	Health Dept. and PH unit(s) could form a group of media advisers, to keep messages accurate. Risks should not be downplayed.
[47]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: SAM Date: 3 September 2008 23:44
	One small concern on challenges with vaccine development especially with "funding" problem: those affected(socially or economically) may see it as an excuse for not pursuing enough despite the resources at hand. I don't know if this part can be delegated to the scientific community (institutes which deal with vaccine development) to assist us with. Just to bolster public confidence I guess.
[48]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: LEE Date: 4 September 2008 01:15
	Hello Student kk,
	I think in terms of vaccine development, funding/profile are only parts of the bigger issue. It's true that it costs at least 100-300 million to bring a vaccine from the laboratory to licensure, assuming a vaccine is not scientifically or immunologically difficult to produce.

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	Let's assume we have the funding, and the technology to produce a effective vaccine. But I wonder whether we should
	vaccinate people for a disease that is (1) uncommon, (2) cause serious disease so rarely, (3) control/preventative strategies readily available?
	Also, would such vaccine be cost-effective? Would the public take up the vaccine? Can the community accept the risk of complication from vaccine, since the risk of the disease so low?
	Remember so far we only have two cases of encephalitis. And in Australia we have the resources to control arbovirus via other means.
	I don't know what the answer is for MVEV. But they are certainly relevant issues to consider.
	Lee
[49]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: STUDENT P Date: 3 September 2008 18:05
	Agrees with Student nn – importance of accurate and consistent information about all aspects.
[50]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: SAM Date: 3 September 2008 23:27
	I think Student p made a important point that we should be the first to communicate with the public in a transparent manner. We can start with the probable problem first and be more definitive later on. Having the popular media taking on a leading role in disseminating information will affect reception of our delayed,vital information. As others have stated we can attract good public cooperation in our containment from establishing such an early trust.
[51]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion
	Author: MINGYU Date: 3 September 2008 22:38
	Public communication strategies required to manage crisis during outbreaks, may be as simple as a visit by a public health officer to schools, nursing home, and outback suburbs in NSW, explaining to them different methods to avoid mosquito. As mentioned by Gitali, it will be helpful to suggest residents from outback suburbs to use "mosquito repellents and net", and "avoid activities like gardening, bushwalking and camping".
	Also, as mentioned by Student p, it is necessary for the public health unit to release a press briefing on the detailed facts, such as how many people were infected, their ages, the area in which they lived, how sick they are and how many have been admitted to hospital. If the information is not available, the spokesperson should explain why and it will be useful to prepare with historical information on the subject (when was the worst outbreak of MVE, what about other States) to discourage sensationalism and irresponsible journalism.

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	Failure to communicate properly with the public will result in breakdown of public health control of the outbreak and will sometimes lead to panic and disaster.
[52]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion Author: STUDENT S Date: 5 September 2008 17:17 *Suggests website or hotline, especially for those contemplating potentially unsafe activities.*
[53]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion Author: STUDENT FF Date: 4 September 2008 07:43 *More on education, including mosquito nets.*
[54]	Subject: Re:third tutor post Topic: Threats #3: Group 3 Discussion Author: STUDENT II Date: 7 September 2008 16:52 *PH Unit should provide media with accurate information. Media should be responsible.*
[55]	Subject: Three more tutor questions Topic: Threats #3: Group 3 Discussion Author: Emily Carpenter Date: 4 September 2008 07:00 hi all, I think you have all grasped that fear is not useful tool when communication messages to the public. Would someone who has not made a substantial contribution yet like to draft up a short media release along the lines we have been discussing? I am interested in your conversations around the development of vaccines - Lee raises some interesting ethical issues that influence all medical research - any other thoughts on how these decisions should be made? I have 2 other questions for you: Mosquito adulticiding equipment is available where should it be best utilized? Mosquito larviciding equipment is available where should it be best utilized?
[56]	Subject: Re:Three more tutor questions..larvicides Topic: Threats #3: Group 3 Discussion Author: SAM Date: 4 September 2008 11:59 I think the decision on where to best use larvicides will be governed by such issues as larval population and epidemiological map. Since culex

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	annulirostris breed on freshwater(especially dirty pools) it may be useful to start there, and essentially means we should target all irrigation ditches,standing pools,freshwater marshes,woodland pools and pastures...areas where there are more human activity and habitation. Again human and animal safety should be guarded but the commonly used ones (a growth-hormone inhibitor & intestinal disturbing element) are safe at prescribed levels. In terms of adulticides again the same issues (mosquito population and outbreak intensity) can guide spraying activities but we need to inform communities that 20% or so of mosquitoes will still recover hence the need to take personal protective measures.Again safety is a big issue but I'm wondering if those released from planes or other vehicles in Australia are the ones that generally disintegrate in sunlight (hence their applications mostly early morning and in the evenings).
[57]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion Author: MINGYU Date: 4 September 2008 17:43 Mosquito larviciding equipment is available where should it be best utilized? The use of mosquito larviciding can be utilized as a temporary chemical or biological control for mosquito sampling and surveillance. Although the use of larvicides is considered temporary, some agents may provide up to six months of control. The use of Bacillus thuringiensis israelensis (B.t.i.) and Bacillus sphaericus as larvicides is considered biological control. They are the most widely used biological agents, which can be utilized in areas where water management projects could create a variety of aquatic habitats favourable for mosquito production.
[58]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion Author: STUDENT FF Date: 4 September 2008 21:25 *Adulticides described.*
[59]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion Author: STUDENT FF Date: 4 September 2008 21:26 *Larvicides described, these are also needed.*
[60]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion Author: FENG Date: 5 September 2008 00:14 I think adulticiding equipment is best used where the presence of the mosquito can potentially infect humans. Areas I would include would be communities with high incidence, residential areas near outbreak areas. The "point zero" if any. Fumigation is one of ways to control adult population. Larviciding equipment would be best used in areas of potential breeding sites. That would include standing ponds, pot plants, rain-water tanks etc.

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	However, a good public education such as clearing leaves from roof gutters, inverting pot plant dishes when not used and covering pot hole. These are needed to reduce potential breeding sites. Bacillus in roof gutters or putting fish into standing ponds can also be used.
[61]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion
	Author: CHUN Date: 5 September 2008 14:50
	I fully agree with everyone's posting of these two questions, Ijust want to make up a point. Is it possible that an infected person stillin incubation moves to a certain city and is bited by mosqito. then the mosqito becomes the vector and breeds in the sewer. if it is possible the larviciding equipment and insecticide should be released in the sewer system.
	I think it is of less possibility, but it is possible, isn't it?
	If some potential case appears in cities or towns, what i mentioned should be concidered.
	Chun
[62]	Subject: short media release Topic: Threats #3: Group 3 Discussion
	Author: STUDENT S Date: 5 September 2008 16:33
	Short media release.
[63]	Subject: Re: Media Release Topic: Threats #3: Group 3 Discussion
	Author: LEE Date: 6 September 2008 01:02
	Hello all,
	It has been two days since the questions were posted, but it looks like we still haven't had a media release yet!
	So if you guys don't mind I will have a go at this.
	I think a media release should cover the following: who, what, where, when, why, how, what to do about it.
	Feel free to make comments or suggestions.
	Lee

	Media Release
	6 September 2008
	Murray Valley Encephalitis Outbreak in Northwest NSW

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	The NSW Greater Western Public Health Unit is currently investigating an outbreak of Murray Valley Encephalitis, following two confirmed locally acquired cases this week.
	One of these men has died, while the other man is currently being treated at Broken Hill Hospital. These are the first two cases of Murray Valley Encephalitis diagnosed in NSW since 1974.
	Several public health officers are currently in the area investigating the cause of the outbreak, as well as assisting in the control of the disease.
	Murrey Valley Encephalitis is caused by a virus. It is transmitted only by mosquito, and not in other ways such as human-to-human contact. Both confirmed cases have a history of repeated mosquito exposure.
	Symptoms of Murray Valley Encephalitis are variable, but they include fever, headache, anorexia, nausea, vomiting, and muscle aches. In a minority of cases, neurological symptoms, such as photophobia, irritability, drowsiness, neck stiffness, and confusion may occur. Only a small proportion of infection causes symptoms, and they are usually mild. However, in a very small number of cases, serious complications and death can occur.
	There is no vaccine or cure for the disease. However prompt medical diagnosis and supportive treatment may help prevent serious complications and death.
	The NSW Greater Western Public Health Unit is advising all residents to avoid being bitten by mosquitoes and to help prevent the breeding of mosquito in the area. In particular, residents should:
	• Wear insect repellent and protective clothing while outdoors
	• Use coils, nets and spray around the home to repel mosquitoes
	• Check around the home, yard, workplace for possible mosquito breeding sites, such as old tyres, buckets, or any open containers or items that contain water. Dispose or store these items appropriately
	Avoiding mosquito bites is the most effective strategy in preventing the disease.
	NSW Health advises anyone with symptoms of Murray Valley Encephalitis as described above, and especially those with a recent history of being bitten by mosquitoes, to see a doctor immediately.
[64]	Subject: Re: Media Release Topic: Threats #3: Group 3 Discussion
	Author: STUDENT JJ Date: 6 September 2008 12:00
	Compliments media release by Lee but feels some terminology could be simplified.
[65]	Subject: Re: Media Release Topic: Threats #3: Group 3 Discussion
	Author: STUDENT EE Date: 6 September 2008 15:20

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	Compliments previous and adds detail re breeding sites.
[66]	Subject: Re: Media Release Topic: Threats #3: Group 3 Discussion
	Author: LEE Date: 6 September 2008 16:00
	Hello Student ee
	Good suggestion about avoiding rivers and waterways. That's a very good point.
	I thought about the role of the birds, but I thought perhaps there is no need to avoid them, since mosquito is the vector. Yeah it's a bit hard to explain their role to the general public.
	Lee
[67]	Subject: Re: Media Release Topic: Threats #3: Group 3 Discussion
	Author: LEE Date: 6 September 2008 15:49
	Hello Student jj
	I agree with you 100% on your thoughts about terminology. Photophobia is the most problematic term. I think lethargy can be changed to tiredness. I would also avoid irritability as it is a bit vague.
	I also take your point about avoid outdoors between dawn and dusk. I did think about that issue, but I feel that asking to to avoid outdoors especially during dusk is a bit too restrictive. But I see your point too.
	Lee
[68]	Subject: Re:Three more tutor questions Topic: Threats #3: Group 3 Discussion
	Author: STUDENT II Date: 7 September 2008 17:15
	Describes mosquito adulticiding and larviciding equipment and variables.
[69]	Subject: last question from Emily Topic: Threats #3: Group 3 Discussion
	Author: Emily Carpenter Date: 6 September 2008 08:00
	A bit quiet out there over the last few days - are people starting to work on their assignment perhaps?
	We have still covered this topic well - you have provided lots of good information about pesticide use and Feng has hit the nail on the head -mosquito adulticiding equipment is best utilised in areas with proven recent virus activity to reduce infective vector populations, whereas mosquito larviciding equipment is be best utilised in areas at risk of activity to reduce emergent vector populations.

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	Thanks for our 2 media releases - as Lee said, components should be a summary of current situation, what we know about the disease, what we are doing about it, how you can prevent disease and how to recognise the symptoms and seek medical advice if unwell. Media releases should always be written in simple language avoiding medical jargon if possible. I would go for a slightly shorter version of Lee's very comprehensive one, with just a few less details - anyone else want to have a go at an abridged version, or do you think that level of detail is ok? Ok, one last question, you might be able to guess what it is: There have been no further local cases after one month. What do you do?
[70]	Subject: Re:last question from Dr Carpenter Topic: Threats #3: Group 3 Discussion Author: STUDENT NN Date: 6 September 2008 11:13 *Need to maintain vigilance and keep informing public. Evaluate and learn.*
[71]	Subject: Re:last question from Dr Carpenter Topic: Threats #3: Group 3 Discussion Author: SAM Date: 6 September 2008 12:51 Just to add onto Student nn's suggestions I agree we should continue our surveillance and start evaluating the response in terms of our preparedness, case management and logistics, control measures,and any lost opportunities. Other areas are: 1. Promote interagency cooperation (entomologists, vets, environmentalists, farmers) at some level and deign any predictive models for future outbreaks based on patterns like rainfall or atmospheric pressure changes 2. Educate communities better on signs of an imminent outbreaks and stress the importance of treatment -seeking behaviour. 3. Suggest Policy changes where appropriate. 4. Regular entomological surveys of adult (mosquitoes) and larva may be recommended on sentinel sites.
[72]	Subject: Re:last question from Dr Carpenter Topic: Threats #3: Group 3 Discussion Author: STUDENT EE Date: 6 September 2008 15:52 *Continued serosurveillance needed on the water birds.*
[73]	Subject: Re:last question from Dr Carpenter Topic: Threats #3: Group 3 Discussion Author: LIZ Date: 6 September 2008 14:12 Even though there have been no furthur local cases for a month, that does not tell us that there is not still an outbreak occurring. So many of the cases are asymptomatic, that there needs to be a continuation of high precautions against mosquitos. It would be important to set up a surveillance, either

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	looking at the moquitos or a sentinal population of animals, to confirm that the outbreak had indeed been contained.
[74]	Subject: Re:last question from Dr Carpenter Topic: Threats #3: Group 3 Discussion
	Author: FENG Date: 8 September 2008 02:18
	I think the surveillance and preventative education should not stop even with no activity for one month.
	Depending on the environment and location, i would continue to advocate preventative measures and provide education in the community.
	this will ensure faster response and identification for the future.
[75]	Subject: last tutor post Topic: Threats #3: Group 3 Discussion
	Author: Emily Carpenter Date: 7 September 2008 19:42
	Hi people, great suggestions. As you all recognize, the most important thing here is to learn from this and make recommendations. As well as checking for evidence of virus activity, you would probably also want to check whether vector populations had been reduced or are seasonally declining.
	I enjoyed your discussion around the media release - as you can see it is a tricky job, which is why all public health units have a dedicated media officer. I will attach a public health alert for MVE in sentinel chickens for your interest too.
	That is it for module 3 - half way there! Good luck with you assignments and chat next Friday.
	Emily
	Attachments: HNE_MVE_public_health_alert_ED.DOC

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1	Subject: Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Dr Carpenter Date: 17 October 2008 19:20
	Hello group 3,
	Apologies for the late posting. Welcome back to your final module, I hope you are all hanging in there. This week we will look at public health responses to HIV, STI and BBV infections. These infections present challenges to the health care system that are very different to many other communicable diseases.
	Answer the questions as they are posted on the discussion board. Comment on the responses of others in your group. Remember your word limit, but also feel free to share good, peer reviewed references when you have them.
	Happy chatting.
	Dr Carpenter
	Case Scenario:
	The local press in Wollongong (a city with an urban population of about 260,000 located about an hour south of Sydney in New South Wales) has run a series of articles on an "outbreak of AIDS" during the last year. The local council wants to shut down the needle exchange program & the two licensed brothels in the area. In addition, Wollongong police have reported an increase in homophobic and racially motivated attacks targeting newly-arrived migrants from Africa.Your Task:
	You are a public health officer working in the local Public Health Unit and are asked to be part of a team called together to respond to the councillors' concerns.
	Question 1:
	How would you investigate the current picture of HIV infections in Wollongong? & determine whether there had been a recent "outbreak"?
2	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student hh Date: 17 October 2008 21:04
	Steps to investigate the current picture of HIV infections in Wollongong.
3	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 17 October 2008 23:27
	Australia has had a national surveillance system for newly diagnosed HIV infection since 1991 (1-2). However, since public health is the responsibility of State governments according to our Constitution, each state has their own HIV surveillance system. HIV notification is mandated by law in all states and territories.

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	Under the NSW Public Health Act (1991), HIV is notifiable by laboratories that carry out confirmatory HIV testing. Following the diagnosis, the doctor is requested to collect information such as demographic information, exposure, and clinical status of the patient. The information is collected and entered into the NSW HIV database. A dedicated HIV Surveillance Officer within the Communicable Disease Branch collects such notification. The information is then forwarded to the National Centre in HIV Epidemiology and Clinical Research (NCHECR) for inclusion on the National HIV database, and to the WHO (3-4). The NSW notification form collects a range of information including the postcode of the usual residence of the patient (5). Therefore, as a first step I would consult the NSW Health Surveillance data, and examine the number of new HIV notifications in the Wollongong area in the relevant time frame determine whether an outbreak has occurred. Lee (References attached)
4	Subject: References Topic: Threats #6: Group 3 Discussion Author: Lee Date: 17 October 2008 23:30 References (1) McDonald AM, Gertig DM, Crofts N, Kaldor JM. A national surveillance system for newly acquired HIV infection in Australia. National HIV Surveillance Committee. Am J Public Health. 1994;84(12):1923–1928. (2) Kaldor J, McDonald A. HIV/AUDS surveillance systems in Australia. J AIDS. 2003,32:S18-23. (3) Menzies R, Delpech V, Griggs L. How does HIV surveillance work in NSW? New South Wales Public Health Bulletin 1999l;10(3):25-28. (4) National Centre in HIV Epidemiology and Clinical Research. Available at: http://www.nchecr.unsw.edu.au/NCHECRweb.nsf/page/Surveillance [Accessed October 17, 2008]. (5) New South Wales Government Department of Health. Notification of HIV infection or death of a person with HIV infection. Available at: http://www.health.nsw.gov.au/Publichealth/infectious/diseases/hivaids.asp [Accessed October 19, 2008]
5	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Sam Date: 18 October 2008 16:34 To add on to Lee's points I would also be interested in knowing the detailed picture of the outbreak if there is any. Information from the NSW Surveilllance data and NSW HIV database should be analysed to get an idea of where the number difference might have come from. The two important areas are the

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	needle exchange program and brothel. Whether these sites (over the past year)might have been attracting a new lots of clients who have had positive HIV or definite newly infected cases.
	We need to know the HIV status of our immigrants, maybe with the assistance of the immigration department.
	Adequate analysis of available information would let us know whether an "outbreak" is due to an increase incidence within a specific subgroup (with a common at-risk activity),or increase migration of HIV +ve people into Woolongong.
6	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 18 October 2008 20:46
	Adding suggestions to Lee and Sam's comments. Contact tracing and risky behaviour.
7	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 19 October 2008 02:36
	Hello Student ee,
	"Being an intravenous drug user or brothel worker etc does not make you high-risk, it is a person's BEHAVIOUR which deems them high-risk. "
	Very provocative statement! Interesting. Is there such thing as safe intravenous drug use? Is there such thing as safe sex with sex workers?
	I prefer to use the tern "safer" sex rather than "safe" sex. Condoms decrease the risk of STI transmission but it's not 100%. I would consider them as at "higher" risk but not necessarily "high" risk.
	Lee
8	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student nn Date: 19 October 2008 11:04
	Agrees with Lee, that the word 'safer' may be more appropriate than 'safe'; better protective behaviours might occur but can be undermined by factors such as poverty.
9	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 19 October 2008 11:46
	Defuses the situation by claiming a typo – 'safe' instead of 'safer'.
10	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 19 October 2008 02:12
	Hello Sam,

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	"We need to know the HIV status of our immigrants, maybe with the assistance of the immigration department. "
	I don't think the immigration department would provide you with and useful information due to confidentiality issues. I doubt they would even provide general declassified data such as how many HIV+ immigrants entered Australia in a last year.
	As an aside: The Australian immigration system has strict health requirements for applicants. Acceptance of HIV+ immigrants is considered on a case-by-case basis by the immigration department, and such acceptance is only made in certain prescribed/limited circumstances.
	All applicants for immigration to Australia must undergo a medical examination, including a Chest Xray and HIV test. (Interestingly TB (=CXR) and HIV are the only two communicable diseases investigated in the application process.)
	Lee
11	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student nn Date: 19 October 2008 10:55
	Adds to previous - a spot map and epidemiology curve for easy interpretation of data.
12	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Gitali Date: 18 October 2008 00:54
	to investigate the current picture of HIV infections in Wollongong and to find out recent outbreak in local area, the following things should be considered:-
	1.)collection of case reported to general practioner and local HIV physician in wollongong ,to obtain exact number of cases reported.
	2.)recent data can be obtained from laboratories,all seropositive cases or tuberculosis associated with HIV
	3.)regular campgin in the area for HIV awareness and ELISA screening test can be performed.screening of blood donors can be done in hospitals.
	4.) Investigate the risk group and homosexual group or community.
	5.)proper history and proper screening of drug or muliple syringe injectors.
	6.)proper screening and collection of datas from indigenious population.
	these all can be done to investigate out break
13	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student jj Date: 18 October 2008 18:33
	Discusses screening of donated blood, which could provide additional useful information.
14	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 19 October 2008 02:27

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	Hello Student jj
	I hope people are not use blood donation as a diagnostic service!
	I don't think blood donation centers would be a good source of information.
	1. Donation rates is extremely low in Australia. Amazingly I can't find any information on blood donation rates in Australia easily online. But from memory we are talking about single digit figure here.
	2. Wollongong is a small regional center. I think the number of people who donate blood there would be very small, and the sample would be too small to provide any useful information.
	3. There would be major bias here - as the population who donate blood would certainly be more healthy. (Similar to health volunteer bias in epi studies?) Most blood donors are repeated donors who are low risk for HIV infection. There are other sociological variables that associate with blood donation rates as well.
	4. Most importantly - those who are most at risk of HIV, such as IV drug users, men who have had sex with men in the past, are NOT allowed to donate blood. Other groups (such as those who lived in the UK during certain times) are excluded as well.
	Lee
15	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student jj Date: 19 October 2008 21:05
	Disagrees with Lee – feels blood donation centres useful for information.
	Stats that did not imply that people are using blood donation as a diagnostic service .
16	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 21 October 2008 15:54
	Hello Student jj
	"And I did not imply that people are using blood donation as a diagnostic service and I don't think people do."
	I couldn't agree with you more. No sound minded people would go donate blood to check their HIV status. My previous statement was just an lame attempt in injecting some light-hearted humour into the discussion. :-)
	Lee
17	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion
	Author: Student ss Date: 19 October 2008 12:20

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	Detail on blood donation questionnaire and refusal of donations.
18	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Student jj Date: 19 October 2008 21:21 *Contact tracing and spot maps need information from all sources.*
19	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Student oo Date: 20 October 2008 11:27 *Blood donation deferral and 'window period'*
20	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Student qq Date: 21 October 2008 13:55 *All sources of information should be taken into account, though some donors may lie about their personal life.*
21	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Lee Date: 21 October 2008 15:44 Hello Student qq As I indicated clearly before I do not think blood donation center would provide much useful information mainly because blood donation specimen very very rarely tested positive for HIV due of blood donors requirements. I think something like 3% of the population ever donated blood. (Sorry I can't find the exact figures.) And these donors are healthy and at low risk of HIV. How can it provide any useful information to us? By the way, I think providing false answers to blood donation questionnaire is a criminal offence! At least this is the case in Canada. I don't not think that "peer pressure" would drive people to provide false answers with a risk of going to prison! The last time I donated blood was in Canada. To avoid the problem of potentially feeling "embarrassed" in answering "yes" to any of the risk factors, all blood donors complete the questionnaire without the any of the staff present or knowing what my answers were in real time. The blood and questionnaire are collected separately, and they are later matched up by lab technicians who have nothing to do with blood collection process. Lee
22	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Student s Date: 19 October 2008 01:06 *Agrees with Lee - surveillance data from the NSW department of health is first step; outlines statistical analysis thereof*
23	Subject: Re:Scenario and first questions Topic: Threats #6: Group 3 Discussion

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	Author: Student rr　　　　Date: 22 October 2008 13:01 *Agrees with above + meetings with clinicians + take care not to stigmatise groups + be really clear if there is an outbreak or not.*
24	Subject: summary and question 2　Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter　　　　Date: 19 October 2008 20:09 Thanks people, you have covered this well. As Lee pointed out, it is mandatory to report HIV+ results to the NSW Health department so the picture of infections through this system should be reasonably comprehensive. See Lee's references to locate these results. In this instance, as Student ee highlighted, it would be important to distinguish whether there is actually an increase in the incidence of new HIV infections, which is presumably what the local press is talking about in their series on "an outbreak of AIDS". Information on the causes of new infections would also be relevant. Student ee also made a very valid point, that the measures that the council wishes to stop are those that are in part responsible to containing the spread of HIV in Australia. The majority of transmissions in Australia are from MSM contact, this pattern differs from a number of other comparable countries such as the USA. There is a high proportion of hysteria surrounding issues like needle exchanges and brothels and we would need to present the council with a clear picture of whether there was an increase in new infections, whether the pattern of people infected was changing and how to best plan for education and prevention. Before we go on, would somebody like to give us a few lines sumarising the current Australian epidemiology of relevance here? And the next question for you, which a few of you touched on in this thread: Question 2: Apart from nationally collected data, what other sources of information would you investigate to clarify the picture?
25	Subject: Re:summary and question 2　　　　Topic: Threats #6: Group 3 Discussion Author: Student ff　　　　Date: 19 October 2008 22:02 *Outlines the current Australian epidemiology of relevance.*
26	Subject: Australian epidemiology　　Topic: Threats #6: Group 3 Discussion Author: Student s　　　　Date: 20 October 2008 02:59 *Details of prevalence and transmission, Australia has a good record but risk groups exist. Provides reference.*
27	Subject: Re:Australian epidemiology　　　　Topic: Threats #6: Group 3 Discussion Author: Sam　　　Date: 20 October 2008 14:47

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	Just to add onto Student S & Student ff on the summary of AIDs epi. in Australia:
	HIV by State:
	1. NSW - declined from 6.1/100,000 to 5.1 in 2001 and then increase again to 6.2 in 2007
	2. Victoria - 2.8/100,000 in 1998-1999 to 5.5 in 2009-7
	3. QLD - increase from 2.9 (1998) to 4.6 (2007)
	4. South Aust. - 2.4(1998) to 3.6 (2007).
	5. Western Aust. - 2.8 (1998) to 3.6 (2007)
	Rate of diagnosis in the
	1. Non-Indigenous population: 3.7/100000 (1998)population to 5.2 in 2007
	2. Indigenous population: 4.6 (1998-2002) to 4.5 (2003-2007).
	Overall there is a stable annual AIDS diagnosis at around 240 from 2001-2007, mostly due to the availability of effective therapies. The decline is remarkable in the indigenous population from a peak of 2.7/100,000 in 2003-2004 to 0.7 /100,000 in 2007.
	Source: HIV/AIDS, Viral hepatitis and sexually transmitted infections in Australia. Annual Surveillance Report 2008.
28	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Student nn Date: 20 October 2008 14:39
	Other sources of information
29	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Mingyu Date: 20 October 2008 15:27
	Hi ,
	I agree with Student nn, apart from gathering data from the NSW HIV database, reference laboratories, medical practitioners and hospitals. Information from STD clinics and antenatal centres may provide additional information to clarify the picture.
	In terms of conducting health surveys, we can look into the number of males who had circumcision, it was shown that male circumcision can provide 60% protection for the acquisition of HIV by heterosexual males in 3 RCTs in east and southern Africa.
30	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 21 October 2008 03:28
	Hello Mingyu,

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	Male circumcision is an important factors in Africa and Asia, but is not relevant in Australia due to the different of pattern of HIV transmission here. These RCTs were conducted in countries in sub-Saharan Africa where transmission is predominantly through heterosexual contact. In Australia, most HIV transmissions occur between men who have sex with men. While a small proportion occurs through heterosexual contacts - many in this group are women who have been infected by their male partners. HIV transmission from a female to male partner only makes up a small proportion of the overall HIV cases in Australia. We can obtain circumcision rates from hospital-source data, but I am unsure whether it would be helpful to our cause. Lee
31	Subject: other infomation Topic: Threats #6: Group 3 Discussion Author: Chun Date: 20 October 2008 16:18 Most HIV infection have the primary symptom of oral manifestation, such as hairy leukoplakia, kaposi's sarcoma, serious periodontal disease and oral candidosis. Hairy leukoplakia, in some research of Africa, has important value of prognosing and diagnosing AIDS. The same do other oral symptoms. Hence, I think infomation from dental clinique should be a important part to clarify the pictures. Since majority of HIV infection have a primary symptoms of oral pathological process, many cases of AIDS should be first reported by dentist. Chun
32	Subject: Re:other infomation Topic: Threats #6: Group 3 Discussion Author: Student nn Date: 20 October 2008 21:53 *- Disagrees with Chun regarding the primary symptoms and role of dentists + ref*
33	Subject: Re:other infomation Topic: Threats #6: Group 3 Discussion Author: Lee Date: 21 October 2008 03:16 Hello Chun, As Student nn pointed out, the symptoms you described are very late manifestations of HIV infection. Acute HIV seroconversion illness is a well recognized syndrome. More than 75% of patients who become infected with HIV develop symptoms consistent with HIV infection. They usually present with a number (but rarely all) of these symptoms: fever, anorexia, fatigue, myalgia, arthralgia, erythematous maculopapular rash, pharyngitis, lymphadenopathy, mucocutaneous ulceration. Symptoms usually occur a few days to a few weeks after exposure to HIV, and usually persists for 2-4 weeks. The diagnosis of primary HIV infection is a clinical challenge, as there symptoms are not specific to HIV infection. The diagnosis is often missed at initial presentation.

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	Therefore there is no role for dentists to diagnose new HIV infection.
	Lee
	Daar ES, Little, S, et al. Diagnosis of primary HIV-1 infection . Los Angeles County Primary HIV Infection Recruitment Network. Ann Intern Med. 2001 Jan 2;134(1):25-9.
	Schacker T, Collier AC, Hughes J, et al. Clinical and epidemiologic features of primary HIV infection . Ann Intern Med. 1996 Aug 15;125(4):257-64.
34	Subject: Re:other infomation Topic: Threats #6: Group 3 Discussion
	Author: Chun Date: 24 October 2008 01:00
	Hi, Student nn and Lee,
	Thank U for your comments. I think I misunderstood the question 2. I just want to point out these symptoms can aid identification of HIV infection in some condition. They are the late manifestitions of HIV infection indeed.
	Thanks for your correction again.
	Chun
35	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Student ff Date: 20 October 2008 20:49
	Sexual health clinics as source of information.
36	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 21 October 2008 03:39
	Is there a sexual health clinic in Wollongong?
	Actually there is! But they only have 4 half-day sessions a week.
	I think it's logical to assume that if a GP diagnoses a new HIV infection, he or she will refer that patient to a specialist service such as a sexual health clinic. However, it's true that certain demographic groups are more likely to use the public rather than the private system.
	My concern is that whether the local sexual health clinic would release information to you. In general they are very strict about confidentiality. Also I think it's safe to assume that many of those new HIV diagnoses in the local area would travel to Sydney to seek specialist medical care.
	Lee
37	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 21 October 2008 12:19

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	Sexual Health Clinics (SHC) good source of information but have strict privacy controls.
38	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion Author: Student pp Date: 22 October 2008 10:39 *Selection bias with SHCs.*
39	Subject: Re:summary and question 2 Topic: Threats #6: Group 3 Discussion Author: Student rr Date: 22 October 2008 13:06 *State HIV Database as first point of call.*
40	Subject: Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 21 October 2008 07:13 Excellent work group 3, this is obviously a topic that interests you. I think we have covered all the relevant epi- although did anyone flag that while rate of 77% ish people with HIV are MSM, this percentage is lower outside Sydney? Also, other Western countries have indicated a shift twd a greater proportion of heterosexually acquired transmission (with consequent issues of mother to child transmission) - something to be aware of in Australia. You have covered other sources of info well - it is important to note (as several of you have) that on top of the NCHECR data sets and behavioural and surveillance data, local academic institutions and health services should be contacted for any data they may be able to provide. Ok, next question: Question 3 The councilors are under pressure from their constituents to "do something" and close down the needle exchange program and brothels. You are invited by the councilors to give a thirty minute presentation on HIV/AIDS. What would be the key components of this presentation?
41	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Student hh Date: 21 October 2008 12:45 *Lists suggested content of presentation.*
42	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 21 October 2008 15:49 Hello Student hh "I would like to demonstrate to the Councilors ... important of keeping ... the brothels... because it help in decreasing HIV and other STI infections through presenting some research studies."

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	I am just curious: how do brothels decrease HIV and STI in Australia? Are you aware of any evidence? Lee
43	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Student oo Date: 21 October 2008 17:23 *Counters that legal brothels may prevent issues from going 'underground'.*
44	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Student hh Date: 22 October 2008 15:42 *Agrees with above*
45	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Student qq Date: 21 October 2008 15:50 *Further details re presentation.*
46	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 21 October 2008 16:16 Hello Student qq, "should also stress on periodic health checks such as when changing partners and recheck at 3 months interval." Do you know of any of the current guidelines or evidence based information in relations to HIV testing for sexually active heterosexuals? homosexuals? sex workers? Surely I don't have to get tested for HIV every time I change partners, or get a blood test every 3 months! I am scared of needles, as well as a blown out health budget for pathology testing. Lee
47	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 26 October 2008 16:13 I raised some questions on Tuesday. Since they are no takers I am going to look into them myself if the group doesn't mind. In terms of guidelines, For MSM, annual testing is recommended (1): • HIV serology, if HIV negative or not tested within the previous year

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	• syphilis serology;
	• Testing for urethral, rectal and pharyngeal infections for gonorrhea and Chlamydia, depending on the type of sexual behaviour the person has engaged in during the preceding year.
	More frequent testing at 3-6 month intervals is indicated for MSM who have multiple or anonymous partners, have sex in conjunction with illicit drug use, use methamphetamine, or whose sex partners participate in those activities
	For sex workers (2):
	In Victoria, licensed sex workers are required to undertake:
	-Monthly examination for visible warts and herpes
	-Monthly testings for chlamydia, gonorrhoea and Trichomonas vaginalis infections
	-3 monthly blood test for HIV and syphilis
	Under the Prostitution Control Act, 1994, it is illegal to work with an STI or have an STI and has not been tested at the above intervals. If they have been recently tested and unknowingly pass on an STI, then they are protected from prosecution.
	Lee
	Reference attached
48	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 26 October 2008 16:16
	References:
	(1) Centers for Disease Control and Prevention. Sexually Transmitted Disease Guidelines. MMWR Morb Mortal Wkly Rep 2006; 55: RR-11
	(2) Prostitution Control Act 1994 (Victoria) and Prostitution Control (Amendment) Act 1997. Available at: www.austlii.edu.au/au/legis/vic/consol_act/pca1994295/
49	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student oo Date: 21 October 2008 17:37
	Presentation should include brief overview on HIV epidemiology, and what CAN be done about reducing the risk of HIV transmission.
50	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 21 October 2008 23:52
	Hello Student oo,

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	Great post.
	I think it's a good idea to mention what can be done about reducing HIV transmission. We should emphasize that shutting down brothels and needle exchange program is not the answer.
	However, it's also important to keep in mind that it's not the role of local governments to "promote safer sex practices including condom use, promoting and subsidising regular health checks for individuals who are at high risk (IVDU, sex workers, MSM, people with multiple partners."
	In Australia, public health (including health promotion and education) is the responsibility of State and Territory governments, and funding for health checks for individuals is the responsibility of the Commonwealth government. The councilors have nothing to do with health promotion, regulation, and funding.
	And yes, I totally agree with you that there is some evidence internationally suggesting needle exchange programs reduce the risk of HIV transmission. These programs are usually controversial from a community and morality point of view, but not in terms of their public health benefit.
	Lee
51	Subject: References Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 22 October 2008 00:04
	References:
	Wodak A, Cooney A. Do needle syringe programs reduce HIV infection among injecting drug users: a comprehensive review of the international evidence. Subst Use Misuse 2006;41:777-813
	Ball AL. HIV, injecting drug use and harm reduction: a public health response. Addiction 2007;102:684-90
	Wodak A. Controlling HIV among injecting drug users: the current status of harm reduction. HIV AIDS Policy Law Rev 2006;11:77-80
	Hilton BA, Thompson R, Moore-Dempsey L, Janzen RG. Harm reduction theories and strategies for control of human immunodeficiency virus: a review of the literature. J Adv Nurs. 2001;33:357-70
52	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student ss Date: 22 October 2008 23:01
	Brothels and needle exchange programs are controversial, but are needed for harm reduction
53	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Chun Date: 24 October 2008 01:25
	Hi, student SS,

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	I just wanna supplement that if the legislation didn't allow commercial sex, would customers of brothels be decreased dramatically? I think most of them didn't want to commit a crime for commercial sex. Of course it involves human right and morality issues.
54	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student ss Date: 24 October 2008 22:36
	Dangers of driving activities underground where they are harder to reach and manage
55	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 21 October 2008 16:10
	I think Student hh come up with a good list.
	However with only 30 minutes, I would omit 3,7, as the importance of HIV testing and treatment options such as HARRT is probably not relevant in the councilors decision making process.
	I would also spend less time on 4,6. If I were talking to policy makers in the state government, I `would probably present evidence-based information on HIV prevention. Local governments do not play a big role in HIV prevention in Australia. Also the difference between HIV and AIDS is really just a technical definition perhaps for their interests, but again not it's not important in their decision making.
	Rather I would focus on presenting evidence-based information on HIV epidemiology in Australia as Student qq suggested. In particular I emphasize that there is no evidence suggesting that needle exchange/brothels increase HIV infection rates in Australia.
	Lee
56	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student pp Date: 22 October 2008 10:58
	Compliments previous, mentions return on investment for needle exchange programs.
57	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student ff Date: 22 October 2008 12:41
	For legal brothels, regulations including regular health checks can lead to decreasing STIs.
58	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion
	Author: Student rr Date: 22 October 2008 13:13
	Address councillors' concerns and provide facts re symptoms, transmission, and epidemiology would be helpful. Show success of programs elsewhere.
59	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion

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	Author: Sam Date: 22 October 2008 14:43 I think the council should be given the opportunity to have a fair idea of the global picture of HIV-prevention programs especially those that involve a good mix of intervention and in respective sub-populations. Cost-effectiveness of such programs must be displayed and detailed with evidence. Much of the presentation should be borne from our findings on the trends of HIV prevalence and the population it hits the hardest nationally and locally. Just an add-on to others' I would still advocate screening as a publlic health measure (?monthly) for sex-workers in this presentation. Condom use and individual health education are generally used in some countries but the councillors need to know too that there is higher condom use in well-organized brothels than on casual sex e,g work-place or other non-commercial sexual behaviours' hence, the call to close down the brothel should be re-visited. On injection drug-use we may also give some evidence on the experiences with countries like Russia and the US whose negligence of NSP contibuted a lot to their soaring HIV prevalence. What the local Gov't can do is to ensure compliance with it regulatory decrees regardiing this (sex) industry and NSP program.
60	Subject: Re:Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Student nn Date: 22 October 2008 15:46 *Agrees with taking cost-effectiveness angle. Also need to openly discuss concerns.*
61	Subject: summary and another question Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 22 October 2008 13:40 Hi all, some great discussion. As Student hh has indicated, we want to keep it basic and not get too bogged down in the details - virology, immumology, clinical features. As you have all picked up on, focus needs to be on transmission and data that demostrates the effectiveness of NSPs and legislation of CSWs. so...you have made your presentation to the local council, covering basic information about HIV and preventing transmission - What additional material would you focus on in a presentation to the local police force? Can you think of any approach you might take to engage this group more effectively?
62	Subject: Re:summary and another question Topic: Threats #6: Group 3 Discussion Author: Student kk Date: 22 October 2008 15:19 *Points to be made to police – reduced used syringes, reduced soliciting on the street, fewer assaults.*
63	Subject: Re:summary and another question Topic: Threats #6: Group 3 Discussion Author: Sam Date: 22 October 2008 16:53

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	I guess policing depends much on what policy/laws are there regarding brothels and IDU (Injecting drug Use)or drugs in general.
	However, we can use the meeting as a foundation on which we can start fostering partnership with these law-enforcing agents so that we can relate to each other with our goals, and understand each others responsibilities and perspectives, and how to work in concert rather than in conflict. Educate each other on the roots of these behaviours so that perfect intervention benefits all.
	Secondly we can liaise with the police on pursuing a training on "harm reduction" so that they can model ways to incorporate the strategies into their law enforcement activities.
	The materials to be presented to this unit (police) should include evidences from around Australia and the world about the risk of criminalising sex workers and drug users especially with harrasment at needle exchange points, treatment clinics; and the same for sex workers' treatment.
	Info: www.ndrelf.gov.au/pub/prevent illicit drug.pdf
64	Subject: Re:summary and another question Topic: Threats #6: Group 3 Discussion
	Author: Dr Carpenter Date: 23 October 2008 12:25
	thanks Sam and Student kk, I agree, as well as covering the material we discussed earlier, an emphasis to engaging local communities and listening to their concerns will be important. Often they have a liason officer for a particular community, so that would be good to find out.
65	Subject: Re:summary and another question Topic: Threats #6: Group 3 Discussion
	Author: Liz Date: 23 October 2008 13:55
	The challenge with the police is that ultimately their job is to stop things that are against the law. Illicit drug use is against the law, and ultimately anyone who injects drugs is committing a crime. Any approach to the police with a harm-minimisation strategy needs to aim to reconcile this. One way to approach this would be to point out that needle exchanges are unlikely to impact on the actual rates of heroin usage. Has anyone come accross any data to support this?
66	Subject: Question 5 Topic: Threats #6: Group 3 Discussion
	Author: Dr Carpenter Date: 23 October 2008 12:26
	Moving right along now group 3, so much to ask you and ony 4 days to do it in!
	Question 5
	I want to focus now on thinking about what sorts of things may have influenced this apparent rise?
67	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 23 October 2008 14:23

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	Factors in apparent rise: Increased testing rates, Increased false positives, Increased true positives, Increased testing in a high-risk group, Increased surveillance and/or notification, Inaccurate data collection (double-counting etc), Misreporting / inaccurate reporting by the media
68	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Gitali Date: 24 October 2008 18:25 i completely agree with your answer, i think in addition to it, the data didnt obtained actual rate of incidences,as well as HIV is sexual disease, so most likely people hesitate to come ahead for screening test for HIV. secondly,improper screening test technique or not covering all epidemic areas,communities (homosexual and drug user),inappropriate sample collections,less number of cases notification in hospitals and to the gps.
69	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student p Date: 25 October 2008 02:09 *Agrees with above; reduced stigma will lead to increased testing rates.*
70	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student p Date: 25 October 2008 02:13 *Link provided: http://www.avert.org/statistics.htm*
71	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Liz Date: 23 October 2008 14:27 It would be important to establish whether there was a true increase in the number of new HIV cases, or whether this apparent rise was due to an increase in testing. If there had been an education and awareness campaign for local GPs in the area, this would potentially lead to an apparent increase in new cases. It is posisble that these may just be new diagnoses of cases aquired some years ago. There are serological assays available that can help to distinguish old and new cases. In Australia, around 70% of HIV transmission is via the MSM route. If there has truly been an increase in HIV, it is likely that behavioural changes have significantly contribute to this rise in new infections. Guy, McDonald, Bartlett, Murray, Giele, Davey, Ranil D Appuhamy, Knibbs, Coleman, Hellard, Grulich and Kaldor; HIV diagnoses in Australia: diverging epidemics within a low-prevalence country, MJA 2007; 187 (8): 437-440
72	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 25 October 2008 01:51

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	Hello Liz "If there had been an education and awareness campaign for local GPs in the area, this would potentially lead to an apparent increase in new cases." I agree with you. Related to that, there could've been a PUBLIC awareness campaign, leading to more people to get tested. Borrowing an example from the field of cancer, in the US, increased media coverage and campaign have led to increased awareness of PSA screening, which consequently translated into more prostate cancer diagnoses. (1) Lee (1) Etzioni R, Penson DF, Legler JM, di Tommaso D, Boer R, Gann PH, Feuer EJ. Overdiagnosis due to prostate-specific antigen screening: lessons from U.S. prostate cancer incidence trends. J Natl Cancer Inst. 2002 Jul 3;94(13):981-90.
73	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 24 October 2008 03:51 Hi Group 3 Like Student ee, I have already done my two original posts, so I can't post. Can anyone else contribute? Question 5 is a great question for discussion. Lee
74	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student nn Date: 24 October 2008 09:24 *Any apparent rise in cases could either reflect reality or be due to bias, confounding or chance*
75	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 25 October 2008 01:42 Hello Student nn, Just wondering - what sort of bias and confounding are you thinking about? Lee
76	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student jj Date: 24 October 2008 10:49 *It could be due to more accurate methods.*
77	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion

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	Author: Student kk Date: 24 October 2008 18:38 *Latent phase – individual may be unwittingly infecting others while symptomless, also deliberate (criminal) infection, improper sterilisation procedures in local facility.*
78	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Sam Date: 24 October 2008 22:12 It is important to know how the various data sources are generated. For example, were rates calculated from prevalence studies, were the rates from sentinal sites generalised. On the other hand it could be a true increase due to (elborating Student ee's point on increase notification) the increase in-migration of people from high prevalence regions of the world.
79	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Chun Date: 25 October 2008 00:33 Hi, Sam, I fully agree with U about some immigration of high prevalence region. In addition, is there some likelihood that some illegal sex workers infected HIV of some 'underground' brothels transmit HIV to other people which leads to a increasing prevalence. Chun
80	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 25 October 2008 02:07 Hello Sam, "increase in-migration of people from high prevalence regions of the world" I agree with you. In fact, many of the heterosexually transmitted cases are linked to high prevalence countries. In Australia, 27% of men and 39% of women who likely acquired HIV through heterosexual sex were born in a high-prevalence country. (1) Similar pattern has been reported in the UK (2) and Europe (3). Lee References (1) Guy R, McDonald AM, Barlett MJ. HIV diagnoses in Australia: diverging epidemics within a low-prevalence country. MJA 2007;187:437-440. (2) Brown AE, Sadler KE, Tomkins SE, et al. Recent trends in HIV and other STIs in the United Kingdom: data to the end of 2002. Sex Transm Infect 2004; 80:

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	159-166. (3) Hamers FF, Downs AM. The changing face of the HIV epidemic in western Europe: what are the implications for public health policies? Lancet 2004; 364: 83-94.
81	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 25 October 2008 09:07 thanks group 3, well covered. There has also been a recent rise in infections attributed to "safe-sex" fatigue (see, for example http://voice.unimelb.edu.au/news/4793/). This "fatigue" may in part be due to the fact that there are so many HIV positive people who live long and relatively healthy lives that there is a degree of complacency.
82	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Feng Date: 25 October 2008 18:20 An interesting thing i found out is that there is a growing trend amongst the gay community to get infected by HIV so that they can continue unprotected casual sex. HIV therapy is now prolonging lives so much so that a HIV positive person may die of causes other than HIV related infections. So perhaps this may contribute to the rise.
83	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student ee Date: 26 October 2008 12:15 Requests source re above; is this illegal?
84	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 26 October 2008 15:07 Hello Feng, I agree with Student ee. I think it is important to provide evidence to back up controversial claims. Especially in this case, such claims may encourage prejudice against a socially disadvantaged minority group. Like Student ee, I am interested to find out the source of your information. As far as I know, there is little evidence to suggest that gay men are deliberately infecting themselves so that they can have unprotected sex. I cannot find any evidence to support this so call "bug-chasing" culture from my research. It could be just an urban myth. But I could be wrong.

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	However, I am open minded and would be interested in reading more on this. Lee
85	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Student ee Date: 26 October 2008 18:24 *Clarifies that not questioning Feng's posting but rationale of people who do this.*
86	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 27 October 2008 01:37 Hello Student ee As Dr Carpenter suggested there are still unanswered questions in this area and more research is needed. I think there is evidence for either side, but there isn't much good evidence in the literature. It's a controversial area. However, I have provided you with some links to articles from the BBC and the Associate Press as you seem interested. Cheers, Lee http://asap.ap.org/stories/644566.s http://news.bbc.co.uk/2/hi/health/4895012.stm http://www.pinknews.co.uk/news/articles/2005-1104.html
87	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 26 October 2008 21:40 An interesting discussion guys. There is definitely evidence of men who are HIV negative having intentional unprotected sex with HIV positive men. Their reasons are complicated and can range from wanting to be seropositive because their partner is, to not wanting to have the fear of becoming HIV positive always hanging over them. Difficult to quantify the extent of the problem but researchers have tried - perhaps one of you can check it out and get back to us? I like your question of if it should be illegal Student ee - it begs the question, where do you draw the line with legislating unsafe health behaviours when there are so many potentially fatal ones?
88	Subject: DON'T FORGET TO COMPLETE YOUR ONLINE SURVEY FOR THE RESEARCH PROJECT Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 23 October 2008 12:30

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	Under "Online research project" on the contents page
89	Subject: Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 25 October 2008 09:19 Hi group 3, sorry I didn't get to post a question yesterday, here's 2 now to make up for it! Question 6 What would be the key components of a targeted HIV prevention program in the city? Question 7 How might HIV testing rates be raised locally? (this question has been pretty well covered by you already - a quick summary might do unless you have something to add) I will check back in later to see how you are going with these.
90	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Student ff Date: 25 October 2008 12:26 *Discusses complacency and media campaigns to counter it.*
91	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Feng Date: 25 October 2008 18:13 I think one key component to HIv prevention is to identify and connect with the high risk population. This includes, IVDUs, gay, transgender and lesbian, high risk takers, sex workers etc. An education program with an outreach program targeting this population should aim to recruit people from within these groups to evangelise HIV prevention. Harm prevention by providing needle exchange and free condoms may help.
92	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 26 October 2008 15:23 Hello Feng, I agree with you. Identifying high risk groups is a pre-requisite to planning and implementation of a effectiveness control program. Just a very minor point though - I don't think transgender and lesbian people are at high risk of HIV infection. Just to clarify I am not picking on minor details here. I raise this point in particular because many public health and medical professionals consider gay and lesbian people as one group. But in fact, the 2

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	groups are quite different. It is important to recognize that they are faced with a different set of health issues and have different health needs. Lee
93	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Student nn Date: 25 October 2008 19:15 Question 6 *Comprehensive understanding of the situation needed before being able to design targeted prevention strategy.*
94	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Student ee Date: 26 October 2008 12:19 *Council's suggestions to close brothels and the needle exchange programs are against the very strategies which reduce the risk.*
95	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Lee Date: 26 October 2008 15:30 Hello Student nn "discussion with people who engage in high-risk behaviours to understand their motivations and design strategies with them to reduce HIV infection" I think this is a great idea. There is definitely potential in this area of research. Perhaps we can do a focus group for hypothesis synthesis, followed by with a community survey? I think psychological aspects to health seeking (or risk taking) behaviour is quite interesting. Such research should help improve the effectiveness of health promotion strategies. Lee
96	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Mingyu Date: 26 October 2008 18:18 I agree with Student nn's point on designing strategies to discuss with people who engaged in high-risk behaviours to understand their motivations and subsequently reduce HIV infection. I think interventions aiming at reducing risky behaviours can be conducted based on the theoretical grounds of i) employing information-motivation-behaviour model to examine risk taking behaviour, ii) use of motivational interviewing in the intervention together with iii) utilizing cognitive bahavioural skills training. Hence, the intervention should comprise of teaching individuals 1) information about the strong links between coping with stress and risk behaviours, and 2) the benefits of self care through abstinence, mutual monogamy, consistent condom use and help seeking for other problems they may face.
97	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion

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	Author: Student ff Date: 27 October 2008 13:11 *While it is important to identify high risk groups, general educational program is needed, especially for adolescents.*
98	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Gitali Date: 26 October 2008 15:27 HIV prevention program must includes:- 1.)High risk groups:-homosexual communities,perinatal screening of child bearing mother in 3rd trimester, drug user,heterosexual those had multiple sexual partners. 2.)Blood bank,blood collection analysis,proper history of individual before blood collection or proper screening,before blood collection and even rechecking blood bag after collection. 3.)Compulsory screening to large endemic area,where frequency and large number of HIV cases were reported to GP or AIDS centre. 4.)Maternal screening for HIV in 3rd trimester. 5.)Screening for patients,thoe who had past history of blood transfusion. the testing rate could be increased locally by doing various promotions such as:- 1.) AIDS awareness campagin,survey programme after every quaterly. 2.)Posters,media,newpaper awareness advertisements. 3.)Information booth for awareness on HIV and related consequences. 4.)Regular data entering recording from AIDS,STI hospitals-and promoting health workers to distribute in area where is endemic and educate population on HIV. 5.)Distributing trends nurse and public health worker to educate people in rural and urban areas.
99	Subject: Re:Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Student rr Date: 27 October 2008 13:24 *Specific and general suggestions for HIV prevention in the city*
100	Subject: Discussion and question 8 Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter Date: 26 October 2008 09:42 Hi people, thanks for your responses. As you say Student nn, an understanding of the reason for the raised rates in the city is key here - this will allow core identified groups to be targeted appropriately. Involving effected communities is a great idea Feng, to improve design and deployment. You are all right to

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	emphasise harm reduction rather than prohibition, which evidence shows doesn't work.
	Does anyone want to add to this? Or talk about how we might raise local HIV testing rates (q 7)?
	I also have one last question for you:
	Question 8
	How would you evaluate the effectiveness of your response?
	it is going to be a lovely day - I hope a few of you still check in to answer these last questions.
	Speak later.
101	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 26 October 2008 12:31
	Suggests mobile units to collect blood for testing in high risk areas, clubs etc.
102	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student p Date: 26 October 2008 12:49
	Agrees with mobile testing – less daunting.
103	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 26 October 2008 14:53
	Hello Student ee,
	I think it's a great idea. In fact it's already happening in Australia. Monthly STI check-up services are available in many gay sex venues in most capital cities.
	In addition, this is relatively easy to do as compared to say mammography, since heavy equipment and infrastructure are not needed. All that's required is a pathology collector/nurse and medial supply relevant to specimen collection.
	Lee
104	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 26 October 2008 18:30
	Asks for more detail re mobile testing.
105	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 26 October 2008 20:40

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	Hello Student ee,
	Thank you for your question.
	In my previous post I was referring to outreach sexual health clinics at sex on premises venues (SOPV). There is more information on page 16-17 on this report (1), and in this article (2).
	I think there are doctors and/or nurses providing STI information and doing check-ups, and they can draw blood at the same time for serology as well if desired.
	Lee
	Reference:
	(1) The Australian Federation of AIDS Organisations. Mapping HIV and STI Prevention Programs and Actvitites Targeting gay and other homosexually active men.
	Available at: http://www.afao.org.au/library_docs/ANET/Gay-MSM_Mapping_Report_2005-2006.pdf
	[Accessed October 26, 2008]
	(2) Snow A. Sexual health outreach clinics for homosexually active men. Aust Nurs J 2006;14:39.
106	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student ee Date: 26 October 2008 21:39
	Mobile and similar informal testing should be expanded.
107	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student p Date: 26 October 2008 12:40
	Steps to raise local HIV testing rates
108	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student ff Date: 27 October 2008 12:55
	The mobile units for remote areas testing, to reach those not otherwise reached.
	109 DUPLICATE Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student ff Date: 27 October 2008 12:57
110	Subject: Re:Discussion and question 8 Topic: Threats #6: Group 3 Discussion
	Author: Student p Date: 26 October 2008 15:13

ID	**Module 6 Group 3**
	Surveys prior to and after the intervention (promotional/educational), to evaluate effectiveness.
111	Subject: Re:Discussion and question 8　　　Topic: Threats #6: Group 3 Discussion Author: Mingyu　Date: 26 October 2008 18:20 As Lee mentioned, focus group and community survey could help evaluate the effectiveness of interventions. Focus groups are qualitative approaches that can provide feedback and tailor the intervention appropriately. At the same time, research team can work in close collaboration with the Wollongong non-profit community based organization that currently offers workshops and support groups for sex workers and drug users (if any). It is important to understand that an effective evaluation program relies on multiple techniques to examine the relationship between biomedical, behavioural and socio-demographic data. Which in turn, emphasizes links between outcome data from program interventions, patterns of HIV prevalence, and estimates of cost-effectiveness for interpreting and explaining observed epidemiological HIV trends.
112	Subject: Summary　　　Topic: Threats #6: Group 3 Discussion Author: Dr Carpenter　　Date: 26 October 2008 22:02 Hi again group 3 Great to see you engaging with these complex issues. Lots of really interesting discussions going on back in the earlier posts too, make sure you all take a look. With regard to improving testing rates, some nice ideas there, great discussion on testing in SOPV. The suggestion of better testing - e.g. same day, buccal swabbing, - is also a good one. Screening all pregnant mothers would be another way to go. Down to the tricky issue of evaluation...as you have suggested, the use of endpoints such as sexual health centre use and HIV testing rates are a helpful proxy. Awareness of the campaign or intervention isn't too hard to measure - phone surveys etc. to measure prompted and unprompted recall should work. Knowledge also can be tested with a survey and can be assessed before and after. But behaviour, what you really want to know about, is more difficult to measure, particularly if it is a stigmatized one such as condom use. Mingyu is right, it will require multiple techniques to look for behaviour change and may need to be anonymous. Well, that is all from me. Thanks for being a particularly enthusiastic and diligent online discussion group - you have all worked really well together and I hope you have learnt a lot along the way. I would love to hear any comments or feedback you have on how the online discussion modules ran as I will be talking with Brad about how to improve on them for next year. Good luck with the rest of your course. All the best, Dr Carpenter
113	Subject: YIPEEEE! Another subject over!　　　Topic: Threats #6: Group 3 Discussion

ID	**Module 6 Group 3**
	Author: Student ee Date: 26 October 2008 22:12
	Thanks all participants for ideas – has learnt much. Also thanks moderator: 'The way you've kept involved and kept the discussions moving along so they don't become stagnanted and repetitive has made these discussions informative and enjoyable'.
114	Subject: Re:YIPEEEE! Another subject over! Topic: Threats #6: Group 3 Discussion
	Author: Lee Date: 26 October 2008 23:55
	Yes I agree with Student ee.
	Thank you everyone to sharing ideas. Thank you Dr Carpenter for the very good summaries and making us think about issues. It has been enjoyable.
	Lee
115	Subject: Re:YIPEEEE! Another subject over! Topic: Threats #6: Group 3 Discussion
	Author: Student ff Date: 27 October 2008 13:01
	Agrees with above.

Appendix 1.7 Case 1 Getting to know you

It has not been possible to provide the full transcript of Getting to know you, as there is sufficient personal and professional information in it to identify some participants, who have been guaranteed anonymity. For this reason, the posts are presented in the table below showing just the pseudonym or other identifier and any expressions of attitude which occurred in their posts.

The moderator begins by stating his qualifications, work experience and interest in travel. He then poses the question:

So, create a new thread, put your name in the subject line, then write a few lines letting us all know where you are, what work you are doing, and why you are interested in communicable disease control.

Attitude in responses

Group 1

Name	Attitude
Sonya	I look forward to participating and learning with you all.
David	Interest x1
Jane	Hope x 1
Simon	looking forward to a change in direction
Student M	Interested x 1(content)
Student E	Interesting, ignited interest Wish you well for semester
Student D	'Some i nterest'; hope [course]
Janet	Interest (content) Look forward to chatting online :-)
Mahmoud	Interest/ content Best regards to all
Lyn	Great job Love the challenge of new subjects
Student A	Important related issue (content) Best regards

T	Deepen understanding
	Great interest (subject)
	Necessary knowledge
Jiang	(Hong Kong)
	Hopefully finish
	Interesting [subject]
	Hope I can learn and share from everyone
Student N	Have an interest /quite excited
Abdul	i hope we all get benefit and knowledge./
	I wish u all the best
Student K	I am really looking forward to this course because I find infectious diseases fascinating
Student ii	with the hope that I would get essential knowledge (unit choice)/ nice to work with you (Liqin)
Liqin	importance of infection control,/ to enhance my knowledge./ challenging and exciting (topic) / Am looking forward to have discussion with you/ happy working together ☺ (Student ii)
Student C	Increading PH problem (TB) / I hope .. broaden my understanding
Yinyu	I am looking forward to learning from you.
	:)
Ellen	Wow, there is a wealth of experience among the people in this group./ Looking forward to hearing about all your experiences
	very much looking forward to getting the project underway.
	nice to meet you! [to other student]
Student W	looking forward to getting involved [discussions]

Group 2

Name	Attitude
Student CC	Interest x 2 hope + future career /–ve wrt winter
Joumana	Looking forward to the course
Student Q	nice contrast (other subjects studied)

Elise	What a great line-up of qualifications and achievements!
	See you online!
Student U	hope to broaden my horizons (content)
Dianna	I am very much looking forward to starting the course
Student DD	This subject is a must ...
Student V	Interested (IT/health)
	am really looking forward to getting a better understanding
Student Y	I hope to gain further insight and knowledge I hope to gain further insight and knowledge
Daquan	Interest/ believe i will gain great insight/ I am looking forward to working with you all
Student R	great to know something in medicine other than science.
Student AA	Would like to use (knowledge) / I look forward to speaking to you all on line,/ enjoy the course!!:)
Student F	wishful to learn novel concept / this course would pose some challenge/ Hope that we can have a wonderful learning experience!
Student ll	loking forward to meeting/working with you this semester :)
Student BB	nice to meet u
	lookin forward to meetin u
	hope we can share experiences together of the course
	i am in the same boat as u
	[other student]
	nice to know you are a doctor.
	i believe we have allready met [other student 2]
Student X	enjoy studying / You all have great experience and i think this will be of great benefit during the time we are studying together.
Student L	always fascinated me (PH)

Group 3

Name	Other
Student EE	Interest x 1
Sam (2 posts)	Hope to complete

	Hoping to gain a lot
	Subject necessary
Student HH	Interest/ content; look forward learning and sharing the idea with you all
Student ii	Favourite subject
	Particularly interested – content x 2 =)
Student NN	I am really looking forward to working and learning from you all.
Student GG	I 'm looking forward to bthis subject
	(recog some students from S1)
Gitali 2 posts	India/ looking forward for group for discussion, / i would love to participate/ thanking you all / god bless
Student P	it seems that we are all from different backgrounds, which I think is great for online/discussion based learning. :)/ hope to learn more/ Keen and looking forward to our upcoming online discussions :)
	Thanks (Vicki)
Student KK	... Hoping I can successfully combine / Look forward to learning from you all online..
Student SS	Interest (subject)
	Looking forward (course)
Liz	better overall view / I'm looking forward to hearing everyone's ideas.
Student oo	
Student FF	Interest
Chun	Interst (course), hope to learn something interesting
Mingyu	Quite interesting / to find out more
Feng	Nice to meet everyone
Student PP	Hope – give good knowledge base (course)/ nice ot meet you all
Student S	Glad to see so many people enrolled in this class,/ hope everyone does a good job!
Student RR	Masters would contribute to a more well rounded knowledge
Lee	Most interested (content)
	Looking forward (unit)

Moderator comment: *There is a great range of professional and personal backgrounds here, and I look forward to hearing from all of you during the discussions.*

Commentary

Student self-introductions notionally fulfil the same function as moderator self-introductions and realise attitude in similar ways, with one notable exception. They only occurred in *Case 1,* as students in the other cases had met face to face before moving online.

Student self-introductions were a conscious attempt to build a community of learners from the outset. Taking literally Salmon's (2000) advice to provide for 'online socialisation' (Stage 2 of her 5-stage model), the unit coordinator provided a separate discussion topic, *Getting to know you*, where students could introduce and describe themselves and (virtually) meet others in the cohort as a whole (not just in their own group) before the discussion proper started. This also corresponds to guidelines within the Community of Inquiry model (and elsewhere) for establishing social presence by self-disclosure.

The unit coordinator's initial post in *Getting to know you* asked students to provide some information about their geographical location, their work and reasons for their interest in the unit. The coordinator provided details of his own qualifications, professional experience and interests. After 3 days and 50 posts, he stepped in to encourage those who had not posted to do so, using familiar ATTITUDE resources:

 There is a great range of professional and personal backgrounds here, and I look forward to hearing from all of you during the discussions.

This post with its invoked JUDGEMENT: capacity and AFFECT: irrealis, elicited a further 8 posts. Over 80% of students enrolled at the start of the unit responded to the moderator's request; some posted several times. Most started with a greeting, slightly fewer signed off; most posts addressed the whole cohort while 4 addressed named others who they had met in other contexts. It should be noted that it was implied in course documentation that *Getting to know you* was part of the assessable discussion – non-assessable 'social' discussions set up in other online units of study in the same institutional context rarely received more than one or two posts. *Getting to know you* functioned therefore as a type of enforced socialisation.

All posts from students who remained in the unit throughout the remaining discussions were analysed for ATTITUDE. All instances were noted where the target was the unit of study and its processes, public health knowledge, public health careers and the cohort and individual students, including the poster him/herself. For ethical reasons (easy identification of consenting students), the full transcript cannot be provided; instead Appendix 1.8.1 lists all forms of ATTITUDE found and typical realisations. All but one post contained ATTITUDE or an expression of good wishes to peers or both; seven posts contained at least one emoticon (rarely seen in the discussions proper). The evaluation

found in these posts is overwhelmingly positive (the only negative evaluation concerned the weather). By far the most common ATTITUDE type is AFFECT (expressing emotion, 76 instances), followed by APPRECIATION (14) with JUDGEMENT (10) trailing. Most ATTITUDE was inscribed rather than invoked.

Roughly one third of posts responded to the terms of the question and included one or more instances of AFFECT: satisfaction: interest. These evaluated the unit of study and its content (13 instances) and the field of public health more broadly (6), mainly realised adjectivally or with a nominalisation. There was a slight tendency to grade these meanings up. More numerically significant, however, was AFFECT: desire: irrealis triggered (not unexpectedly) by the prospect of meeting and learning with others, participating in discussions, learning new content and improving career prospects. In nearly 40% of posts this was realised by *look/ looking forward* (occasionally upscaled e.g. *really looking forward*) and in nearly 30% of posts by *I hope/ I'm hoping* – a narrow band of realisations. In a further 11 posts students expressed AFFECT: happiness about being in the group. Unlike interest, desire and happiness were not suggested by the question.

APPRECIATION was represented mainly by VALUATION of the content to be learnt. The use of JUDGEMENT was interesting. Moderators used invoked judgement to affirm students. Although in three student self-introductions it evaluated others' qualifications, experience and varied backgrounds (JUDGEMENT: capacity), it was more commonly used by students to present their own abilities, skills and orientation, using terms such as *love the challenge, keen* (coded as JUDGEMENT: tenacity) or, more commonly, the improvements in their knowledge and understanding which they hoped the course would bring about, for example *deepen understanding*, coded as JUDGEMENT: capacity: irrealis, upscaled. This begins the process of identity creation. Finally, students show signs of taking on the role of ideal online learners, predisposed perhaps by some orientation and course materials or previous experience: *learn and share from everyone/ working together / different backgrounds, great benefit for online learning.*

To summarise, this discussion, characterised by dense evaluative language, started the unit with a surge of interpersonal warmth and positive acknowledgement of others. This set the scene for community-building and potentially provided an affective base for learning. Much of the evaluation was spontaneously provided by students (without modelling or questions from the moderator), perhaps drawing on models of workplace communication such as emails. However, the subsequent content-related discussions reveal a far lower evaluative density, and it may be that the *Getting to know you* discussion served to quarantine interaction of a highly social and affective nature away from the more 'serious' content-based discussion. This was possibly detrimental to sustained community-building, but had some positive implications. In terms of moderation guidelines, it is not clear whether a quarantined *Getting to know you* section should be recommended, or whether self-disclosure related to, and integrated with, the content under discussion would be preferable.

Appendix 1.8 Case 1 Sample APPRAISAL analysis: Module 6 Group 3 moderator only

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	Subject: Scenario and first questions Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 17 October 2008 19:20 Hello group 3, Apologies for the late posting. Welcome back to your final module, I hope you are all hanging in there. This week we will look at public health responses to HIV, STI and BBV infections. These infections present challenges to the health care system that are very different to many other communicable diseases. Answer the questions as they are posted on the discussion board. Comment on the responses of others in your group. Remember your word limit, but also feel free to share good, peer reviewed references when you have them. Happy chatting. Emily	**Apols** – unhappiness – ve inscribed **Welcome** – aff formula **Hope** – desire, irrealis **Happy** – happiness, ascribed to students	**Challenges** Reaction – impact **Good, peer reviewed** – both valuation 2x inscribed positive	**Hanging** - Tenacity – ascribed			Greeting/ naming metaphor Congruent instruction: answer ...comment... remember; feel free – somewhat softened Chatting - spoken

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ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	Subject: summary and question 2 Topic: Threats #6: Group 3 Discussion						Same metaphor Naming – people
	Author: Emily Carpenter Date: 19 October 2008 20:09			Covered - Tenacity +ve invoked		Well - + but not much	
	Thanks people, you have covered this well. As Lee pointed out, it is mandatory to report HIV+ results to the NSW Health department so the picture of infections through this system should be reasonably comprehensive. See Lee's references to locate these results.		Comp: valuation +ve inscribed			Reasonably - + but not much – not completely	Naming students – Lee mostly but some others
	In this instance, as Student ee highlighted, it would be important to distinguish whether there is actually an increase in the incidence of new HIV infections, which is presumably what the local press is talking about in their series on "an outbreak of AIDS". Information on the causes of new infections would also be relevant.		Impt: valuation + inscribed				
	Student ee also made a very valid point, that the measures that the council wishes to stop are those that are in part responsible to containing the spread of HIV in Australia. The majority of transmissions in Australia are from MSM contact, this pattern differs from a number of other comparable countries such as the USA. There is a high proportion of hysteria surrounding issues like needle exchanges and brothels and we would need to present the council with a clear picture of whether there was an increase in new infections, whether the pattern of	Hysteria – insecurity –	Valid – valuation			Hysteria – force instensity +	

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	people infected was changing and how to best plan for education and prevention. Before we go on, would somebody like to give us a few lines summarising the current Australian epidemiology of relevance here? And the next question for you, which a few of you touched on in this thread: Question 2: Apart from nationally collected data, what other sources of information would you investigate to clarify the picture?	disquiet – attributed to others	**Clear** – composition: complexity + **Relevant** – valuation+ inscribed Clarify = infused = make clear = valuation+			infused Increae – force – quant - infused	
	Subject: Discussion and question 3 Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 21 October 2008 07:13 Excellent work group 3, this is obviously a topic that						

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	interests you. I think we have covered all the relevant epi- although did anyone flag that while rate of 77% ish people with HIV are MSM, this percentage is lower outside Sydney? Also, other Western countries have indicated a shift twd a greater proportion of heterosexually acquired transmission (with consequent issues of mother to child transmission) - something to be aware of in Australia.

You have covered other sources of info well - it is important to note (as several of you have) that on top of the NCHECR data sets and behavioural and surveillance data, local academic institutions and health services should be contacted for any data they may be able to provide.

Ok, next question:

Question 3
The councilors are under pressure from their constituents to "do something" and close down the needle exchange program and brothels. You are invited by the councilors to give a thirty minute presentation on HIV/AIDS. What would be the key components of this presentation? | | **Excellent:** valuation inscribed +
Relevant – valuation inscribed+

Important – valuation + inscribed | **Covered –** tenacity+ invoked | | Force instens +

Infused – force + strong | Covered metaphor

Heading or IP metaphor?

Heading |
| | | | **Key** - vlauation | | | | |

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	Subject: summary and another question Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 22 October 2008 13:40 Hi all, some great discussion. As Student hh has indicated, we want to keep it basic and not get too bogged down in the details - virology, immumology, clinical features. As you have all picked up on, focus needs to be on transmission and data that demostrates the effectiveness of NSPs and legislation of CSWs. so...you have made your presentation to the local council, covering basic information about HIV and preventing transmission - What additional material would you focus on in a presentation to the local police force? Can you think of any approach you might take to engage this group more effectively?		**Great** – reaction: impact **Basic** – composition – complexity - inscribed(simple is good) **Bogged** – composition – complexity – invoked +ve **Basic** – as above Effectiveness – valuation + **Effectively** – <u>valuation + inscribed (engagement with group)</u>			All - Some - Force – intens+	
	Subject: Re:summary and another question Topic: Threats #6: Group 3 Discussion						

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	Author: Emily Carpenter Date: 23 October 2008 12:25 thanks Sam and Student kk, I agree, as well as covering the material we discussed earlier, an emphasis to engaging local communities and listening to their concerns will be important. Often they have a liason officer for a particular community, so that would be good to find out.	**Thanks** – aff - formulaic	**Good** – valuation (information re liaison officer)				Abrupt start but names individuals
	Subject: Question 5 Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 23 October 2008 12:26 Moving right along now group 3, so much to ask you and ony 4 days to do it in! Question 5 I want to focus now on thinking about what sorts of things may have influenced this apparent rise?						regulative IPmetaphor – want to focus
	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 25 October 2008 09:07 thanks group 3, well covered. There has also been a recent rise in infections attributed to "safe-sex" fatigue (see, for example	Thanks - formulaic		**Covered** – tenacity + invoked (abbreviated			Coverage metaphor

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	http://voice.unimelb.edu.au/news/4793/). This "fatigue" may in part be due to the fact that there are so many HIV positive people who live long and relatively healthy lives that there is a degree of complacency.			form) **Complacency** – propriety negative but softened		Degree – softened to avoid offence	
	Subject: Re:Question 5 Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 26 October 2008 21:40 An interesting discussion guys. There is definitely evidence of men who are HIV negative having intentional unprotected sex with HIV positive men. Their reasons are complicated and can range from wanting to be seropositive because their partner is, to not wanting to have the fear of becoming HIV positive always hanging over them. Difficult to quantify the extent of the problem but researchers have tried - perhaps one of you can check it out and get back to us? I like your question of if it should be illegal Student ee - it begs the question, where do you draw the line with legislating unsafe health behaviours when there are so many potentially fatal ones?	**Like** – inclination – desire +ve	**Interesting** - Reaction – impact **Complicated** – compistion – complexty (neither good nor bad?) **Difficult** – compositon – complexity	**Unprotected** – could be judgement but this is avoided here by giving reasons **Unsafe** – propriety? – veinvoked?		Def – focus? Like - grad	Naming
	Subject: DON'T FORGET TO COMPLETE YOUR						Imperative

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	ONLINE SURVEY FOR THE RESEARCH PROJECT Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 23 October 2008 12:30 Under "Online research project" on the contents page						
	Subject: Questions 6 and 7 Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 25 October 2008 09:19 Hi group 3, sorry I didn't get to post a question yesterday, here's 2 now to make up for it! Question 6 What would be the key components of a targeted HIV prevention program in the city? Question 7 How might HIV testing rates be raised locally? (this question has been pretty well covered by you already - a quick summary might do unless you have something to add) I will check back in later to see how you are going with these.		**Key** - valuation **Targeted** – valuation **covered** – tenacity + but graded, invoked - passive				Greeting and naming IP metaphor Small attempt at humour metaphor ?reg
	Subject: Discussion and question 8 Topic: Threats #6: Group 3 Discussion						

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	Author: Emily Carpenter Date: 26 October 2008 09:42 Hi people, thanks for your responses. As you say Student nn, an understanding of the reason for the raised rates in the city is key here - this will allow core identified groups to be targeted appropriately. Involving effected communities is a great idea Feng, to improve design and deployment. You are all right to emphasise harm reduction rather than prohibition, which evidence shows doesn't work. Does anyone want to add to this? Or talk about how we might raise local HIV testing rates (q 7)? I also have one last question for you: Question 8 How would you evaluate the effectiveness of your response? it is going to be a lovely day - I hope a few of you still check in to answer these last questions. Speak later.	**Thanks** – formula **Hope** – desire - irrealis	**Key** – valuation – infused i.e. key consideration **Effectiveness** – valuation - ? **Lovely** – reaction – quality – weather	**Appropriately** - propriety 	**Rather than** – counter??		IP metaphors throughout Spoken metaphor
112	Subject: Summary Topic: Threats #6: Group 3 Discussion Author: Emily Carpenter Date: 26 October 2008 22:02 Hi again group 3 Great to see you engaging with these complex	**Great** -	**Complex** -	**Engaging...** –		**Great** – force – intens+ **Lots** – force – quant	Greeting and

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	issues. Lots of really interesting discussions going on back in the earlier posts too, make sure you all take a look. With regard to improving testing rates, some nice ideas there, great discussion on testing in SOPV. The suggestion of better testing - e.g. same day, buccal swabbing, - is also a good one. Screening all pregnant mothers would be another way to go. Down to the tricky issue of evaluation...as you have suggested, the use of endpoints such as sexual health centre use and HIV testing rates are a helpful proxy. Awareness of the campaign or intervention isn't too hard to measure - phone surveys etc. to measure prompted and unprompted recall should work. Knowledge also can be tested with a survey and can be assessed before and after. But behaviour, what you really want to know about, is more difficult to measure, particularly if it is a stigmatized one such as condom use. Mingyu is right, it will require multiple techniques to look for behaviour change and may need to be anonymous. Well, that is all from me. Thanks for being a particularly enthusiastic and diligent online	Happiness – cheer	Composition - complexity **Interesting** – reaction: impact **Nice** – reaction – quality (ideas) **Great** – reaction – quality (discussion) **Good** – reaction: valuation (suggestion) **Tricky** – composition – complexity neg inscribed **Helpful** – valuation **Hard to measure** – composition: complexity neg to here turned +ve (awareness)	tenacity + invoked **Lots of** – whole sentence – invoked judgement: capacity **Nice** – great: extended invoked judgement: capacity **Suggestion** etc – extend invoked judg: capacity – generalised **Stigmatised** (behaviour) – propr – target = people who judge this behaviour		**Really** – force – intens Nice – grad – less than great? Really – focus? Particularly – focus? Multiple - quant	naming Make sure .. imp Noun groups

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	discussion group - you have all worked really well together and I hope you have learnt a lot along the way. I would love to hear any comments or feedback you have on how the online discussion modules ran as I will be talking with [unit coordinator] about how to improve on them for next year. Good luck with the rest of your course. All the best, Emily	Thanks - form **Hope** – inclination – desire – irrealis **Love** – happiness – irrealis **Good luck** – formul **All the best** - formul		**Enthusiastic** - cap **Diligent etc** – extended Judgement – tenacity - invoked **Worked …**- extended – tenacity – invoked – graded up			Way – journey metaphor

Appendix 2 Case 2

Appendix 2.1 Unit description

Case 2 was a blended unit undertaken almost exclusively by students in the degree program for which it was designed (as a compulsory unit). Participants had met face-to-face (in a one-day intensive workshop) before starting the online component. However the cohort was rather large (over 100 students) so it is not clear to what extent they would have had the chance to get to know each other. However, there was an opportunity to meet up in the other compulsory unit, which had more face to face activities. The cohort was randomly divided into six online discussion groups for Modules 1 and 3; Module 2 had no online discussion.

The module objectives (taken from the study guide) are:

- Differentiate the concepts of equality and equity as they apply to public health
- Summarise the evidence and debates about patterns and explanations of inequity in health
- Critically review the interactions of social, cultural and political variables (including age, gender, socioeconomic status, culture, religion, ethnicity and globalisation) on public health and the provision of health services.
- Understand the influences on health status of non-health sectors and institutions, including the private sector.

In this module, the above is approached via two case studies: smoking and obesity. Smoking is used in the Day 1 series of lectures and exercises to illustrate seven core variables central to understanding societal aspects of public health. Then, over the next 4 weeks, the problem of obesity is considered through the prisms of these variables. Workshop lectures were recorded and put online for Distance students.

Online discussions

The online discussions were undertaken by both face –to- face and distance students and were designed to apply the seven sociological concepts that were considered on day 1 to the problem of obesity. Only the first of these was analysed in this study, namely age: what are the conclusions from current research about how obesity develops? Are there effects of age which are of critical importance in the epidemiology of obesity? Does this vary internationally? What is the natural history of the development of obesity? What are the main policy-relevant implications of a consideration of age for obesity control?

Program for online discussions:

One paper was set for pre-reading: Antipatis VJ, Gill TP. Obesity as a global problem. In Björntorp P (ed). International Textbook of Obesity. Wiley InterScience pp1-22.

For each week, the planned pattern was the same:

1. Phase 1: Brainstorm/ intro (day 1): A general brainstorm about the sociological focus for that week, as it applies to obesity, where students were to share with others in the group what they already know about this issue, and what they learned from the introductory reading for the week.
2. Phase 2: Research (submit by mid-week): Each member of the group would be allocated the task of investigating one aspect of the sociological variable arising from the brainstorm. S/he needed to locate recent research dealing with the allocated topic and bring it back to the group, briefly highlighting key findings and commenting on the implications for efforts to reduce obesity.
3. Phase 3: In-depth discussion (remainder of the week): Other group members are here encouraged to respond to the material presented by other students. This phase would ideally see a "good thoughtful interaction between all group members about each post made by group members".

Appendix 2.2 Case 2 Student evaluation responses

Case #2 Summary

		Frequency	Percent
Are you:			
	Male	1	14
	Female	6	86
Your age range (age next birthday)			
	Under 25	0	0
	25-34	4	57
	35-44	3	43
	45-54	0	0
Degree you are currently enrolled in:			
	MPH	6	86
	Other	1	14
Your professional/ study context			
	Studying full-time and employed	1	14
	Studying full-time and not working	2	29
	Studying part-time and working	3	43
	Studying part-time but not working	1	14
	not answered		
Have you done an online course before (either partly or fully online)?			
	Yes	4	57
	No	3	43
Were you educated in Australia?			
	All of my education took place in	5	71

	Australia		
	Most of my education took place in Australia	1	14
	None of my education took place in Australia	1	14
Which of the following do you listen to or use every day?			
	Mobile phone texting	5	71
	I-phone	1	14
	Skype	1	14
	Social networking program eg Facebook	1	14
How do you rate the **content** of this course?			
	Fair	3	43
	Good	4	57
How do you rate the **teaching/ presentation** in this course?			
	Fair	3	43
	Good	3	43
	Excellent	1	14
How do you rate the **relevance** of this course to your learning needs?			
	Fair	2	29
	Good	3	43
	Excellent	2	29
How would you rate the **course notes and resources** (print and online) in this course?			
	Poor	2	29
	Fair	2	29

	Good	2	29
	Excellent	1	14
How do you rate the **appropriateness of assessment** in this course?			
	Poor	1	14
	Fair	2	29
	Good	4	57
How do you rate the **WebCT** site provided for your course?			
	Poor	2	29
	Good	3	43
	Excellent	2	29
In general, how satisfied were you with this course?			
	Dissatisfied	3	43
	Satisfied	3	43
	Not answered	1	14
Did you feel that you learnt what you needed to learn from the online discussions?			
	Yes	2	29
	No	5	71
Did you feel comfortable in the role of online learner?			

	Most of the time	2	29
	Some of the time	4	57
	I never felt comfortable	1	14
Did you feel adequately prepared for online discussions?			
	Yes	3	43
	No	4	57
Did you feel other group members made appropriate postings to the discussion?			
	Most of the time	4	57
	Some of the time	3	43
Were you able to develop good relationships with other online group members (students)?			
	With some of them	3	43
	With none of them	4	57
Did you feel your moderator was responsive to your needs and interested in you as a person?			
	To some extent	4	57
	Not really	3	43
Do you feel the moderator guided the discussion in a way which helped you learn?			
	Yes	3	43
	No	4	57

Case 2 Group 2 Tutor: Austen- Free text answers

Those not agreeing to use of their answers or responding a propos a different unit of study were deleted. The answers have been provided here in full as they are instructive; selected answers only were able to be included in the main thesis text.

Response 1
- No to 8 above not for any instructional or technical issue. I think (and I'm new to eLearning) there are valuable face-to-face discussions and debates which can only occur in person - however, I'm overseas, so I cannot think of a better option.",
- "Would have liked to hear more about the subject in the context of anti-smoking campaigns since this is [lecturer's] main area. However, I understand the significance of Global obesity.
- Discussion threads can become overwhelming. I'd prefer limited postings by other students which are more thoughtful.
- Have to read the essential readings.
- Its easy to talk about non-technical aspects of public health if you're a public health worker or GP, but the discussions should be in the context of the readings and the module's learning objectives - not an open discussion. Those can be had anywhere. Its important for the threads to tie back to the literature, otherwise its wide open."
- when assigned a thread with another student- the interaction is better. There wasn't as much debate on topics as there was when I was a face to face student.

Response 2
- learnt alot about obesity and health promotion.Lot of controversy gathered from different people perception. Interesting!
- Uncomfortable is that everyone knows who i am and sometimes the heated discussion can be quite oppressive. Sometimes, really out of ideas (like, don't know what the tutor require from us) and distress over what to contribute further to the discussion and there is always a pressing need to contribute in order to gain marks. Very stressful.
- lots of materials to read before can contribute to online. Hopeful it is summarised in powerpoint for ease of reading. Need to be concise and straight to the point.
- Sure but please don't publish our photo in the webct. Don't like to have the feeling of possibility of confront. Thanks.

Response 3,
- Time involved in trying to keep up and follow the large volume of posts was unreasonable. There was little structure to the discussion and when there was discussion it was difficult to follow. Not enough feedback from tutors. Would be better to not assess online discussion, and have live tutorials where discussion can take place which is a much more efficient use of time which could be assessable. ",
- Expected to learn more from experiences of tutors/lecturers.
- Length of posts, lack of thread and difficult to follow, takes too long to read through them all.
- Readings and online lectures. Set questions. Smaller groups for discussions.
- Yes but not if online component is simply getting people to write discussion, should be written and verbal.
- Most postings had valid and relevant things to say but some were more mini-essays which is not the point. Would be good to hear more about people's personal experiences that are relevant, and particularly here from tutors with case examples of things being discussed.
- This is very difficult to do without any verbal interaction.

Response 4,
- initially, i was very confused and overwhelmed by what I was supposed to be posting in the online tutorial and felt as if i was not capable of making a useful contribution. There was not a lot of structure or specifics to what we were supposed to get out of it. People would post long pieces of writing which I was not sure were relevant even though they were often quite interesting. Different groups could have totally different learning experiences depending on what people posted. I found

the drawn out nature of it (over a week for each topic) and the fact that at certain times I was unable to log in due to other committments a bit of a problem as I felt I was "out of the link". I would spend hours trying to put together a posting of three paragraphs and seriously wonder if it was time well spent. I found it a difficult environment to ask or think about specific questions I might have and sort out concepts in my own mind. I found myself making my own summaries (but not sure if they were really what I was supposed to get out of it)

- i had few expectations about this course - I dont think i fully appreciated exactly what it was about
- its difficult to answer this question the topics and principles discussed are so broad that its impossible to be truly prepared. Perhaps that is the point with this subject. Perhaps a follow up set of written notes detailing exactly what we should have learnt for each online discussion week at the conclusion of that week would be useful
- a bit reluctant but understanding of the need for them the social aspect of uni is also changed by online discussions
- sometimes very long (too long) sometimes extremely enlightening and clear often i was unclear of where to go from what they had written - i was often not confident that I was making a valid response to other's comments sometimes there was repetition
- limited to when I could think of something intelligent to say to their posting, usually a postive interaction this is very different from face to face tutorials where what you say isnt up there in black and white for all to see - it does tend to make you think before you write -may even inhibit you expressing some of your views or be too afraid to say something becasue it may be completely wrong - this may inhibit learning"
- needed more interaction

Response 5,
- Valuable discussion. Sometimes a little difficult to contribute out of working hours - much of the discussion appeared to occur during the day. The tutor was effective in facilitating discussion.
- My expectations of the course were met. The objectives of the course were clearly outline as was tutorial expectations and assignment information.
- Most often the discussion started on a general review of the topic before moving into literature reviews and more in-depth discussion. This helped to get an idea of the topic.

Similar to a face-to-face discussion group dynamics and individual personalities were evident. This can sometimes make the discussion uncomfortable.,
- Review of the course notes and set readings. Additional literature search necessary to contribute new information to the discussion
- Group postings were most often relevant and informative. The length of postings fluctuated as did the frequency of postings from group members.
- The interaction was based on the topic and usually in response to the information in the postings, questions etc
- The moderator was effective in facilitating group discussion,Online discussions were a valuable component to the course. The do not replace face-to-face discussions and are more time consuming.

Response 6
- Having never done online discussion before I found the process confusing. Little direction was given in the first few weeks so people were entering their blogs all over the place and I found it diffiduclt to follow threads of argument. I felt that nothing was covered in any depth, that we all just discussed in order to earn marks rather than having the opportunity and comfort to ask questions on the course material. I am disappointed that we had to do the discussion online rather than have the much more efficacious option of proper tutorials in small face to face groups. I know some people have to do it online, but we need options not to.
- My expectations were not met in that we seemed to skim over a vast amount of material without being able to digest it and discuss it at any length.
- Poor organisation at the start left me fluondering. I did not know clearly what was expexted of me. It seemed they wanted volume of input rather than offering the possibility of consolidating course material and getting to ask questions. The way of posting to specific points to follow arguments was

unclear and people were allowed to put on enormous posts, despite repeated requests to keep them to a reasonable word length. I would like to see word limits emphasised.",

- Opportunity to first discuss the course materials and ask questions before jumping into examples and new topics. Clear guidelines on the word limits of posts and how to follow threads of arguments.
- I will try to avoid them where possible
- Many wer wonderful, interesting and useful.

Many were much too long. With little guidance on what to do, some people went for volume and this made keeping up with reading all postings impossible.
- Some people gave useful comments.However, I only really interacted with those I knew by name and face from the lectures and other courses. It feels really artificial to 'chat' with other people online (though maybe this just shows my age!)
- I think the moderator tried to guide discussion.,I wish we had the opportunity to do face to face tutorials instead

Response 7

- The concept is fine, but the online discussion of module 1 was chaotic. Maybe some of the sociological areas could have been discussed together or discussed on different topics to obesity? THe essential issue most seemed to have however was in being able to read through all the responses and try to make an intelligible reply. Thankfully this was less chaotic by the 3rd module. THe 3rd module was also better managed with the tutor giving a wrap up summarry and helping the group learn the concepts. I understnad the tutor was a university lecturer so they were better able to do this in any case but it did mean that we were able to learn about the subject a bit better.
- Alot of work was required to findarticles, read responses and wade through the material. Smaller groups would make it much easier
- it depends on how it is facilitated
- I am unsure what you are particularly asking us to comment on
- impossible online, we are too busy trying to write something before someone else does rather than take in their experience and application!

Appendix 2.3 Case 2 Thread chronologies

Part 1 Obesity

For reasons of space, this is a sample only.

	One thread with 5 name changes										
Date	Week 1 and welcome	Obesity in older Australians	Weight gain in middle age	Google images	Short summary	Brainstorm: age and obesity	Tech qn for {mod}	Obesity brainstorm	Tax on chocolate	Suggestion for next week	Guide to discns and outline
12 March											
	MOD 19:59 [1]										
	Liqin 22:46 [2]										
13 March											
	Student T 08:22 [3]					Student R 09:49 [44]	Student R 09:53 [45]				
	Adila 13:53 [4]						MOD 10:06 [46]				
	Brad 14:58 [5]										
	Jim 15:57 [8]	Student R 17:15 [11]									
14 March											
		Liqin 01:33 [12]									
	Student T 07:31 [9]	Student T 08:49 [13]									
	Student R 09:48 [10]	Student R 09:54 [14]									

	Sandra 09:57 [20]	Student N 13:18 [17]								
		Student N 14:06 [15]						Student U 16:15 [47]		
		MOD 18:17 [19]						Mod 18:24 [48]		
15 March										
	Brad 09:35 [21]									
	Brad 14:10 [22]	Jim 11:19 [18]								
	Adila 15:40 [27]		Student MMM 19:46 [28]							
			Student U 21:16 [29]	Student P 22:09 [35]						
16 March										
	Sandra 14:25 [23]				Liqin 13:11 [36]			Student U 10:55 [49]		
	Kate 15:24 [6]				Student K 14:10 [37]					

Appendix 2.4 Thread maps

For posts 1-68, 69-end and Posts 1-19 response trails

PUBH5016 Group 2 Thread map
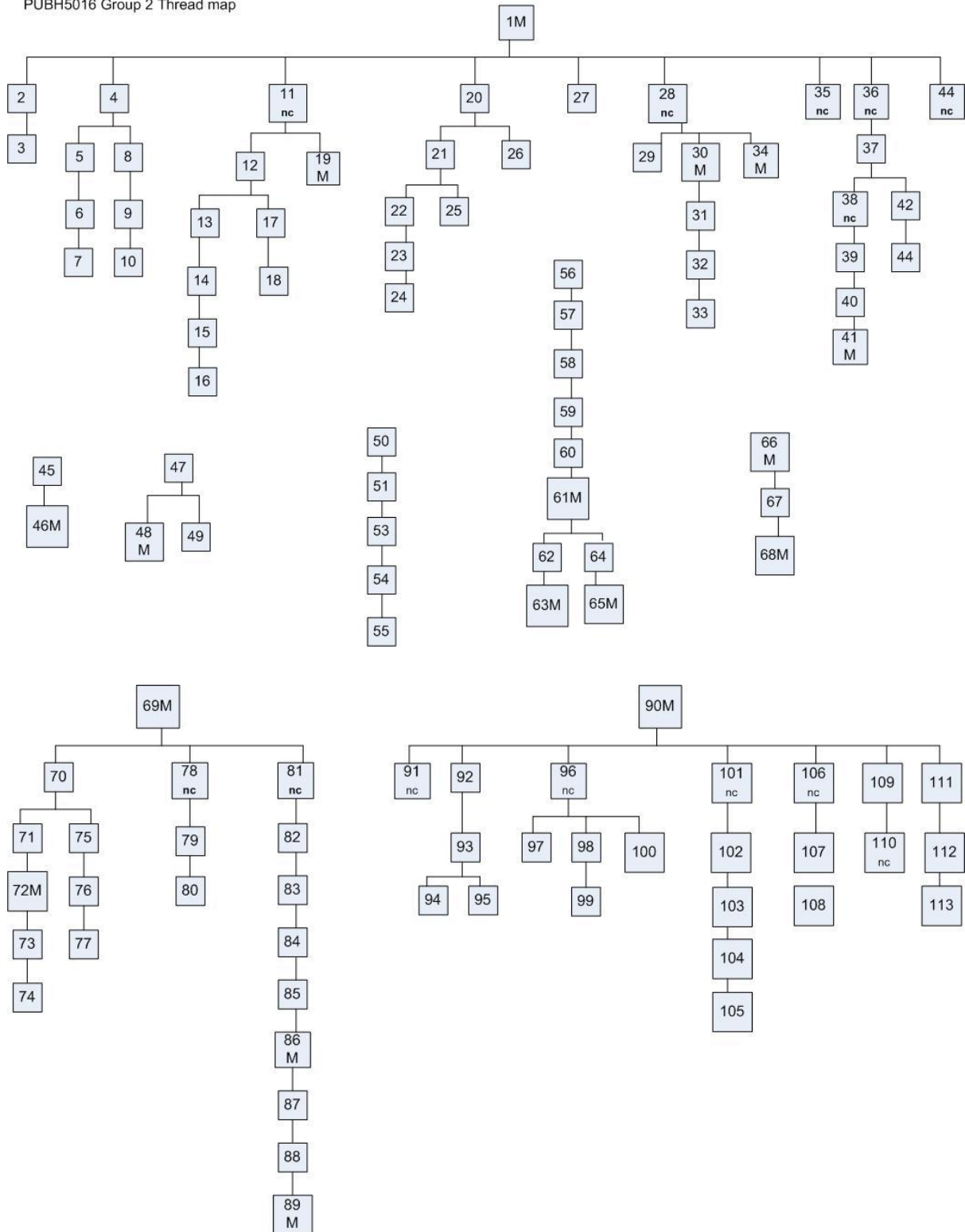
PUBH5016 Group 2 Thread map
Posts 1-19

Appendix 2.5 Case 2 Sample exchange structure analysis

This analysis of the moderator's first post shows an attempt to analyse the exchange into Bernstein's (2000) categories of regulative and instructional exchanges on the basis of requesting and providing a linguistic service. For reasons outlined in Chapter 4, this did not prove viable, although the exchange structure analysis did allow for the development of a curriculum macrogenre.

		Discussion name and number	
Exchange ID	Regulative Exchange		Instructional Exchange
1		Subject: Week 1 and welcome Topic: Module 1 Gp 2	
		Author: Dr Austen Date: 12 March 2009 19:59	
		Hi everyone-	GR
		I was lucky eough to meet a lot of you last week for the workshop.	K1
		However, if you are a distance student you may not have had the chance to meet any of us.	
		So I will start by saying hello.	K1
	A1:LS	I am a Research Fellow working at Drug Health Services at RPA Hospital-	
		I tutored this subject in 2005, 6 and 7	K1
		but took a break last year because of working on the Alcohol Treatment Guidelines project for the Dept of Health & Ageing.	K1
			K1
		This week our topic is age and how it relates to obesity.	K1
		I would like for you to think about this.	
	A2:LS	What, if any, age groups are more likely to be susceptibnle to weight gain?	
		It would be great if you could find at least one piece of research back to us as a group	

		And [if you could tell us] tell us what you have found.	K1
	A2: LS	The contributions don't always need to be just a summary of results of any study-	K1
	A2:LS	tell us what you think,	
	A2:LS	as well as what the researchers have found.	dK1
	A2:LS	And, informal comments and replies to other students are also welcome, as this makes things more interesting along the way.	K1
	A2:LS	I will check in every day	
		but don't always reply to everyone	
	K1/A1	(otherwise I would be here day and night);	K1
	A1:LS	however all your contributions will be read-	
	A1	I can't resist logging in to see what has happened overnight.	
	A1	Ok, let's start!	
		Sally	
	A2		
			K1

Appendix 2.6 Edited transcripts

ID	Text
1	1 Subject: Week 1 and welcome Topic: Module 1 Gp 2
	Author: Sally Austen Date: 12 March 2009 19:59
	Hi everyone-
	I was lucky eough to meet a lot of you last week for the workshop. However, if you are a distance student you may not have had the chance to meet any of us.
	So I will start by saying hello. I am a Research Fellow working at Drug Health Services at RPA Hospital- I tutored this subject in 2005, 6 and 7 but took a break last year because of working on the Alcohol Treatment Guidelines project for the Dept of Health & Ageing.
	This week our topic is age and how it relates to obesity. I would like for you to think about this. What, if any, age groups are more likely to be susceptibnle to weight gain?
	It would be great if you could find at least one piece of research back to us as a group and tell us what you have found. The contributions don't always need to be just a summary of results of any study- tell us what you think, as well as what the researchers have found.
	And, informal comments and replies to other students are also welcome, as this makes things more interesting along the way.
	I will check in every day but don't always reply to everyone (otherwise I would be here day and night); however all your contributions will be read- I can't resist logging in to see what has happened overnight.
	Ok, let's start!
	Sally
2	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: Liiqin Date: 12 March 2009 22:46
	In the study from Suder (2008) on Body fatness and its social and lifestyle determinants in young working males from Cracow, Poland. With the improvement of economic and living conditions, there were an increase of obesity people in Europe country and thus the study was initiated in Poland. The study showed that the average age of 27 years old Poland men were obese because they had low level of motor fitness (88.9%), age was ranked the second highest (85.1%), place of residence until age of 14 in city was the third highest (84.9%) and family obesity resemblance was (67.4%). The interesting part in this article was that obese men tend to take obesity as a norm when their family members are obese as well. With

ID	Text
	the busy working schedule, Poland men would no doubt have lesser/ no time at all in keeping fit. The other article is Obesity reviews from Gerwen et al (2008) on Primary care physicians' knowledge, attitudes, beliefs and practices regarding childhood obesity: a systematic review. Reason that i had chosen this article is because i find that the physicians holds a very important role when medical care is so easily accessible nowaday. This reviews comprised of 10 articles from the authors in USA(7), France(2) and Israel(1). The study on physicians showed that they were affected by their attitudes and beliefs when it came to performing the assessment, evaluation and treatment of children with obesity. Only 5-33% physicians reported themselves as competent. There were 19-22% of them reported to be familiar in management of childhood obesity while the other 10% felt that it was impractical although they understood that children do not outgrow obesity. It is very important to have involvement of parents and cooperation of patient (8-11 years old) during the weight management. Parents involvement do help to determine the success of their child losing weight. Parent can help with food control, not to satify child emotional needs by using food as reward. A study in 1998 showed that mothers had the belief that successful parenting was measured by having an obese infant. And majority of mothers do not perceive their children as overweight. At this era, this fact is still held true to many mothers (and i can't deny that i am one of them as well).
	Attachments: Gerwen et al on systematic review.pdf Suder A Body fatness & its social & lifestyle determinants in young working males from Cracow, Poland.pdf
3	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: STUDENT T Date: 13 March 2009 08:22
	Describes studies linking childhood obesity with parenting styles.
4	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: ADILA Date: 13 March 2009 13:53
	Firstly, thank you both for your fascinating insight in the ways in which childhood obesity is perceived by mothers. I would just like to add however, should we not also consider the other parameters that could contribute to obesity from birth to adulthood. Some of the other factors I believe should be taken into consideration are genetic influences, illnesses, environmental and social as well as psychological effects on obesity. Through knowledge and research I have come to understand that genetics has been found to play a highly influential role in obesity of individuals (this type of obesity being harder to treat than obesity caused by lifestyle behaviours). Furthermore, I have found that environmental and social factors such as lifestyle, culture, community and country of residence are also to be taken into consideration. Slightly overweight people for example in the Colombian culture are often viewed to be amongst the obese individuals. Meanwhile in North America the same person may be considered to be amongst one of the more normal range weight populations. This difference exists between South and North America because their cultures (specially eating habits) are so different in that they view obesity through different spectacles. In Bogota many McDonalds only survived for some years before they applied for bankruptcy. Now in Bogota there are only about 4 McDonald's Restaurants for a population of 7.8 mil while only in Sydney we have more than 50 MCD restaurants for a population of about 4.5 mil. I would like you guys to have a look at this article which also

ID	Text
	relates a lot to the matter and tell me what you think about it "*The association between weight history and physical performance in the Health, Aging and Body Composition study.*" *(Houston DK, Ding J, Nicklas BJ, Harris TB, Lee JS, Nevitt MC, Rubin SM, Tylavsky FA, Kritchevsky SB. 2007 Department of Internal Medicine, Wake Forest University School of Medicine, Winston-Salem, NC 27157-1207, USA. dhouston@wfubmc.edu).* Thanks for your time!!!
5	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: BRAD Date: 13 March 2009 14:38 I find it very interesting that I went and looked for some research prior to reading on others had put in this discussion. After finding an article "Maternal Feeding Practices and Childhood Obesity" (Baughcum, A et al, 1998) I see that others found interesting articles that link to mine. In the article I noted some very interesting pieces of information 1) Obese children are more likely to become obese adults 2) 70% of 6-9 year old children with obese parents will become obese 3) Once obesity develops it is hard to treat I also found it very interesting to read the opinions of the mothers in relation to their children, and how these incorrect beliefs were setting their children up for difficulty later in life. Some of these are 1) The mothers believed it was better to have a heavy infant because weight is a good indication of being healthy 2) Their children weren't being fed properly when only taking milk or formula, even though they were given this information by professionals in classes 3) Food is a good way to modify behavior 4) Crying means that the child must be hungry 5) Having a heavier child indicates that they are good mothers. 6) If the mother was overweight it was expected and acceptable for the child to be overweight. Most of the information in the article shows that the mother's actions were actually what they belied was best for the child as they belied their child was hungry, or that there child would sleep better if cereal was mixed with the milk. Some of the mothers reported starting to introduce solid foods to the babies with 3 days of birth, where a child should only drink milk until 4 mothers of age (Baughcum et al,1998). The article also backs up something that Student P mentioned in a previous post, Adiposity rebound (5-8), where children haven't learnt to regulate their food intake, and thus a predisposed to weight gain. The mothers in the article were over feeding their children by giving them more simply

ID	Text
	when they cried, even if the cry may be totally un-food related.
	The last thing I find interesting is that if neither parent is obese, being overweight under 3 years of age doesn't mean the child will be overweight as an adult (Baughcum, et al, 1998). This is actually my own personal experience. I was a complete chubba-bubba as a baby and now I struggle to increase my weight and would be considered underweight on a BMI scale.
	So I think that this shows that it isn't necessarily bad parenting that is leading to children being overweight but rather incorrect parenting. Mothers and Fathers should have more education in the correct feeding needs of their children, rather than just listening to the advice of their own parents/grandparents, which seems to be, and especially as reported in this article, where young mums get the most advice about caring for their children.
	If we can improve children's habits and intake around food right from the beginning then hopefully we can reduce obesity in adults and therefore reduce some many contacted health issues.
	Attachments: obese toddlers.mht
6	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: KATE Date: 16 March 2009 15:24
	I agree with the comment "improve children's habits and intake ... from the beginning then hopefully we can reduce obesity in adults ..."
	Attached is an article by Allman et al (2008). It looks at obesity in Aust adults in terms of age, period and birth cohorts as independent predictors of weight.
	While older people are increasing in weight, the rate at which younger people are increasing in weight is far greater.
	Why are younger people increasing in weight at a greater rate? Environmental factors seem to play a large factor yet its more than just environmental factors. There is also the genetic disposition discussion. Heavier mothers = heavier babies…heavier babies who then progress to obese adults. Yet even on their way to adulthood children are picking up all the metabolic disorders associated with obesity which persist into adulthood eg Type II Diabetes, fatty liver diseases, OSA, periodontal, stunting, etc.
	This is also why preventative health strategies such as the National Obesity taskforce, Healthy school canteen strategy, etc are focusing on children and adolescence. (Below is a link to the National Obesity taskforce preventative strategy 2009 which is part of a collective for the taskforce's 'Australia: the healthiest country by 2020' (released 10 October 2008).
	http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-obesity
	See also Lob-Corzilius T. Overweight and obesity in childhood--a special challenge for public health. International Journal of Hygiene & Environmental Health. 210(5):585-9, 2007 Oct.

ID	Text
	But I cant see change in the adult population happening overnight, even if our built environments were miraculously changed. Allman et all (2008) believes environmental changes wont lower the weight in adults but "it could confine the problem to fewer generations" in the future. In regards to adults I was trying to look up some articles I read in the past and on what Dietz (1997) and Antipatis & Gill (2001) mentioned on the changes in adolescence. Following adolescence the body develops its happy medium weight in teh young adult age that determines the body's ability to reduce weight in the central region in the future. By this understanding, overweight young adults who become obese will only ever be able to achieve their weight at about 18-20. At the DAA Obesity Epidemic summit 2004 Tim Gill, said that putting on as little as 5-10kg in this age group had "between 1.5-3 times greater risk" of developing a number of obesity related disease. Attachments: obesityage.pdf obesityprevention.pdf
7	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: STUDENT R Date: 17 March 2009 19:20 *Strategy for reducing obesity is the opposite of the strategy for reducing smoking rates.*
8	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: JIM Date: 13 March 2009 15:57 This is a tough series of responses to follow and should be a great course! Since many obvious factors, as evidenced by Antipatis' chapter 1 reading and many, many other sources, contribute to the various intensities of the obesity epidemic by country or region, I'll offer some thoughts with a focus on age and susceptibility in low SES districts in the Southern US. Student R's reference to OBrien's author manuscript regarding 'less sensitive mothers' and the correlation to obese or overweight pre-school aged children caught my attention, yet another I probably wouldn't have considered. I should note my professional point of reference is North American and West African. Canada and the U.S. have considerably different aggregate national prevalence rates, likely due to the diet, culture, and semi-urban / automobile lifestyle of the Southern U.S. which skews the US into a highly unfavourable position. I'd suggest U.S. children of low SES, both sexes, age range 11-15 seem most vulnerable, especially in the South. They currently have everything stacked against them: relative complacency (its not uncommon to observe a dialysis center only footsteps away from a McDonalds in some US cities), <u>poor</u> urban planning, fast food-low activity culture, poverty stress, and the stress of crime. In certain urban environments, violent crime is so profound, playing outside is forbidden by many parents (Gomez et al – 2004 "Violent crime and outdoor physical activity among inner-city youth"). This group is impressionable and also a victim of underfunded public school systems which generate outrageous subsidy revenues from soft drink vendors on premise, still outsource <u>low nutrition high-fat</u> school lunch food services to the lowest bidder, and still cut physical education programs, sometimes in their entirety, all the while the advent of an infinity of media alternatives to physical activity continues. From my recollection, calls for change began around 2004-2005; and, some school districts, the wealthy ones, began making fundamental changes, especially when the relationship between school diet and academic performance was unarguably demonstrated. But this occurred mostly in higher SES areas, while the poorer districts actually began not only serving lunch, but breakfast too. Add the onset of the recent economic

ID	Text
	downturn where McDonald's sales are actually increasing, a literal recipe for disaster ensues – recent marketing shifts at McDonalds are relentlessly re-targeting the teens of the late 1990's and early 2000-2001 in a young adult cost conscious fashion. This diet and cultural reality is hard to de-condition or re-condition. Adding the stresses of poverty only confounds a population with one of the worst diabetes increase forecasts in the world. (Mokdad AH et al, JAMA 2003) I think you can apply the same priciples of the Suder study in Poland that Liiqin referenced, once you establish cultural norms like resemblance, etc. If the norm keeps changing (worsening), improvements against it are only relative. I think some of these points can explain the severity of obesity and NIDDM in these US populations. It is a cautionary story to other countries who may also face the same perfect storm. Though some policy improvements are underway and awareness has been raised, its hard to un-do two decades of bad habits. Attached is the strategic plan my state's division of public health is undertaking. We were alarmed and generated some premptive political will to fund this effort. We're by no means in good shape. Attachments: 2005planDiabetesPlan.pdf
9	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: STUDENT T Date: 14 March 2009 07:31 *Need to change perceptions of obesity e.g. de-normalise; Jamie Oliver and food in schools; traffic light categorisation of food in school canteens.*
10	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: STUDENT R Date: 14 March 2009 09:48 *Supports traffic light concept in schools and more broadly e.g. in supermarkets.*
11	Subject: Obesity in older Australians Topic: Module 1 Gp 2 Author: STUDENT P Date: 13 March 2009 17:15 *Aging population and obesity.*
12	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2 Author: Liiqin Date: 14 March 2009 01:33 In regards to Student P posting about the article by Bender et al, i would like to add that the risk on excess dying related to obesity decreased with age can be justified to the fact that the researcher was unable to collect reliable information on the cause of death. Sometimes the decrease number of elderly participants over age 80 years old can also resulted reduced excess death. These are the limitations. Other than Germany, it would be nice to compare with other researche to see their differences in regards to the investigation of excess death in very obese people which unfortunately is limited. Continue with the discussion about Australian obesity trends. In year 2005, the Australian Bureau Statistics (ABS) media reported 54% of Australian adults were overweight or obese. Attachment below for reference. The obesity was clearly seen in men increased from 9% (Year 1990) to

ID	Text
	19% (Year 2005) while female increased from 10% (Year 1990) to 17% (Year 2005). Therefore the urgency to control the rise of obesity in adults and children are vital as this trend would cause a burden on the health of the affected people as well as the burden on the economic of the country and workforce.
	Attachments: ABS on Overweight and Obesity in Adults, Australia, 2004-05.mht
13	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2
	Author: STUDENT T Date: 14 March 2009 08:49
	Suggestions in national Strategy + financial incentives to eat healthy food – unhealthy food generally cheaper.
14	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2
	Author: STUDENT R Date: 14 March 2009 09:54
	Reduced death rates amongst lighter older people.
15	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2
	Author: STUDENT N Date: 14 March 2009 14:06
	Social factors in weight loss amongst elderly
16	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2
	Author: ISOBEL Date: 16 March 2009 21:32
	Also in reply to Student R's query on why older people lose weight, another smaller factor may be that elderly people with certain types of Dementia often suffer from a reduced appetite, others may find eating more difficult with loss of dental health, there is also the issue of cost of food on a pension. . I know from experience that getting residents to eat sufficiently to keep a constant weight and health status is a continual battle.
	However, obesity is also a rising problem within the residential aged care (nursing home and hostel) environment. As many of you have already pointed out obesity rates are rising at a frightening rate across the world for many different reasons. Couple this with the ageing of the population in countries such as Australia and the result is an expensive increase in the already struggling provision of aged care. In a US study Lapane describes how the % of newly admitted residents of nursing homes in some US states has risen from 15% in 1992 to 25% in 2002 (see attached). Obese people require expensive heavy duty wheelchairs, lifters, and crucially extra staff time, the most expensive resource, to meet their needs. Given the similar characteristics of the obesity increases between Australia and the US I can only assume the same problematic increases of obesity in nursing homes residents is on its way here.
	Attachments: Obesity in Nursing Homes An Escalating Problem.pdf
17	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2

ID	Text
	Author: STUDENT N Date: 14 March 2009 13:18
	Quotes ABS statistics re obesity and older Australians. Increasing obesity impacts equipment used in health case facilities.
18	Subject: Re:Obesity in older Australians Topic: Module 1 Gp 2
	Author: JIM Date: 15 March 2009 11:19
	The comment about requiring specialised equipment for bariatric patients reminded me how serious the situation is for ambulatory providers / EMS. In the US, many middle aged overweight or obese patients do not have health coverage; therefore, their primary mode of transport is via ambulance which is both costly and taxing on an already stressed system. The issue has become so severe that it has become a standing agenda item at our EMS and Trauma Advisory meetings. 2 person abulance crews are now requiring additional crews just to load patients. EMS workers are reporting the highest rates of on the job injuries (Studnek et al 2008 - On the job illness and injury resulting in lost work time among a national cohort of emergency medical services professionals; American Journal of Industrial Medicine) This brings up several issues (insurance in the US alone) but the relationship to age is that a system or a service (EMS) which was developed for trauma cases and MCI is now becoming a shuttle service for persons in a age ranges thwho should otherwise be healthy. The ambulatory industry itself, where privatised, has actually favourably responded because they are paid for services at a standard rate, regardless of the reason for transfer.
	EMS and its workers are going to be negatively impacted as the current rates of obesity of the middle aged get older and potentially require medical care. I liked the traffic light food concept. Focus on getting middle aged adults to lose weight should not be shadowed by the need to have children exercise. A geriatric bariatric era has a wide range of challenges as the present population in the ABS health survey and others get older.
19 MOD	Author: Sally Austen Date: 14 March 2009 18:17
	Wow, everyone has really started off well- remember this is a brainstorm to discuss/discover which age stages are most likely to be a risk for gaining weight. There is no need to cite specific articles unitl the next discussion. However, having said that, I am most impressed with the way that some of you have done so.
	I will keep on reading through today's postings and will check in again tomorrow.
	Well done!

20	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: SANDRA Date: 14 March 2009 09:57
	Hi all,
	Reading through all the previous posts, this is certainly an interesting discussion. Driving to work yesterday morning, I heard the minister for health on the radio commenting on the 'obesity epidemic', confirming Australia's position as one of the 'heaviest' nations in the world. After reading through the literature, this certainly seems the case.
	There is quite a comprehensive review of current literature in a clinical practices document on the DOH website entitled 'The prevalence and tracking of overweight and obesity in children and adolescents'. It reviews relevant literature from both Australia and overseas, making evidence based statements and recommendations for research and clinical practice. The authors reported that a 'very significant' percentage of children and adolescents in Australia are overweight or obese, with the prevalence of the condition increasing substantially over the last 10 years, in a trend similar to most other developed and developing countries. Their recommendation was that 'The prevalence of overweight and obesity in children and adults in Australia is high enough to warrant both intervention and preventative action'. In a research recommendation, they reported that 'height and weight should be measured recurrently in a nationally represented sample of children and adolescents'.
	An article by Batch and Baur (2005) also discussed the problem of obesity in children in Australia in greater detail, covering the aetiology of obesity, potential complications as well as the conventional management options. Interestingly, they discussed prevention and management of obesity, reporting that a range of strategies should be employed to prevent the development/increase in childhood obesity by making changes in both the microenvironemnt (i.e., housing, neighbourhoods etc) and the macroenvironment (i.e., food marketing, transport systems and urban planning).
	Although the rising rates of obesity across childhood and adulthood is a major health problem, an article by deOuis and Blossher (2000) raised some interesting points for the management of obesity globally. The authors took surveys from 160 countries to determine the prevalence and trends of overweight amongst preschool children in developing countries. The found that the global prevalence of overweight was 3.3%, with countries in the Middle East, Latin America and North Africa having the highest prevalence of overweight children. However, rates of wasting were generally higher than rates of overweight, with countries such as Africa and Asia having wasting rates 2.5-3.5 times higher than overweight rates. The authors concluded that although attention should be paid to monitoring levels and trends in overweight children, this should not be done at the expense of reducing international commitment to targetting poverty and malnutrition. Whilst undernutrition does not appear to be a problem in Australia, it does raise interesting discussion for global efforts targeting obesity.
	I will continue to review the literature. Look forward to reading everyone's posts.
	Sandra
	References:
	1. Clinical Practice Guidelines, 'The prevalence and tracking of overweight and obesity in children and adolescents'.

	http://www.health.gov.au/internet/main/Publishing.nsf/Content/obesityguidelines-guidelines-children.htm/$FILE/children_part1.pdf *2. Batch, J.A. & Baur, L.A. (2005). Management and prevention of obesity and its complications in children and adolescents'. MJA, 182(3):130-5.* *3. deOuis, M. & Biossher, M. (2000). Prevalence and trends of overweight among preschool children in developing countries. American Journal of Clinical Nutrition, 72(4):1032-9.*
21	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: BRAD Date: 15 March 2009 09:35 I think it is very interesting that a number of people of named McDonalds in their posts and even though it is a LARGE chain, ok extremely large chain, there are many suppliers of food that is not even close to being healthy why is it McDonalds the one that the media (and most people) attack first? You don't often hear about KFC or Hungry Jacks (or burger king in the states) being attacked with such vitriol. Even though I am not totally pro Maccas I just think that we have to expend our energy on promoting healthy eating habits and less about expecting a corporation to do that for us. Student R also mentions in a post the limiting of marketing to food and drink to children, and you do see this sort of thought in many different places. In fact it is not just food and beverages that some people want to limit the marketing of. I believe there is talking of limiting all "nag marketing" campaigns. A nag marketing campaign is one where children nag their parents to purchase the item. But my thoughts are, why should we expect a business to curtail it's activities? Is it forcing parents to enter their store, order the food and pay for it? No it isn't all of those choices have to be made by an adult. Kids nag, it is what children do. Shouldn't the parent have rules and stick to them? If an adult doesn't understand that fast food should only be in the diet sometimes as a treat or special occasion we have already lost the battle. Now lots of young people are not supervised by adults 100% of the time. They can walk into fast food outlets after school of their own free will. But they do need money to purchase from any chain. Unless that person has a part time job, and that can only happen in most cases from a certain age, parents had to given the child money. Is it reasonable for a parent to limit the child's pocket money and to monitor that child is spending it? As Adila mentions in her post, many McDonalds in Bogotá only survived for a short period of time before having to close due to that cultures eating habits and views. I actually think, and I can't back this, as it is simply word of mouth, the same happened to McDonald's in Newtown Sydney. People don't purchase the food, as they choose not to. Rather than spend time and money and countless hours arguing about legislating the marketing of food I think it would be better to spend it on direct education of people about good nutrition and eating habits. Corporations are willing to change to stay viable. McDonalds does offer healthier menu items now due to pressure for them; it is people that choose to order the Big Mac rather than a salad.
22	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: BRAD Date: 15 March 2009 14:10 I just saw this article on the SMH online. it is about the birth weight of babies is increasing, which isn't exactly a good thing.

	An interesting items to note is that it states that because of less women smoking during pregnacy (which leads to low birth weights) some babies are being born heavier.
	When I get more of a chance it will be interesting to read the full report.
	Attachments: SMH - heavier birth weights .webarchive
23	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: SANDRA Date: 16 March 2009 14:25
	Hi all, I have just read the article that Brad was referring to in the SMH this morning. The article is titled 'Health risks increase as newborns get heavier'. The article raises some interesting questions and suggests that the mean birthweight has increased by 23 grams for boys and 25 grams for girls in NSW. The report that this is contributing to a generation at increased risk of chronic conditions such as asthma and diabetes and a range of infant, paediatric and adult cancers. Increasing birth weights have also been reported in Canada and Sweden as well. The authors suggest that increasing obesity rates in young women is 'pushing up' birthweights. Like Brad mentioned, they report that an increase in maternal age, gestational diabetes and reduced maternal smoking rates may also be contributing factors. This article ties in quite nicely with a similar article in the SMH a couple of months ago ('Obesity, age link to stillbirths'), which reported that increasing obesity in mothers (due to similar reasons as above) is contributing to an 'epidemic of stillbirths'. The article discusses a systematic review of more than 100 studies in stillbirth across Australia and New Zealand, which reports that loosing excessive weight in combination with reducing maternal age and tobacco use may prevent approx 40% of Australian stillbirths each year. I am still looking for some literature on these topics, but at first glance these articles raise some interesting questions on the importance of targeting this particular age group in primary and secondary prevention programs...... I would think there would be significant benefits in targeting this age group, as young women/men may be more motivated to improve their own lives as well as their children's. Food for thought anyway.....
24	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: KATE Date: 16 March 2009 15:30
	Another article in this sunday's paper looked at kids favorite programs and the percentage of junk food adds in these time period. Yeah, we know they do it and we know there is 'some' restraining on the advertisers nowdays. But what interested me in this was that the favorite TV shows were for the majority promoting healthy lifestyles! "So you think you can dance", "the Biggest loser", "Bondi rescue" etc. Promotion of healthy lifestyles with 80% advertisement on junkfood, no irony in our society!
25	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: STUDENT R Date: 17 March 2009 19:30
	Disagrees with Brad re focussing on promoting health eating habits as expensive and have only long-term results; there are huge budgets for promoting unhealthy food; parents can't always control what children eat.

26	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: STUDENT R Date: 17 March 2009 19:15
	Under-nutrition and 'nutrition transition' as countries develop.
27	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2
	Author: ADILA Date: 15 March 2009 15:40
	Hey I was watching the news and there was this segment about the Spanish government thinking of raising up the taxes on chocolate with the purpose of decreasing the prevalence of obesity in Spain. Doing some other research I found that there is a huge controversy all around the world about this topic.
	Some doctors believe that there is an explosion of obesity and the related medical conditions, like type two diabetes all around the globe. They believe chocolate is a major player in this and a tax on products containing chocolate could make a real difference.
	People generally underestimate the health dangers of chocolate, family doctor David Walker told the British Medical Association conference, leading a debate on the issue. "I believe that chocolate is a major player in obesity and obesity-related conditions. What I'm trying to get across is that chocolate is sneaking under the radar of unhealthy foods," he said.
	Others believe that the government taxing chocolate would not solve the obesity crisis but it might slow the rate of increase of the obesity graph.
	Critics say the idea of taxing chocolate would simply not work. "Introducing regressive taxes on the foods that consumers love would result only in lighter wallets, not smaller waists," Julian Hunt of the Food and Drink Federation told the BBC.
	While good for grabbing headlines, there is no evidence to suggest that such 'fat taxes' would actually work in reality. The BMA debated a similar motion in 2003, and it was rejected because doctors thought it would not reduce obesity, would hit poor people most and would be difficult to administer.
	Professor Roger Corder of The London School of Medicine said that we are concentrating in the wrong problem. "Targetting chocolate is misguided. If we targeted sugar, you'd capture all unhealthy foods," he told the BBC.
	However, if children are having chocolate and crisps in their lunchbox every day instead of more nutritious alternatives, then this would cause concern in terms of the number of 'empty calories' being consumed. Maybe if increasing taxes to chocolate is not a very good idea, decreasing the tax of healthy foods could be (lower prices in fruits and veges).
	I also found in my research that solutions to obesity can be reducing the prices in healthy foods being a way for families to produce healthy meals on a budget; increased access to subsidized sporting facilities for both children and their parents; a ban on advertising unhealthy foods, including inappropriate sponsorship programs targeted at children, and accurate food labeling and clear information to enable the general public to make informed choices about their diet.

	I guess that I cannot really relate this research to any target age group since some adults eat more chocolate than children do.
28	Subject: Weight gain in middle age Topic: Module 1 Gp 2
	Author: STUDENT MMMM Date: 15 March 2009 19:46
	Finds discussion interesting; focuses on weight gain in middle age, esp women – this is preventable.
29	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: STUDENT U Date: 15 March 2009 21:16
	Children are biggest age group most at risk – strong forces against health eating and exercise. Sociocultural factors – Macdonalds did not last long in Newtown.
30 MOD	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: Dr Austen Date: 16 March 2009 16:28
	I am just wondering if anoyne has found any particular literature about the risk periods for men?
	A couple of times that may be 'risky' would be stopping playing sport, perhaps, or even retirement with less time spent at work. Though this might also have the opposite effect (less time spent behind a desk and more playing tennis?).
	I have not heard from a couple of people yet and I can't tell if they have dropped out or not. I also have 2 new people that weren't on my list (Student O and Student K), so welcome to the group. <u>Just as well</u> I didn't assign age groups to everyone.
	However, the discussion is going well and I am happy to see some very good and thoughful presentations.
	regards
	Sally
31	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: STUDENT O Date: 16 March 2009 23:14
	45-64 year age group most at risk – many risk factors.
32	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: STUDENT S Date: 17 March 2009 12:45
	As GP, comments on low activity levels in middle aged.
33	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: JIM Date: 17 March 2009 14:32

	Since reduced physical activity/sedentary lifestyle and SES dietary considerations are the documented, researched, and most guilty culprits; I think its worth investigating the risks and potential causes from other sources. Use of prescriptive medications (which is rising in all age groups in developed nations) which can adversely impact weight gain. Also, there is emerging research regarding the effect of pollution causing endocrine disruptions and how these altered hormones impacts weight.
	A promising piece of PH legislation which failed in the US Congress in 2008 was an attempt to amend the US Public Health Act aimed to research this in a comprehenvive environmental health study on hormone disruption. It will be re-introduced this year with a better chance of passing. It has significant funding tied to it, so hopefully, if completed, will yield data that can be used to correct or mandate better worker protections - even from consumption of hormone treated foods; and, more importantly, rethink other contributors to obesity.
	On an entirely different observation, at least in the US, the reality that the current generation has forgotten how to prepare meals in a sensible fashion is beginning to be accepted by the mainstream. Consumerisn and lifestyle, which starts at home, impacts others. Its not realistic to think if a father adopts poor eating habits (both type of food and proportions) that the children go unaffected, as Brad and a few other mentioned earlier.
34 MOD	Subject: Re:Weight gain in middle age Topic: Module 1 Gp 2
	Author: Sally Austen Date: 17 March 2009 16:27
	Interesting contribution- I find it incomprehensible that it somehow is taken for granted that menopause means weight gain. I have not seen this happen in anyone I know, including my mother- rather the reverse. I will read your accompanying article with interest.
	Sally
35	Subject: Body weight and age, Sociology and Perceptions via Google Images Topic: Module 1 Gp 2
	Author: STUDENT O Date: 15 March 2009 22:09
	Google image search re weight and age groups – how perceived differently.

36	Subject: Short summary Topic: Module 1 Gp 2
	Author: Liiqin Date: 16 March 2009 13:11
	Focusing on the question by Sally for us to brainstorm to discuss/discover which age stages are most likely to be a risk for gaining weight. I would like to help summarizing the discussion and articles gathered from our online discussion classmates. Most researches' finding would support that the younger age group like the children would experience difficulty in controlling their own consumption of food. This is because they may be too young to understand the nutritious value of food and beverages or they may be voluntary chose not to avoid unhealthy food. This may be caused by peer pressure of friends, family styles of cooking and living (lack motivation & time to exercise) and freedom of choice whereby access to excessive cheap unhealthy food is so much easier than healthy food (eg. in school canteens or food vendor in the neighbourhood). Family with lack of knowledge in preparing healthy diet can be seen in a busy community whereby working parents have to juggle between work and home, not to add on the lack of time and energy to prepare healthy food. Insufficient exercising is a problem of our modern society where technology had actually stopped us from stepping out of the house. Example like internet surfing and watching tv most of the times. Sometime the obesity run in the family or resemblance of obesity led one to believe that is the norms. This topic I find is very controversial. I totally agree with Student S, but for my opinion which I would like to say is: start the good habits from young because it is very difficult to correct a habitual unhealthy dietary pattern and sedentary lifestyles once it had become a norm. Having said that, the adults in the family must set good examples and form a healthy culture for the younger ones to follow. For we know that obesity does bring lots of problem like poor health issues, impact on workforce if there are rise in medical leaves and cause negative effect on the country's economic, personal low self-esteem with resultant from poor self-image.
37	Subject: Re:Short summary Topic: Module 1 Gp 2
	Author: STUDENT K Date: 16 March 2009 14:10
	Overweight/obesity increasing in all age groups but believes children most vulnerable, particularly because of increases in those of child-bearing age.
38	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: BRAD Date: 16 March 2009 20:53
	Adila's post about raising the taxes on chocolate got me thinking if this would work in Australia. I decided to see if there was any evidence that raising taxes on other unhealthy habits, in this case smoking helped decrease in the uptake and continuation of this habit. In a very simple search I found this website http://www.tobaccoinaustralia.org.au/chapter-7-cessation/7-9-policy-measures-associated-with-quitting.
	It states that raising the taxes by 10% on smoking in rich countries, which I think Australia is, is predicted to reduce smoking by 0.7% and 3%. Would this be the same on chocolate? A chocolate bar is about $1.80. Would the increase to $1.98 or rounded up to $2 make much of a difference to people's pockets? Over time maybe, but at the point of purchase? I very much doubt it would have much impact.
	Also do we need to consider where the extra money raised will be spent? If it was going to go directly into health education obviously this would be a good thing but will this be how the money will be spent.

	Isn't it better to educate people how to have a balanced diet and enjoy "treat" foods, such as chocolate, in a healthy proportion?
	It would be interesting to know how much the GST affected peoples buying habits of healthy foods. Since the GST is 10 %, did it's introduction mean people changed their buying habits. I have been unable to find this in a quick search and would be very interested to see if that has ever been analysed.
39	Author: STUDENT T Date: 17 March 2009 10:20
	In utero and infancy factors in later overweight+ cost factors in health food.
40	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: STUDENT N Date: 17 March 2009 16:06
	Questions whether tax on chocolates would be as effective as tax on cigarettes in influencing relevant behaviour.
41 MOD	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: Sally Austen Date: 17 March 2009 16:12
	It almost does sound too good to be true, but I don't like the idea of a tax on chocolate.
	Did anyone see Jennie Brand-Miller being interviewed yesterday on 'Talking Heads? She mentioned the role of leading by example and how parents influenced their children by what they do (using the example of being involved in preparation of healthy food in this case), not necessarily by what they say. She also has a little piece of chocolate every day and I don't see her becoming fat any time soon.
42	Subject: Re:Short summary Topic: Module 1 Gp 2
	Author: SANDRA Date: 17 March 2009 22:31
	Hi all,
	Following on from Student K's comments and many other posts so far this week on the increasing rates of obesity in children, I had a look on the 'Nutrition and Physical Activity' section on the Australian Government Health Website'. It is reported that 'the early years are a critical period for establishing health eating and physical activity behaviours in children', discussing the importance of nutritious food and regular physical activity.
	The Australian Governments commitment to provide $4 million over 2008-12 is reported to a part of the election response to this health care problem in the 'Plan for Early Childhood and Plan for Tackling Obesity'. The report also discusses the 'Healthy eating and physical activity guidelines for early childhood settings'. These guidelines are available on the website and have a comprehensive evidence base.
	It will be interesting to see the publicity and reactions from key groups when the guidelines are introduced on the 1st July 2009, as well as the programs implementation over the next four years.

	Further details on the plan and program are available at this website:
	http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-hlthwt-obesity.htm
43	Subject: Re:Short summary Topic: Module 1 Gp 2
	Author: STUDENT K Date: 18 March 2009 10:31
	Effect of obesogenic families on children's weight.
44	Subject: Brainstorm - age and obesity Topic: Module 1 Gp 2
	Author: STUDENT R Date: 13 March 2009 09:49
	6 risk periods which differ in significance depending on where one lives.
45	Subject: Technical question for Sally Topic: Module 1 Gp 2
	Author: STUDENT R Date: 13 March 2009 09:53
	Question re task organisation
46 MOD	Subject: Re:Technical question for Sally Topic: Module 1 Gp 2
	Author: Sally Austen Date: 13 March 2009 10:06
	Hi Student R
	Simon said the other day that we may choose to allocate topics, or just let people choose for themselves. In the past I have allocated topics to get people started, but I would like to try the other method as you all seem so keen!
	So you may select a period of life to study for the 'risk factor' of obesity. We may also get some opposing points of view.
	best wishes
	Sally
47	Subject: Obesity Brainstorm Topic: Module 1 Gp 2
	Author: STUDENT U Date: 14 March 2009 16:15
	Age-related and behavioural factors + policy implications
48 MOD	Subject: Re:Obesity Brainstorm Topic: Module 1 Gp 2
	Author: Sally Austen Date: 14 March 2009 18:24
	Thanks for your thoughtful comment.
	Schools didn't even HAVE canteens when I went to school...I shall refrain from saying when this was, but it was in New Zealand. They still have lower

	rates of obesity than other of the Western Nations,
49	Subject: Re:Obesity Brainstorm Topic: Module 1 Gp 2
	Author: STUDENT U Date: 16 March 2009 10:55
	More activity and more sleep mean lower weight.
50	Subject: tax on chocolate Topic: Module 1 Gp 2
	Author: STUDENT M Date: 17 March 2009 08:40
	GFC and food: fast food outlets doing well, people switch to less healthy but more filling food.
51	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: STUDENT P Date: 17 March 2009 16:09
	Consumerism means healthy food ignored.
52	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: STUDENT N Date: 17 March 2009 16:32
	Jamie Oliver's Ministry of Food
53	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: STUDENT P Date: 17 March 2009 21:29
	Consumption of fresh produce is increasing.
54	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: JIM Date: 18 March 2009 06:33
	One of North America's heroes of the 'slow food' movement, Alice Waters, founder of ChezPanisse in San Francisco, CA-US is finally gaining significant attention of the popular mainstream (more than she already has). San Francisco has a vegetable garden at their city hall. See: http://www.cbsnews.com/stories/2009/03/13/60minutes/main4863738.shtml
	Waters is on a campaign (she calls it a crusade) to replace one of the US White House (presidential quarters) in Washington DC with a home garden to set an example. (the white house had a garden up until 1950).
	As for taxing chocolate or unhealthy foods, its harder to isolate food products and get laws passed for such endevours as it is with tobacco.
55	Subject: Re:tax on chocolate Topic: Module 1 Gp 2
	Author: SANDRA Date: 19 March 2009 19:07

	Hi all,
	I agree with Jim and the previous posts, it is much harder to isolate specific foods and place a tax on them. Whilst there is much evidence that unhealthy or fast foods are certainly contributing to increasing levels of obesity, unlike tobacco, they do not do immediate harm..... and they do not harm others like passive smoking does. I feel that prevention and education programs may be a far more effective means to tackle this public health problem.
	I also agree that placing a tax on chocolate would be problematic (and it is one of hundred's of 'unhealthy foods'). After all, a little bit of chocolate in moderation is supposed to be good for you.... packed with antioxidants. I leads me to wonder, if the tax on chocolate was increased, would chocolate still be the item of choice at Easter (easter eggs, bunny etc)?
	Cheers,
	Sandra
56	Subject: Suggestion for next week Topic: Module 1 Gp 2
	Author: STUDENT R Date: 17 March 2009 19:50
	Proposal to get activity back on track – to follow the study guide – so that it doesn't become too onerous.
57	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: STUDENT S Date: 17 March 2009 20:29
	Support for above
58	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: Liiqin Date: 17 March 2009 22:10
	Hi Student P and Student Q,
	The same goes for me. Glad to support your idea as it help us to ease our visualization. Good kaizen! (",) [*philosophy of ongoing improvement*]
59	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: JIM Date: 18 March 2009 06:38
	110% agree here as well! Thanks for laying that strategy out for us.
	I laughed out loud when you mentioned putting children up for adoption. I was overwhelmed when I logged in last week with all the references and postings. This sounds like a good idea for next topic and moving forward.
60	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: BRAD Date: 18 March 2009 06:59

	it sounds like a great idea, I will be away from friday afternoon till monday afternoon volunteering at camp goodtime so I will be unable to be part of the brainstorm but will be happy to go with the group decides.
	Sorry that I can't contribute till I return.
61	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: Sally Austen Date: 18 March 2009 08:29
	Good idea- happily most of you posted to the one thread this week, but it does get confusing.
	I will be starting the 2 new threads tomorrow for week 2. I have to do this tonight or tomorrow because Mondays and Thursdays are my free days- i.e. I am not at work and I have time to _dedicate_ to you.
	Next week's topic is gender and social class.
	best wishes
	Sally
62	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: STUDENT K Date: 18 March 2009 09:08
	Agrees with Student R re task
63	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: Sally Austen Date: 18 March 2009 10:48
	Dear ALL
	I will be assigning this topic tomorrow and will be starting 2 threads to follow; one of gender and one of social class. In the past we have had students starting a new thread every time they post and then it does get very confusing because we don't know who or what they are replying to. Some comments also get overlooked. This week we have had many attachments posted, which is really unnecessary; however I take this as an indication of how keen you all are!.
	Please wait till tomorrow for more instructions.
	thanks
	Sally
64	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: STUDENT U Date: 19 March 2009 17:10

	Query re contributing.[admin]
65	Subject: Re:Suggestion for next week Topic: Module 1 Gp 2
	Author: Sally Austen Date: 20 March 2009 09:13
	This is fine- as long as I know if anyone is to be away, and when, then there will be no penalties for them.
	In the past I have had students travelling overseas, where web access can be difficult sometimes. So do not worry, just let me know ahead of time if possible.
	thanks
	Sally
66	Subject: Guide to discussions, and outline Topic: Module 1 Gp 2
	Author: Sally Austen Date: 19 March 2009 11:33
	Hi everyone
	Instructions for online postings.
	Week 1 topic: Age (13-19 March)
	Week 2 topic: Gender and Social class (20-26 March)
	Week 3 topic: Culture, ethnicity, religion (27 March-2 April)
	Week 4 topic: Globalisation (3 – 10 April)
	We are about to begin Week 2 (or it will be, tomorrow). Basically the weeks run like this.
	Phase 1: Brainstorm/ intro – this takes place over a couple of days, usually Friday- Saturday.
	Phase 2: Research (submit by Tuesday night at latest)
	Each member of the group needs to locate recent research on the given topic and present the important points. You may wish to attach your article, but there is no need for everyone to hope to read them all (or any). Your task is to summarise the results for everyone else.
	Phase 3: In-depth discussion (Wednesday- Friday). Group members are encouraged to respond to others' comments. You may begin earlier if you wish (on Tuesday), and you may also wish to continue longer if the topic gets really interesting.
	Note: please keep your postings to a <u>maximum </u>of 100 words.
	Later today I will create 2 threads, as I said yesterday, with some points for consideration at the beginning of each one.
	I hope this puts us all on track. Week 1 seemed to begin by plunging right into the articles with no time for brainstorming, so I hope this works out

	better for all of us. I am happy to know that you are all so keen and look forward to this continuing.
	best wishes
	Sally
67	Subject: Re:Guide to discussions, and outline Topic: Module 1 Gp 2
	Author: Liiqin Date: 19 March 2009 16:46
	Hi Sally,
	I was just wondering about the 2 threads you mentioned you will be creating, will you be creating 2 threads for module 2 in discussion column of "module 2"? Because i saw the 2 threads you created for us was in this module 1. Thanks for clarifying.
68	Subject: Re:Guide to discussions, and outline Topic: Module 1 Gp 2
	Author: Sally Austen Date: 20 March 2009 09:14
	Hi Liiqin
	We are still in Module 1.
	A/Prof C's is Module 2, and Prof N's is Module 3.
	best wishes
	Sally

Appendix 2.7 Taxonomy of topics discussed: Obesity
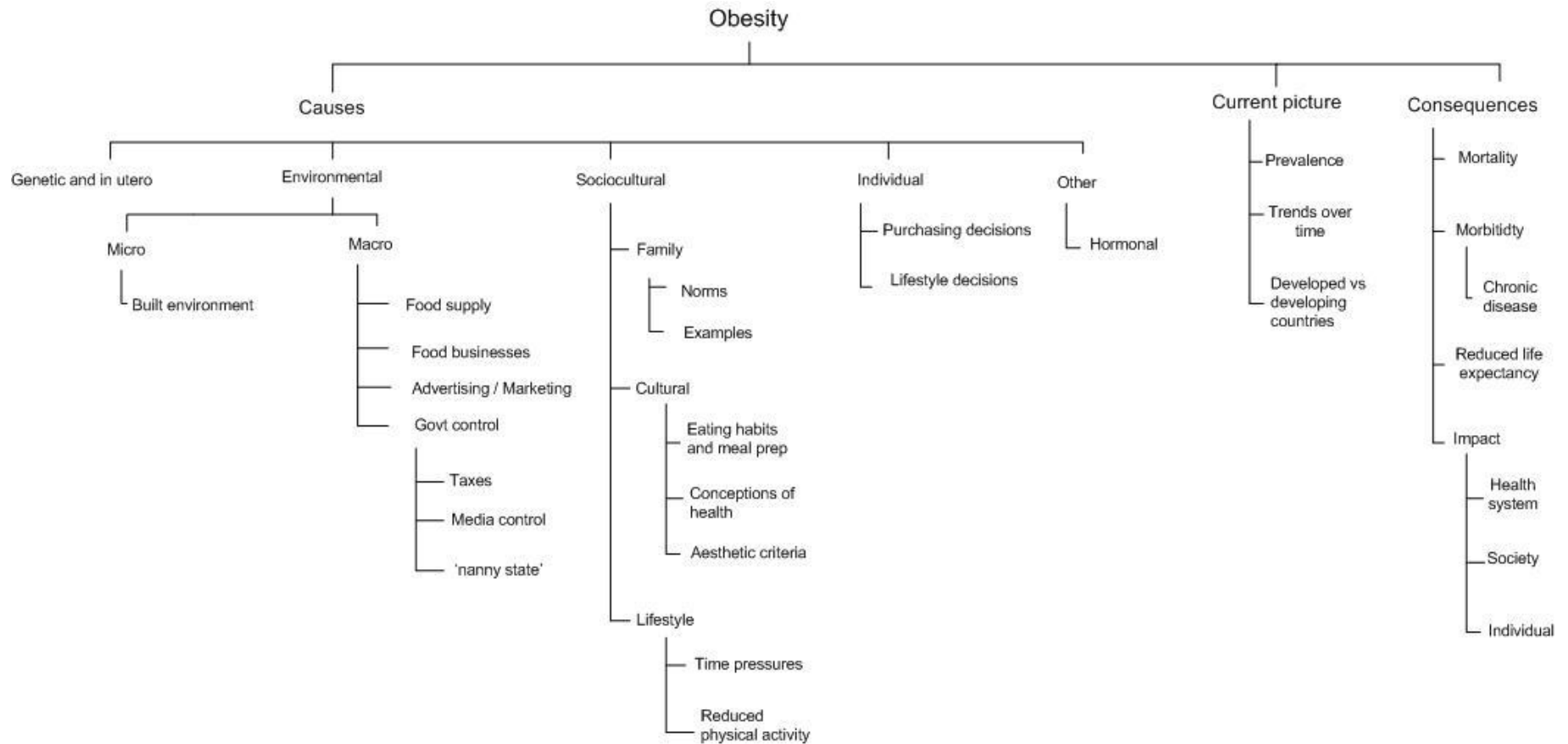
Appendix 2.8 Sample APPRAISAL analysis

	Student post	ATTITUDE Affect	ATTITUDE Appreciation	ATTITUDE Judgement	Engagement	Graduation	Notes
8	Subject: Re:Week 1 and welcome Topic: Module 1 Gp 2 Author: JIM Date: 13 March 2009 15:57 This is a tough series of responses to follow and should be a great course! Since many obvious factors, as evidenced by Antipatis' chapter 1 reading and many, many other sources, contribute to the various intensities of the obesity epidemic by country or region, I'll offer some thoughts with a focus on age and susceptibility in low SES districts in the Southern US. Student R's reference to OBrien's author manuscript regarding 'less sensitive mothers' and the correlation to obese or overweight pre-school aged children caught my attention, yet another I probably wouldn't have considered. I should note		**Tough**: appreciation: complexity (?) verging on judgement: capacity **Obvious** – app complexity - **Great** - valuation **Various** – app – complexity – **Obese/overweight** – valuation neg – verging on judgement – grad **Caught my attention** – reaction – impact? **Unfavourable** – app – valuation neg **Poor** – valuation neg **Profound** – val neg **Fundamental** – valuation but also	Less sensitive – propriety or capacity? **Vulnerable** - capacity **Stacked against them** – capacity neg **Relative complacency** – capacity neg **Dialysis/Macdonalds** – propriety **Poor urban planning** – neg propriety (authorities) **Fast- culture**: propriety **Impressionable** – neg capacity **Underfunded** – propriety (authorities) **Outrageous -** propriety (authorities)	**Is** – bare ass **Should** – entertain **As evidenced** + integral quote + other unnamed (grad +) sources – endorse (supports). **Offer some thoughts** = I think? = entertain **Reference** = referred to = acknowledge **Probably ... considered** – entertain? **Should** – entertain Assertion toggling with entertain then sustained bare assertion **Gomez** - Integral quote – information foregrounded	**Obvious** – focus+ Graduation wrt sources **Obese/ overweight** – grad **Countries** – force – extent + to strengthen own claim to expertise **Considerably** – force – extent + **Highly** – force ? + **Most** – force or focus? **Not uncommon** i.e. common – force – frequency+ **So** – force or focus? **Entirety** – force – extent I**nfinity** – force –	Self presentation through extent of [non-local] experience **Caught my attention** – again personalising relationship to source- cf report states ... butm ore about personal impact **Prof.. reference:** source is own experience – not

my professional point of reference is North American and West African. Canada and the U.S. have considerably different aggregate national prevalence rates, likely due to the diet, culture, and semi-urban / automobile lifestyle of the Southern U.S. which skews the US into a highly unfavourable position. I'd suggest U.S. children of low SES, both sexes, age range 11-15 seem most vulnerable, especially in the South. They currently have everything stacked against them: relative complacency (its not uncommon to observe a dialysis center only footsteps away from a McDonalds in some US cities), poor urban planning, fast food-low activity culture, poverty stress, and the stress of crime. In certain urban environments, violent crime is so profound, playing outside is forbidden by many parents (Gomez et al – 2004 "Violent crime and outdoor physical activity among inner-city youth"). This group is impressionable and also a victim of underfunded public school systems which generate outrageous subsidy revenues from soft drink vendors on premise, still outsource low nutrition high-fat school lunch food services to the lowest bidder, and still cut physical education programs, sometimes in their entirety, all the while the advent of an infinity of media alternatives to physical activity continues. From my recollection, calls for change began around 2004-2005; and, some school districts, the	**Alarmed –** insecurity?	grad **Hard – condition:** val – complexity tho bordering on neg capacity (kids) **Worst –** valuation neg [norm] worsening – valuation incl grad **Improvements:** app – valuation integrated i.e. better + things **Severity –** valuation neg? + grad **Perfect** (storm)– valuation – composition? Ironic – not quite formulaic! **Improvements** - app	**Outsource – bidder:** propriety (authorities) **Cut – entirety** propriety (authorities) **All the while – continues** propriety (authorities/ media) **Serving – too:** propriety **Recipe for disaster –** propriety (fast food chains) **Relentlessly retargeting teens --- fashion:** propriety (fast food chains) incl grad **Bad habits** - propriety	**Still** (twice) – contract – disclaim –counter plus repetition **Unarguably demonstrated** (not clear by whom): contract – proclaim – endorse + pronounce (unarguably) **Actually – not only – but –too:** extended counter **Actually** – counter **Only** – concur - affirm ***Non-integral quote –*** info foregrounded – endorse? Toggle ass/ entertain **Suder study – referenced:** integral ref – endorse (co-text) **Strategic plan –** referencing source **Attached .–** not overt endorsement but acknowledge i.e. no stance shown?	number++ **Around –** focus? **Some** – force – number **Fundamental –** force – extent or focus? **Relentlessly** i.e. constantly – grad ++ - force – frequency? **Worsening –** force or focus? Dynamic not static? **Severity –** extent? **Other countries**? Extent? **Also**? **Some –** Raised?	engagement?? Own recollection as source Note also food/ weight metaphors – recipe for disaster, no means in good shape ...

wealthy ones, began making fundamental changes, especially when the relationship between school diet and academic performance was unarguably demonstrated. But this occurred mostly in higher SES areas, while the poorer districts actually began not only serving lunch, but breakfast too. Add the onset of the recent economic downturn where McDonald's sales are actually increasing, a literal recipe for disaster ensues – recent marketing shifts at McDonalds are relentlessly re-targeting the teens of the late 1990's and early 2000-2001 in a young adult cost conscious fashion. This diet and cultural reality is hard to de-condition or re-condition. Adding the stresses of poverty only confounds a population with one of the worst diabetes increase forecasts in the world. (Mokdad AH et al, JAMA 2003) I think you can apply the same priciples of the Suder study in Poland that Liiqin referenced, once you establish cultural norms like resemblance, etc. If the norm keeps changing (worsening), improvements against it are only relative. I think some of these points can explain the severity of obesity and NIDDM in these US populations. It is a cautionary story to other countries who may also face the same perfect storm. Though some policy improvements are underway and awareness has been raised, its hard to un-do two decades of bad habits. Attached is the strategic plan my state's		– valuation integrated i.e. better + things **Hard** – app – complexity ? **Good** – valu +		**By no means** – pronounce? **Attachment** – ack?	Some - Non-inclusive we – not related to group Irony *NB NIDDM = non-insulin-dependent diabetes*

division of public health is undertaking. We were alarmed and generated some premptive political will to fund this effort. We're by no means in good shape. Attachments: 2005planDiabetesPlan.pdf						

ID	Moderator post Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
1	1 Subject: Week 1 and welcome Topic: Module 1 Gp 2 Author: Sally Austen Date: 12 March 2009 19:59 Hi everyone- I was lucky eough to meet a lot of you last week for the workshop. However, if you are a distance student you may not have had the chance to meet any of us. So I will start by saying hello. I am a Research Fellow working at Drug Health Services at RPA Hospital-	**Welcome** - AFF formula Like – happiness - +ve – irrealis		**Lucky** - Normality +ve	Instructions toggle modality (= entertain) and imperatives Expand in asking question	**Enough?** Focus? Lot/ any – student numbers Dates: force – quant – process (tutored) – extent – scope – time Organising activity – space, time, quantity – at least/	Greeting Pronouns – I, you, some inclusive e.g. us, our; group, let's; less so + everyone, Self-presentation/ identity – work, span of experience tutoring this unit

ID	Moderator post Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	I tutored this subject in 2005, 6 and 7 but took a break last year because of working on the Alcohol Treatment Guidelines project for the Dept of Health & Ageing. This week our topic is age and how it relates to obesity. I would like for you to think about this. What, if any, age groups are more likely to be susceptibnle to weight gain? It would be great if you could find at least one piece of research back to us as a group And tell us what you have found. The contributions don't always need to be just a summary of results of any study- tell us what you think, as well as what the researchers have found.	Great – happiness +ve irrealis underspecified, formulaic Welcome - AFF formula Can't resist – inclination – desire - +ve	Interesting – reaction – impact – ascribed to students (more or less) –self included?		Counter-expectancy: not – just ? Some negation contract: disclaim: deny TASK: decide age group +read paper + summarise + give opinions + interaction	always./ just/ any/ every/ (not) always/ day and night/ overnight / every[one]– quant extent and frequency More – upscale interesting – premodification Along the way – force – quant – (makes) extent – distance - space	Highly incongruent instructions i.e. IP metaphor Way - Journey metaphor

ID	Moderator post Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	And, informal comments and replies to other students are also welcome, as this makes things more interesting along the way. I will check in every day but don't always reply to everyone (otherwise I would be here day and night); however all your contributions will be read- I can't resist logging in to see what has happened overnight. Ok, let's start! Sally						

Appendix 3 Case 3

Appendix 3.1 Unit description

This course looks at ways of reducing tobacco use and the diseases it causes and addresses in particular ethical conundrums in tobacco policy, tobacco control challenges facing less-developed nations and critical assessment of policy and practice.

The cohort in Case 3 was much smaller than in the other two cases – numbering around 20 students – and undertook a three-day intensive workshop before going online for four problem-based discussions, each lasting one week.. Opportunities for getting to know each other would have been far greater, a fact which is obliquely mentioned by several participants in the discussion. Participants were enrolled in related degree programs and external participants (non-degree), local and overseas. A single online group participated in four discussion topics with one main and one secondary moderator. The main moderator is a world expert in tobacco control; the secondary moderator is a doctoral student in tobacco control.

The discussions are assessed (30%) using a rubric addressing quality of posts and interaction, quantity and timeliness. Other assessment activities are an online quiz and two essays.

Appendix 3.2 Case 3 Student survey responses

Case #3 Summary

		Frequency	Percent
Are you:	Male	2	20
	Female	8	70
Your age range (age next birthday)	Under 25	3	30
	25-34	7	70
Degree you are currently enrolled in:	MPH	8	80
	MIPH	1	10
	Other	1	10
Your professional/ study context	Studying full-time and employed	2	20
	Studying fulltime and not working	2	20
	Studying part-time and working	6	60
Have you done an online course before (either partly or fully online)?	Yes	8	80
	No	2	20
Were you educated in Australia?	All of my education took place in Australia	7	70
	Most of my education took place in Australia	1	10
	None of my education took place in Australia	2	20
Which of the following do you listen to or use every day?	Podcasts	2	20
	Social networking program eg Facebook	6	60
	I-phone	1	10
	Chat program eg MSN messenger	3	30
	Skype	1	10
	not answered	1	10
How do you rate the **content** of this course?	Fair	1	10

	Excellent	9	90
How do you rate the **teaching/ presentation** in this course?			
	Poor	1	10
	Fair	1	10
	Good	2	20
	Excellent	6	60
How do you rate the **relevance** of this course to your learning needs?			
	Fair	1	10
	Good	4	40
	Excellent	5	50
How would you rate the **course notes and resources** (print and online) in this course?	Poor	1	10
	Good	4	40
	Excellent	5	50
How do you rate the **appropriateness of assessment** in this course?	Fair	3	30
	Good	4	40
	Excellent	3	30
How do you rate the **WebCT** site provided for your course?	Poor	1	10
	Good	4	40
	Excellent	5	50
In general, how satisfied were you with this course?	Very dissatisfied	1	10
	Neither satisfied not dissatisfied	2	20
	Satisfied	3	30
	Very satisfied	4	40

Did you feel that you learnt what you needed to learn from the online discussions?	Yes	8	80
	No	2	20
Did you feel comfortable in the role of online learner?	Yes, all the time	2	20
	Most of the time	3	30
	Some of the time	5	50
Did you feel adequately prepared for online discussions?	Yes	8	80
	No	2	20
Did you feel other group members made appropriate postings to the discussion?	Always	1	10
	Most of the time	8	80
	Some of the time	1	10
Were you able to develop good relationships with other online group members (students)?	With most of them	1	10
	With some of them	6	60
	With none of them	3	30
Did you feel your moderator was responsive to your needs and interested in you as a person?	Very much so	4	40.0
	To some extent	5	50.0
	Not really	1	10.0
Do you feel the moderator guided the discussion in a way which helped you learn?	Yes	9	90
	No	1	10

Case 3 Free text answers

Those not agreeing to use of their answers or responding a propos a different unit of study were deleted. The answers have been provided here in full as they are instructive; selected answers only were able to be included in the main thesis text.

Response 1

Free text questions not answered

Reponse2
- The online discussions were an excellent learning tool, but sometimes difficult to keep up with as a result of frequent, detailed postings.
- My expectations for the course were met by the learning materials, lecture content and online website. Access to advocacy materials that may be used in other PH courses was also an excellent resource.
- Sometimes difficult to keep up with postings - the content and length of postings was more than I would have expected. ,
- I think you need to have a good general knowledge of the topic under discussion as well as further information/literature from a specific angle that you wish to target. Additional preparation was required as I don't currently work in the field of PH or tobacco control.,
- The postings were informative and engaged discussion on particular topics. Some members were able to provide very detailed posts relevant to their area of expertise which served as a good learning tool in itself.
- Generally positive interactions as other group members supported posts and encouraged discussion. IT was sometimes a little daunting to post information as other group members presented as being very experienced in the field already,
- Moderators assisted in guiding the discussion, asking relevant questions and providing a nice summary of the main points of the discussion at the end of the day/topic.
- The online discussions can be a time-consuming and a large commitment for people that work full time.

Response 3
- many students, very little individual feedback
- short duration of online discussions
- both assignments due on same day - not possible to improve, very late feedback!!
- workshop was excellent, online discussion was fair-poor",
- never had online discussions before, short duration of online discussion, little feedback
- online discussions are difficult, particularly when not having a public health background<
- some group members already had a good basic knowledge of public health, what makes it easier to discuss online; some made postings similar to assignments, so it was not always clear what is expected
- there was no interaction at all with other members,
- little individual feedback - many students; the moderator posed questions regularly and tried to guide the discussion as a whole

Response 4
- Points were considered that i would not have considered with out the discussions. Very interesting, practical content covered.
- For the first 4 weeks the subject was very demanding, more demanding than i expected. Having the rest of semester to concentrate on assignments though is working out very well... better than i expected.
- A lot of other students seemed to work with-in the industry and therefore had A LOT of comments to make. Sometime, even though i was doing a lot of work, i felt as if i was contributing a small amount compared to others.
- For initial post a lot of time, research, reading and preparation was required. After the initial post less preparation was needed, more brainstorming ideas was and opinions was required.
- As i mentioned... some students worked with-in the industry and therefore has extremely interesting, practical postings.
- With most of them, You got a feel for other individuals after reading their posts for 4 weeks. ,

- Adding comments with further questions to keep the discussion on track was great. ,The discussion started Fridays and I work on weekends so by the time i got stuck into the discussion a fair bit had taken place.

Response 5
- Quite enjoyable, some weeks topics were more interesting than others. Sometimes it was frustrating if you raised a question and there was no response. Overall, It was a good way to learn and an enjoyable way to engage with other students in an online course.
- I thought during the lectures there may have been more interaction, or even the opportunity to introduce ourselves, so we could understand the background of all the students studying the course.
- Lots of reading before hand and searching for relevant journal articles. Discussion with people at work and family and friends to see what they think. Drafting each post in a word document before finalizing and contributing to the discussion.
- Sometimes they were way too long, especially right at the start of the topic for the week. That left 'no where to go' so to speak, and I felt like that had debated and concluded the whole topic in one post. Also, some of the posts were repetitive which got a bit boring.
- Positive experience. Very varied group so there were many different opinions and points of view. Gave great food for thought!

Response 6
- Online discussions provided a great forum to interact with other students and throw around ideas and discuss current issues,
- I was really looking forward to this particular course and it definitely met my expectations, by covering a range of topics and issues.
- While i felt comfortable most of the time, the number of times which we were expected to post was a little be daunting
- To be adequately prepared you obviously need to read all compulsory readings, but i believe you also have to be proactive and read more broadly to adequately contribute to the conversations. Othwise you would feel a little lost...
- I though the standard of postings was excellent (well done class!). Though perhaps we need to be given a little more guidance about the expected length and frequency of posts, as some people were writing essays almost everyday and this didn't give others the chance to contribute because everything had already been covered.",
- Overall the experience was very good. My only additional comment would be that in my experience the work load for online subjects if far greater than face-to-face subjects, as there is pressure (possibly self-impossed) to post everyday to gain a high mark. Perhaps this might have something to do with the weighting of this assessment. Maybe the course guidelines need to recommend how many posts and how long they need to be, to get a P/C/D/HD. ",

Response 7
- Experiencing different viewpoints from people from different backgrounds/experience allowed for a comprehensive learning experience.,We received a fair amount of information before the course begun so it met my expectations quite accurately,
- The rush to make a comprehensive post early made me feel quite uncomfortable,
- Significant time spent reviewing relevant literature in order to have a good idea of the evidence base when generating your own ideas regarding a topic,
- Very long postings were time consuming to read and difficult to remember all the points when coming back to it later or responding.,
- Friendly,
- The moderator provided helpful comments which furthered the discussion

Response 8
- For this unit, the online discussions were particularly helpful with regards to learning, because many of the students really put thought into their posts, backed up with research, and made the effort to contribute original ideas and angles to the discussion.

- This course exceeded my expectations as I did not really have any expectations coming into the course. I liked the mixed format of having a 3 day face to face intensive, online discussion, quiz and assessments.
- I enjoyed participating in these discussion and felt comfortable most of the time - it was occasionally a bit off putting when I would try and foster discussion but people did not respond. Being a 'thread killer' is no fun. I have grown up with online discussions, particularly outside of an academic context, so I am very comfortable with the idea of discussing ideas back and forth with posts. Sometimes it was difficult to know where to start with some of our online discussions because some of the students would write *extremely* long posts instead of keeping them short to encourage discussion. This was also because there were no guidelines around word length or brevity, at least to start off with. I think some people see online discussion as a way to post up opinions, rather than to engage with other students and to learn from others. That said, there is also the fact that we are assessed on what we write which probably motivates people to write essay-like answers.
- For our online discussions here, there was quite a bit of preparation needed in terms of searching for relevant research. I personally put some energy into that, but also put a lot of energy into critiquing other posts which is the fun part of online discussions for me. Anyone can look up articles and read about them, but the reason why (online) discussions are good is because your thoughts can get taken into different directions and you can learn from others.
- There is always a mix of the kind of contributions you get with online discussions. Basically the two extremes are those who contribute virtually nothing or very little to further our discussions, those who contribute too much - and the rest fall in between. This particular group was very engaged and had a lot to say, so I was generally very interested in reading their posts and their replies. As stated above, the ones who wrote too much made it hard to know where to start though.
- I think it's very difficult to form 'relationships' with people in this sort of set-up. It's only possible when you get allocated group activities perhaps, or if you had worked together in person before moving online and then had the chance to work together in person again. From my own personal experience, as someone who has many friends online, it can take quite some time to foster what could be deemed as some sort of relationship, and take many discussions. But generally speaking, there were a core group of people who posted a lot and there is a sense of rapport evident.
- [Moderator] has been an excellent online facilitator in the past (one of the core subjects), so I was looking forward to having moderate our discussions. But he was a bit absent for these discussions because of other committments - having said that, these discussions just about ran themselves so he didn't really need to say too much more. I did find some of his questions and critiques very helpful though in directing my own learning in this unit.
- I think online discussions can be a bit hit and miss and it often depends on the topics for discussion participants as well as the facilitator. In this case we had a very energetic class and a very skilled facilitator so the chances were good that the online discussions here would be very scintillating.,

Response 9
- It was an a grat experience, but some times the discussions are large and I feel I am reading essays.
- The expectations were met.,
- Confortable with the materials provided and uncofortable because it was difficult to follow the discussion.
- Yes,read many articles and try to get the best reference for participate in online discussions.,
- very long postings and they comment personal experiences, for internationa students it is difficult to follow very well the correct meaning.",
- With some of them,I wish I could engage more with other members.,
- The moderator always did brief and clear points
- In general, it was a good experience.

Response 10
- I thoroughly enjoyed the on-line discussion component as it brought out the very best in students and exposed their true capabilities

Case 3 Case 3 Sample thread chronology

Date	We have lift off	We have lift off – thread 2 (student generated)	Smokeless tobacco action Group	Round 2	Congratulations to all	Wrapping up this discussion	Issues around regulation – a distraction?
8 Aug							
	MOD 1 07:55 [1]						
	Andrea 08:20 [2]						
	Student E 16:25 [28]						
9 Aug							
	MOD 7:37 [29]						
	MOD1 07:40 [3]						
	Caroline 14:28 [4]						
	Caroline 14:31 [30]						
	Rosemary 14:37 [40]						
	Adit 16:07[41]						
	Melissa 19:24 [5]						
	Student D 19:55 [32]						
10 Aug							
	Adit 9:59 [34]						
	Andrea 15:09 [42]						
	Anh 15:34 [25]						
	Anh 16:28 [35]						
	Theresa 16:58 [36]						
	Leo 17:17 [50]						
	Theresa 17:51 [44]						
		Kumar 21:00 [70]					
11 Aug							
	MOD 2 11:09 [46]						

	MOD 2 11:17 [51]					
	MOD 2 11:21 [38]	MOD 2 11:28 [71]				
	Cynthia 11:32 [53]					
	Adit 12:35 [54]					
	Andrea 12:47 [60]					
	Caroline 16:00 [55]		MOD 2 14:00 [63]			
	Anh 18:26 [57]		Anh 17:54 [64]	Student E 17:11 [79]		
	Mina 20:03 [66]					
	Leo 21:06 [52]					
	Theresa 21:13 [49]					
	Theresa 21:23 [67]					
	Theresa 21:32 [58]					
		Student B 22:29 [73]				
		Student B 23:24 [74]				
		Melissa 23:54 [75]				
12 Aug						
	Student E 06:57 [31]				MOD 06:43 [84]	
	Student E 07:00 [33]					
	Student E 07:06 [37]					
	Student E 07:10 [39]					

Appendix 3.4 Case 3 Thread maps

Part 1

Thread 1 We have liftoff!

Part 2

FROM POST 1

50

51 M
52

53
54 · 57 · 60
55 · 58 · 61
56 · 59 · 62
Renamed

66
67

68

69
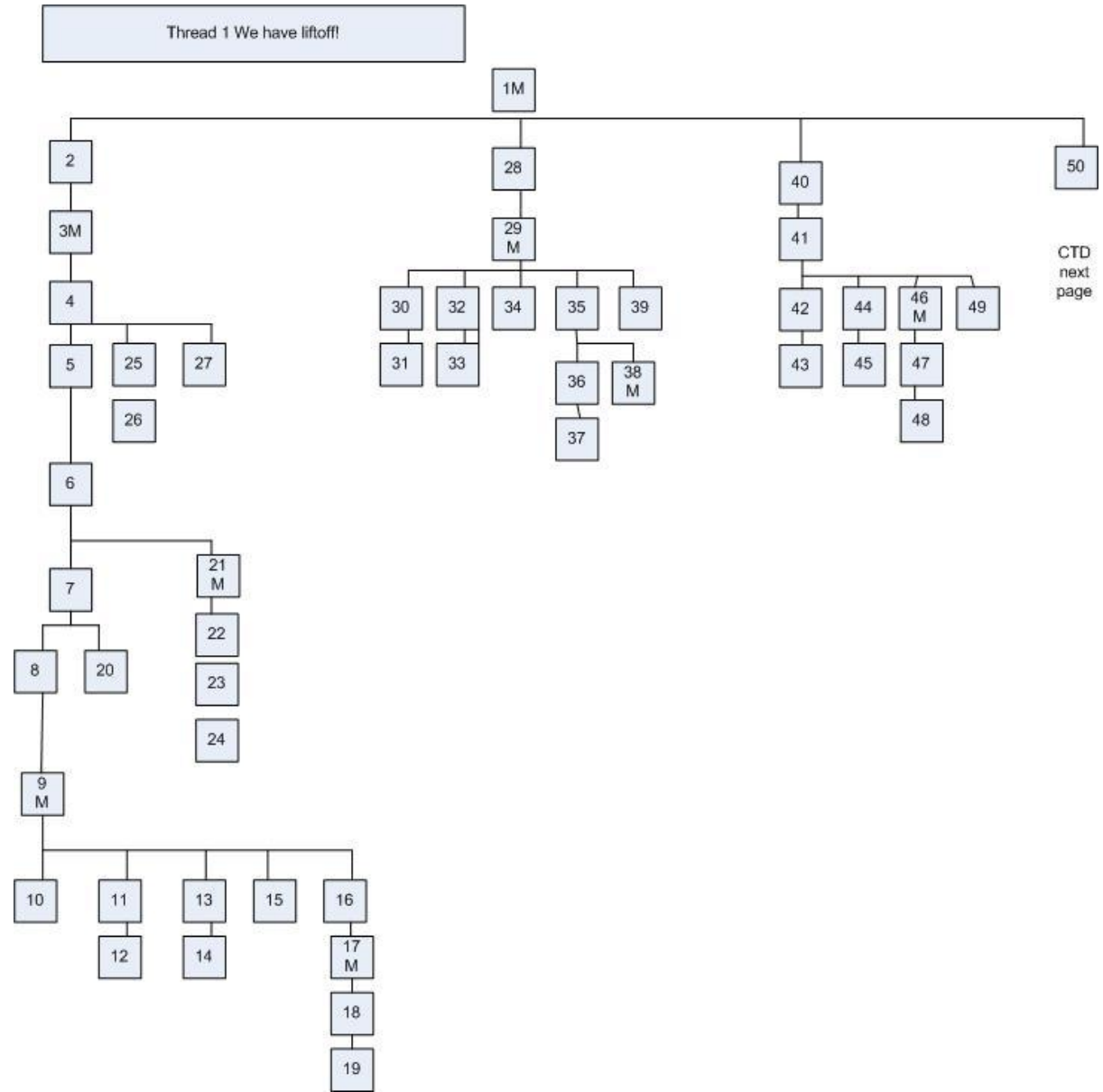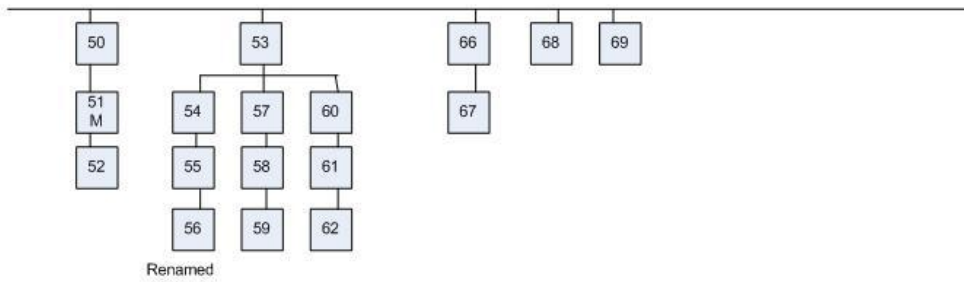
Thread 2 - We have liftoff – new thread, same title, student starts – refs post 2

70
71 · 74 · 77
72 · 75 · 78
73 · 76
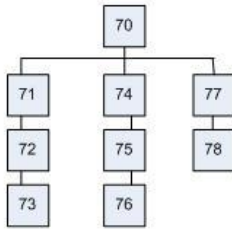
Thread 3 Smokeless tobacco action group

63 M
64
65
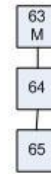
Thread 4 Round 2 student starts

79
80
81
82 · 83
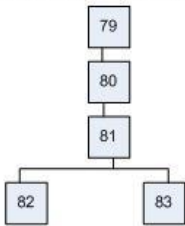
Thread 5 Congratulations to all

84 M
85 · 92 · 103 · 104
86 · 93 M
87 · 88 · 89 · 90 · 101 · 102
91 · 94
95
96
Name change · 97 · 100 · Name change
98 · 99
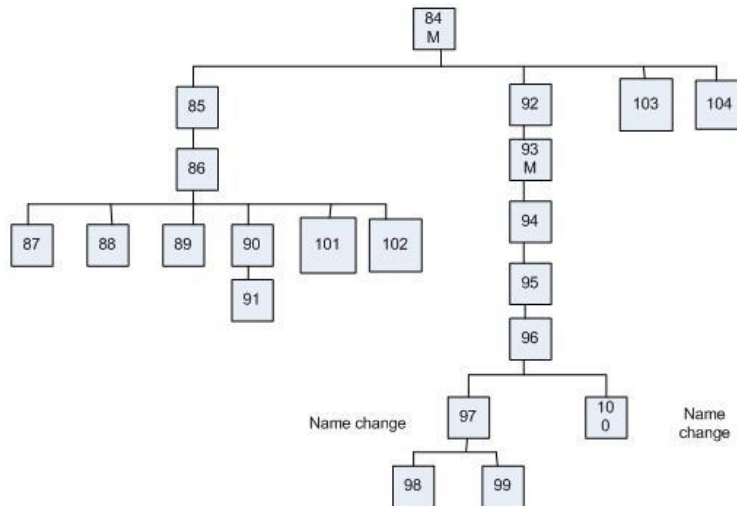
Thread 6 Student starts 1 post

105

Thread 1 only with response trails

Thread 1 We have liftoff!
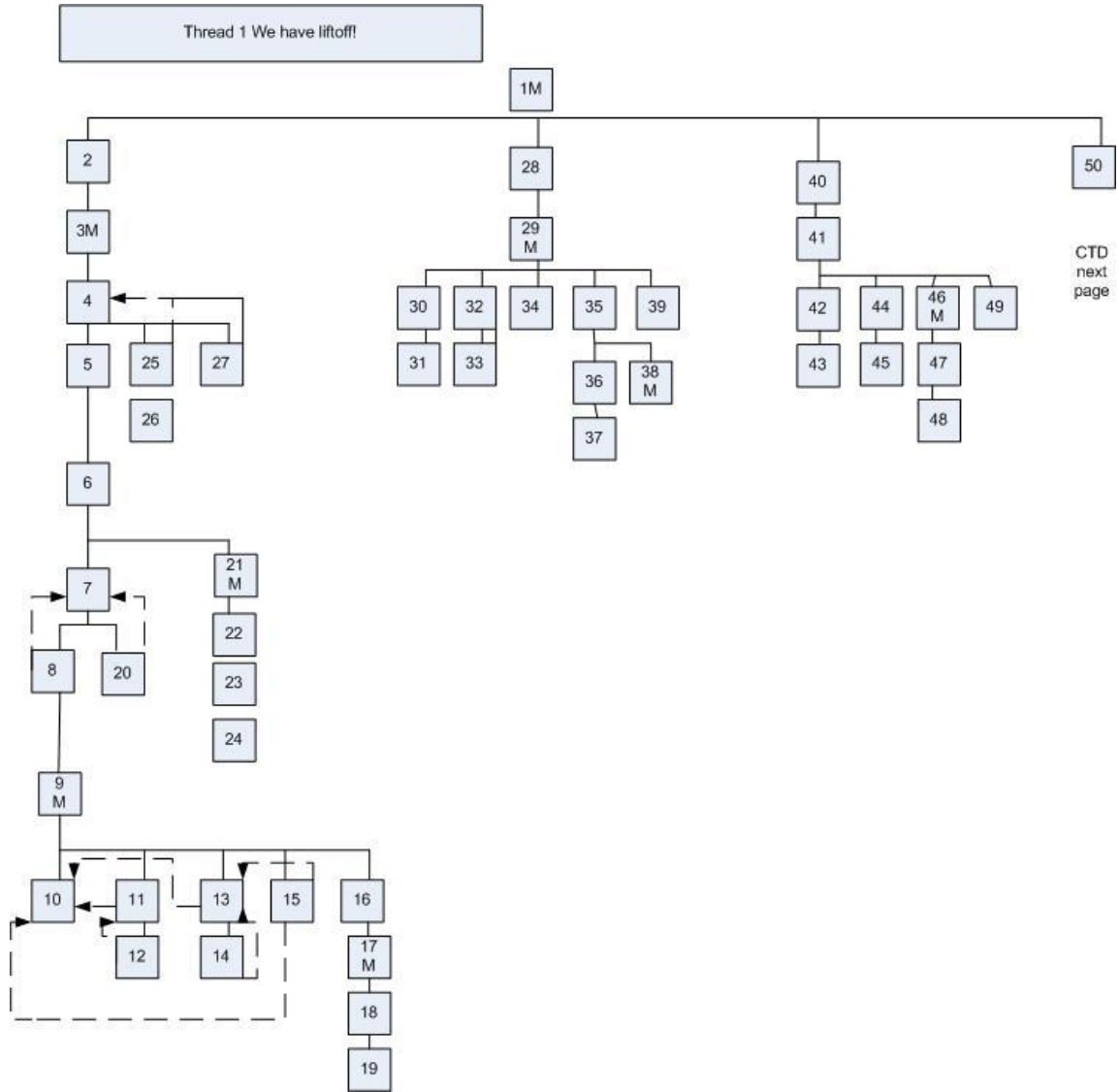
Appendix 3.5 Case 3 Sample exchange structure analysis

This analysis shows an attempt to analyse the exchange into Bernstein's (2000) categories of regulative and instructional exchanges on the basis of requesting and providing a linguistic service. For reasons outlined in Chapter 4, this did not prove viable, although the exchange structure analysis did allow for the development of a curriculum macrogenre. This sample also shows the extensive K2 move complex in the student's answer.

Exchange ID	Regulative Exchange	**Discussion name and number**	Instructional Exchange
1.		Subject: We have lift off! Topic: 1: Harm reduction	
		Author: ProfJulian Stanhope Date: 8 August 2008 07:55	
		Hi everyone – and welcome	GR
		to the first problem of 4 we will consider.	K1
	?A2:LS	During this week we will consider the issue of harm reduction in today's tobacco control environment.	K1
	A2:LS	First, read this speech (http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf) delivered by senior Philip Morris executive David Davies at the National Press Club in Canberra in March 2005. Then read the press release put out within hours by Chris Pyne MP, then secretary for health in the federal government. (see http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf)	
	A2:LS	Now....this is how we will start:	K1
	A2:	Scenario: Imagine you work in an agency dedicated to reducing the harm caused by tobacco use in the community.	
		The National Tobacco Strategy invites your agency to nominate a representative to sit on a new national planning committee	K1 moves as part of scenario
		which will consider how best harm reduction principles might become incorporated into the national tobacco control strategy.	
		The committee will comprise government, scientific, NGO and tobacco industry representatives.	K1
		What is meant by harm reduction?	dK1
		What should be your objectives in relation to it?	dK1
	A2: LS	Consider your strategy in responding to this scenario.	

	A2:LS A2: LS A2:LS A2:LS	By the end of the week we should have explored the challenges this problem presents and settled on a few strategies that we might use in response here. Suggested reading: Search "harm reduction" in the keyword search window on the Tobacco Control journal website. There are many recent and state-of-the-art papers on the topic there. Perhaps the best summary is: *Kathleen Stratton, Padma Shetty, Student EWallace, and Stuart Bondurant. Clearing the smoke: the science base for tobacco harm reduction executive summary. Tob. Control 2001; 10:189-195.* Over to you….	K1 K1
2.	A1: LS (whole post)	Subject: Re:We have lift off! Topic: 1: Harm reduction Author:Andrea Date: 8 August 2008 08:20 Hi all, I thought I'd get the ball rolling. I'm looking forward to participating in some interesting discussion about harm reduction over the next week. Cheers, Andrea Stratton et al (2001) describe 'a product as harm reducing if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants'. In recent years there has been much discussion about the development or introduction of such 'potential reduced exposure products' or harm reduction interventions. They include: * modified tobacco, such as Snus (a smokeless tobacco product which is widely used in Sweden) *cigarette like products * pharmaceutical products, such as nicotine replacement or medicinal nicotine, antidepressants or other medications (Stratton et al 2001) When David Davies (a senior Philip Morris executive) delivered a speech at the National Press Club in Canberra in March 2005, he pushed his (and inadvertently the tobacco industries) agenda for the reintroduction of smokeless tobacco products. No doubt his enthusiasm for the development of these	K1 K1 Series of K2 moves – some K2 move complexes Not divided into clauses or analysed separately

products, stems from the ever declining cigarette markets in many developed countries (Chapman 2007). He called for government regulation of these products, so that the industry can market the 'safer' products to consumers. Although regulation may indeed ensure the management of toxic ingredients, it also opens the door for tobacco advertising, which is currently banned in Australia and many other nations. The advertising of such 'safer' products will likely allow the industry to aggressively market their smokeless tobacco products to non or ex smokers, and children, despite the fact that industry representatives continually claim that they aren't interested in persuading children to smoke, despite their subversive advertising techniques (Davies 2005). Up until now, the tobacco industry has developed only a few genuine harm reducing products – Eclipse, Premier and Accord - though uptake has been low.

Snus is a smokeless tobacco product, widely used in Sweden, which delivers high doses of nicotine without causing cancer or respiratory problems (Foulds 2003). Since the product was introduced there has been a significant drop in smoking rates amongst men in Sweden, as well as a reduction in lung cancer and myocardial infarction. Despite these groundbreaking outcomes, it's unclear if the introduction of Snus in Australia, as part of a harm reduction strategy, would have the same benefits, as there is not adequate research which shows that Snus or similar smokeless tobacco products, would be effectively exported to other countries (Chapman 2007).

The development of a harm reduction strategy for the national tobacco strategy would be a very complex process, especially considering the varied backgrounds of the committee members. Our agency representative would need to have very thorough knowledge of Commonwealth legislation and public issues/scientific research, to make a valuable contribution to the planning process and strategy.

There is a growing body of evidence which shows that theoretically harm reduction may be an effective way of improving individual and population health, though expects have not reached on a consensus on the most effective strategy (Martin et al 2004).

The harm reduction strategy would need to compliment programs which have proven successful in reducing the rate of smoking and have positive health outcomes, such as prevention, cessation and community protection from environmental tobacco smoke. Although low nitrosamine smokeless tobacco (LNST) products may cause less health harm than traditional cigarettes, they still cause greater harm than no tobacco exposure (Giovino 2004).

Objectives of harm reduction

* Reduce the incidence and prevalence of lung cancer – the leading cause of cancer death in Australia

* Reduce the smoking rate

* Encourage smokers to use a product which is far less harmful than cigarettes

* Encourage smokers to use LNST to quit

* Discourage non-smokers or ex-smokers to take up LNST products

* Deliver the best public health outcome within a limited budget

References

Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.

J Foulds, L Ramstrom, M Burke, and K Fagerström. Effect of smokeless tobacco (snus) on smoking and public health in Sweden

Tob. Control, Dec 2003; 12: 349 - 359.

Giovino G. Tobacco harm reduction involves more than cigarette harm harm reduction. Am J Public Health. 2004 August; 94(8): 1294.

Harm Reduction, Institute of Medicine. Clearing the Smoke: Assessing the Science Base for Tobacco Harm Reduction. Washington, DC: National Academy Press; 2001.

E G Martin, K E Warner, P M Lantz. Tobacco harm reduction: what do the experts think? Tob. Control, Jun 2004; 13: 123 - 128.

Stratton K, Shetty P, Wallace P, and Bondurant S. Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tob. Control 2001; 10:189-195.

Appendix 3.6 Case 3 edited transcript

ID	Text
1.	Subject: We have lift off! Topic: 1: Harm reduction
	Author: Prof Julian Stanhope Date: 8 August 2008 07:55
	Hi everyone – and welcome to the first problem of 4 we will consider.
	During this week we will consider the issue of harm reduction in today's tobacco control environment.
	First, read this speech *(http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf) delivered by senior Philip Morris executive David Davies at the National Press Club in Canberra in March 2005.* Then read the press release put out within hours by Chris Pyne MP, then secretary for health in the federal government. *(see http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf)*
	Now....this is how we will start:
	Scenario: Imagine you work in an agency dedicated to reducing the harm caused by tobacco use in the community. The National Tobacco Strategy invites your agency to nominate a representative to sit on a new national planning committee which will consider how best harm reduction principles might become incorporated into the national tobacco control strategy.
	The committee will comprise government, scientific, NGO and tobacco industry representatives.
	What is meant by harm reduction?
	What should be your objectives in relation to it?
	Consider your strategy in responding to this scenario.
	By the end of the week we should have explored the challenges this problem presents
	and settled on a few strategies that we might use in response here.
	Suggested reading:
	Search "harm reduction" in the keyword search window on the Tobacco Control journal website. There are many recent and state-of-the-art papers on the topic there.
	Perhaps the best summary is: *Kathleen Stratton, Padma Shetty, Student EWallace, and Stuart Bondurant. Clearing the smoke: the science base for tobacco harm reduction executive summary. Tob. Control 2001; 10:189-195.*
	Over to you....
2.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Andrea Date: 8 August 2008 08:20
	Hi all,
	I thought I'd get the ball rolling.

ID	**Text**
	I'm looking forward to participating in some interesting discussion about harm reduction over the next week.
	Cheers,
	Andrea
	Stratton et al (2001) describe <u>'a product as harm reducing if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants'.</u> In recent years there has been much discussion about the development or introduction of such '<u>potential reduced exposure products' or harm reduction interventions.</u>
	They include:
	* modified tobacco, such as Snus (a smokeless tobacco product which is widely used in Sweden)
	*cigarette like products
	* pharmaceutical products, such as nicotine replacement or medicinal nicotine, antidepressants or other medications (Stratton et al 2001)
	When David Davies (a senior Philip Morris executive) delivered a speech at the National Press Club in Canberra in March 2005, he pushed his (and inadvertently the tobacco industries) agenda for the reintroduction of smokeless tobacco products. No doubt his enthusiasm for the development of these products, stems from the ever declining cigarette markets in many developed countries (Chapman 2007). He called for government regulation of these products, so that the industry can market the 'safer' products to consumers. Although regulation may indeed ensure the management of toxic ingredients, it also <u>opens the door</u> for tobacco advertising, which is currently banned in Australia and many other nations. The advertising of such 'safer' products will likely allow the industry to aggressively market their smokeless tobacco products to non or ex smokers, and children, despite the fact that industry representatives continually claim that they aren't interested in persuading children to smoke, despite their subversive advertising techniques (Davies 2005). Up until now, the tobacco industry has developed only a few genuine harm reducing products – Eclipse, Premier and Accord - though uptake has been low.
	Snus is a smokeless tobacco product, widely used in Sweden, which delivers high doses of nicotine without causing cancer or respiratory problems (Foulds 2003). Since the product was introduced there has been a significant drop in smoking rates amongst men in Sweden, as well as a reduction in lung cancer and myocardial infarction. Despite these groundbreaking outcomes, it's unclear if the introduction of Snus in Australia, as part of a harm reduction strategy, would have the same benefits, as there is not adequate research which shows that Snus or similar smokeless tobacco products, would be effectively exported to other countries (Chapman 2007).
	The development of a ***harm reduction*** strategy for the national tobacco strategy would be a very complex process, especially considering the varied backgrounds of the committee members. Our agency representative would need to have very thorough knowledge of Commonwealth legislation and public issues/scientific research, to make a valuable contribution to the planning process and strategy.
	There is a growing body of evidence which shows that <u>theoretically</u> harm reduction may be an effective way of improving individual and population health, though expects have not reached on a consensus on the most effective strategy (Martin et al 2004).
	The harm reduction strategy would need to compliment programs which have proven successful in reducing the rate of smoking and have positive health outcomes, such as prevention, cessation and community protection from environmental tobacco smoke. Although low nitrosamine smokeless tobacco (LNST) products may cause less health harm than traditional cigarettes, they still cause greater harm than no tobacco exposure

ID	**Text**
	(Giovino 2004).
	Objectives of harm reduction
	* Reduce the incidence and prevalence of lung cancer – the leading cause of cancer death in Australia
	* Reduce the smoking rate
	* Encourage smokers to use a product which is far less harmful than cigarettes
	* Encourage smokers to use LNST to quit
	* Discourage non-smokers or ex-smokers to take up LNST products
	* Deliver the best public health outcome within a limited budget
	References
	Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.
	J Foulds, L Ramstrom, M Burke, and K Fagerström. Effect of smokeless tobacco (snus) on smoking and public health in Sweden
	Tob. Control, Dec 2003; 12: 349 - 359.
	Giovino G. Tobacco harm reduction involves more than cigarette harm harm reduction. Am J Public Health. 2004 August; 94(8): 1294.
	Harm Reduction, Institute of Medicine. Clearing the Smoke: Assessing the Science Base for Tobacco Harm Reduction. Washington, DC: National Academy Press; 2001.
	E G Martin, K E Warner, P M Lantz. Tobacco harm reduction: what do the experts think? Tob. Control, Jun 2004; 13: 123 - 128.
	Stratton K, Shetty P, Wallace P, and Bondurant S. Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tob. Control 2001; 10:189-195.
3.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: Julian Stanhope Date: 9 August 2008 07:40
	Thanks for starting us off nicely like this Andrea.
	You are VERY correct in saying that this issue presents complexity.
	So .. can people turn their heads to the various dimensions of that complexity.
	By the end of the week we might have articulated most of these
	as well as giving thought to our strategy in resolving what to do.
	Julian
4.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Caroline Date: 9 August 2008 14:28
	Hi all,
	One of the complexities that I think it is important to highlight is that reduced harm products still have "continued exposure to tobacco related

ID	**Text**
	toxicants" (Stratton et al, 2001).
	The possible mistaken belief that the health risks of smoking are reduced by using 'harm reduced' cigarettes is likely to increase the total damage caused by cigarettes across the population by reducing quit attempts, encouraging ex-smokers to resume smoking, and encouraging young people to start smoking (Cancer Council Australia 2007, position statement on 'Dangers of 'reduced-harm' cigarettes' 2007, available from website URL http://www.cancer.org.au/policy/positionstatements/smokingtobaccocontrol/dangersofreducedharmcigarettes.htm).
	Stratton et al, (2001) also recognise this by identifying that:
	- tobacco users who might otherwise have quit did not
	- former tobacco users resumed use
	- Some people who would otherwise not have used tobacco did so because of perceptions of minimal risk
	If this is the case, is this reducing harm for the population as a whole?
	Also of importance is that potential reduced exposure products (PREPs) "potentially result in reduced exposure to toxicants. Whether exposure to tobacco toxicants is reduced depends on the user's behaviour such as frequency and intensity of use. Reduced exposure does not necessarily mean reduced risk to the user or reduced harm to the population" (Stratton et al, 2001).
	What is the danger in incorrectly claiming that a product reduces the risk of a specific disease (compared to the risk of the product that it is replacing)? Is there sufficient, scientifically sound evidence for possible harm reduced products?
	Stratton et al (2001) conclude that it is feasible, but not yet evaluated comprehensively enough. They even go so far as to say that "the public health impact of PREPs is unknown. They are potentially beneficial, but the net impact on population health could, in fact, be negative.
	The Cancer Council Australia (2007) reminds us that "there is no such thing as a safe cigarette and no safe level of exposure to the carcinogens or other toxic substances contained in tobacco smoke". Stratton et al (2001) also recognise that many different policy strategies may contribute to harm reduction.
	However, I also recognise the complex ethical issues in denying access for consumers to possible reduced harm products. Also, what kind of impact might be possible on communities with highest smoking prevalence in Australia, eg, Indigenous, those in prison, mental health etc, where prevalence rates remain high?
	Seems to me that there are a lot of "may", "possibly", "potentially" "could be"…. surrounding the issue of reduced harm products.
	What do others think?
	Caroline
5.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: MELISSA Date: 9 August 2008 19:24
	Hi all,
	I thought I would focus on one of the complexities of harm reduction in tobacco control, the issue of consumer sovereignty and advertising.
	I agree with Stratten et al., (2001), that smokers have the right to be aware of supposed 'lower risk' products, but how will this be advertised in a country such as Australia, where tobacco advertising is banned? No doubt, the tobacco industry is interested in smokeless tobacco as a 'way back

ID	Text
	in' to advertising. As is reported by Chapman (1997), the tobacco industry would hope to use the introduction of smokeless tobacco products to weaken tobacco advertising bans with the 'best intention' of providing consumers information 'for their own health'. David Davies argument in the latter part of his 2005 speech draws on this idea further. He states 'would it be morally right not to be able to communicate to smokers to tell them that such products are available?'...

If smokeless tobacco products are introduced, how will the marketing be controlled? Although marketing must be restricted (Stratten et al., 2003), moderation and control of the flow of information and marketing would be difficult to control (Chapman, 2007). You would think that tobacco companies with decades of experience in 'below the belt' advertising would be able to put their message out, not only for smokeless tobacco products but for traditional cigarettes as well. As stated in a review and commentary of smokeless tobacco advertising by Myers (2003), the primary aim of tobacco manufactures is to maximise sales in both smokers and non-smokers... and they will use health related effects of smokeless tobacco to do it!

I think the issue of advertising and marketing is one of the most difficult and challenging problems in harm reduction discussion. The organisation's representative would need to be very strict in their idea and communication with the tobacco industry and government, to ensure that tobacco advertising bans are not weakened and the benefits of harm reduction strategies are upheld.

I'll keep trying to consider this issue more.

Cheers,

Melissa

Chapman (1997). Public health advocacy and tobacco control: making smoking history. Blackwell Publishing: Oxford.

Myers, M (2003). Beware the rooster: smokeless tobacco companies who claim they want to help.Tobacco Control (12): 342

Stratton, K., Shetty, P., Wallace, R & Bondurant, S. (2001). Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tobacco control (10): 189-195. |
| 6. | Subject: Re:We have lift off! Topic: 1: Harm reduction

Author: STUDENT E Date: 12 August 2008 07:25

Sees this as a clinical issue, no need for PH involvement. |
| 7. | Subject: Re:We have lift off! Topic: 1: Harm reduction

Author: CYNTHIA Date: 12 August 2008 08:39

Hi all,

Like Canada, if Australia were to introduce snus (as well as other smokeless products) I believe its uptake would be minimal. The only way snus consumption would increase is through marketing its health benefits. However any marketing may be misconstrued, younger and older generations may take up the use of snus with the belief it is barely harmful, it may even become a trend among younger generations.

Cynthia |
| 8. | Subject: Re:We have lift off! Topic: 1: Harm reduction

Author: LEO Date: 12 August 2008 13:22 |

ID	**Text**
	Hi all
	I agree with Cynthia, the only way snus consumption would increase is through marketing its health benefits. I think that snus can be used to help people quitting. In my particular point of view, GP could prescribe snus to people who want to stop smoking. The health risks of this product seem to be low, in absolute terms as well as relation to cigarette smoking. I know that the introduction of snus may cause undesirable consequences such as attracting young people to tobacco use. For this reason, snus availability needs to be regulated using prescriptions from General Practitioners. I want to share this interesting article which points out an increased likelihood of stop smoking using snus.
	The researchers found that among men who made attempts to quit smoking, snus was the most commonly used cessation aid, being used by 24% on their latest quit attempt. Of those men who had used one single cessation aid 58% had used snus, as compared with 38% for all nicotine replacement therapy products together. Among men who used snus as a single aid, 66% succeeded in quitting completely, as compared with 47% of those using nicotine gum or 32% for those using the nicotine patch. Women using snus as an aid were also significantly more likely to quit smoking successfully than those using nicotine patches or gum.
	There is some evidence that snus can help people to quit smoking. However, there are not enough studies made in other countries to support these findings. I think people know the potential health risks that tobacco causes, and smokers made attempts to quit smoking. Prescriptions from GPs can help people who are planning to stop smoking.
	Thanks
	References:
	L M Ramström and J Foulds Role of snus in initiation and cessation of tobacco smoking in Sweden Tob. Control, Jun 2006; 15: 210 - 214.
	Chapter 4 of Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.
9.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 12 August 2008 13:44
	A possible scenario for you to consider...how would you respond?
	I am a former smoker who gave up cigarettes a couple years ago, but I still miss that delicious nicotine hit and fear I could relapse at any time.
	When I learn that snus is available through my doctor, I decide to go and get a prescription. I am mildly annoyed that unlike cigarettes (the most dangerous product) I can't just buy my snus at the local shops. But, what really makes me mad is when I go to see my GP she won't give me a script because I don't meet treatment criteria - ie I'm not a current smoker who has tried to quit unsuccessfully using other means.
	I am outraged and write a letter to my MP and the Sydney herald calling for "common sense" in tobacco regulation. Smokers are allowed their cigarettes why can't I have my snus? Snus is after all, according to the tobacco control experts who put these laws in place, safer!
	Alex
10.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Student D Date: 12 August 2008 14:07
	Snus should be regarded as harm minimisation strategy for those with severe addiction.
11.	Subject: Re:We have lift off! Topic: 1: Harm reduction

ID	**Text**
	Author:Andrea Date: 12 August 2008 14:45
	I'm in two minds about this one:
	On the one hand, I agree with Student D, that Snus needs to be promoted as a treatment for nicotine addiction and not a 'hit' when the patient has a momentary lapse or craving.
	On the other hand, perhaps the criteria needs to flexible in order to achieve the greater goal of reducing smoking rates and associated health problems. Maybe we should give doctors the freedom to exercise their judgement, and if they feel their patient is at serious risk of resuming smoking, they can supply them with a script for a reduced supply of Snus.
	Also, would an ex-smoker, who fears a relapse, necessarily turn back to cigarettes? Perhaps not. Perhaps other readily available over-the-counter NRT products such as gum, inhalers or patches might help them over the 'slump' and maintain their 'clean record'.
	Sorry, I realise that I haven't taken a clear line on this issue, but thought I'd shared my thoughts anyway.
	Cheers,
	Andrea
12.	Author: THERESA Date: 13 August 2008 13:19
	I agree with your lats point Andrea
	So far much of our discussion has compared Snus to cigarettes - considering whether harm minimisation which moves a smoke from cigarettes to Snus is beneficial enough, given the risk Snus is competing with abstinence.
	However, we do also need to compare Snus with NRT etc.
	In lecture 5 of this course we were presented a with a hierarchy of harm minimisation which showed smokeless tobacco as less desirable in terms of harm minimisation than medicinal products like NRT. We heard that higher levels nicotine levels in a medicinal product would be unlikely to be approved due to toxicity risk.
	In lecture 4 we saw that snus like products have nicotine levels that are higher than NRT and more like the "hit" of a cigarette.
	In lecture 6 we saw that in a 2005 Australian study 27% of people used NRT to quit.
	Why would we introduce a new product which may actually substitute for NRT ? how could we be sure it would be used by smokers and not people who would be willing to use NRT to give up or avoid a relapse?
	Am at work at present and I have limited time to search the literature but... Is anyone aware whether NRT usage has dropped in countries where snus use has increased?
	Theresa
13.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: LEO Date: 12 August 2008 15:32
	In order to acquire snus, people need to overcome some obstacles in trying to obtain snus. Firstly, the person needs to have a medical appointment with the GP. Secondly, pay for the services offered by the GP and at the same pay a price to buy snus. I believe that snus could be

ID	**Text**
	regulated with the same restrictions as others drugs are regulated.
	I agree with Student D in the sense that snus is not something which is readily available to all. There must be rules or guidelines to prescribe snus. Another possibility is to train doctors or health professionals to take special permission to prescribe snus. In this way we could control the use of snus in people who really need it.
	Regards
14.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: CYNTHIA Date: 12 August 2008 16:18
	I think the above mentioned monitoring systems are good in theory but with something like snus, something so new to our culture it is impossible to tell how it will be accepted or rejected. If the circumstance Rebecca mentioned was common i believe it would lead to a huge illegal snus market. Since snus is readily available in certain countries overseas it will surely be smuggled into Australia.
	Cynthia
15.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ADIT Date: 12 August 2008 19:22
	Hi all.
	I think I share the same viewpoint as Student D and Leo. As part of a harm reduction initiative to entice smokers to switch from conventional cigarettes to smokeless tobacco, regulations should be clearly stipulated from the onset that Snus is part of a cessation program for current smokers only. Although the scientific research coming out from Sweden strongly suggests that Snus is safer in terms of the Benefits outweighing the potential health Risks, it still contains known levels of toxicants that are dangerous. Therefore it would not be advisable for an ex-smoker to be prescribed Snus under any circumstances. An ex-smoker would be in a relatively healthy state, if he or she had given up smoking for a period of time, and this would definitely be enhanced through overall lifestyle modification. For an ex-smoker, Snus should not be an alternative at all. We certainly don't want to re-introduce the toxicants found in Snus, albeit classified as a PREP. If the patient feels that he or she is going to relapse, then NRT would be the more appropriate form of treatment, where nicotine dose levels are designed to be gradually released into the circulation, tapering the dose over the treatment period.
	If the patient has given up smoking for a number of years as you mentioned, then chances are that he or she may have used NRT as part of a quit program. If the patient strongly has a craving for nicotine, then this sensation would be precipitated through having heard of Snus.
	I think what is important to remember as Student D has stipulated is that Snus is not some sort of "replacement therapy" for ex-smokers (who have been nicotine free for some time) who feel the need for some sort of "buzz" between alternating time frame periods. And as Leo has mentioned GP's should be adequately trained when it comes to the prescription of a product such as Snus. Hence current smokers should be differentiated from ex-smokers, with ex-smokers who feel the need for a "nicotine rush" to be steered towards counselling therapy, and if need perhaps a prescription of NRT as opposed to Snus.
	Regards,
	Adit
16.	Subject: Re:We have lift off! Topic: 1: Harm reduction

ID	Text
	Author: Student B Date: 12 August 2008 22:16
	Snus may be an effective cessation tool and cannot be introduced to the market for any other purpose before all tobacco products are regulated.
17.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 13 August 2008 10:16
	Hi Student B,
	You've identified, what I feel, is a key obstacle with the prescription-style introduction of snus - the fact that cigarettes (the very product we are most concerned about) would still be available on every street corner.
	Alex
18.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 13 August 2008 10:19
	Perhaps cigarettes require a script from the GP and snus is available at every corner store...
19.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 13 August 2008 11:11
	Ha, I agree! Reading through all these comments is now making me feel a great deal of empathy for the snus advocates. We are proposing all sorts of barriers - having to go to a doctor for a consultation and to get a prescription, buying it through a pharmacy with a script etc - when more dangerous cigarettes are available everywhere and completely unregulated in that way. It should be the other way around ;)
20.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: MINA Date: 14 August 2008 22:35
	Hi Cynthia,
	I agree with you in terms of marketing the health benefits of snus. Of course, you can't promote snus as "health beneficial".
	Snus is widespread in Sweden particularly among men (18.2%), whereas only 1,7% of women use snus (1).
	I believe that it would be very difficult to "promote" snus use as an alternative to cigarette smoking in other countries than in Sweden.
	Besides that, the reductions in smoking among both Swedish men and women are not only attributable to the promotion of snus use but also to "a broad range of tobacco control efforts including increased communications about the dangers of smoking, increased restrictions on tobacco product marketing, increased taxation on tobacco products, and increased treatment availability" (1)
	In addition, "approximately 3% of nicotine consumption in Sweden currently is provided by nicotine medications and this level of medicinal nicotine uptake greatly exceeds that of any other nation" (1) Since 1983 total nicotine consumption in Sweden has dropped by about 20% although the use of snus and NRT has increased since then.
	"The main reduction in tobacco attributable mortality in Sweden is undoubtedly caused by the decline in cigarette smoking, and not by increased use of snus and nicotine medications per se" (1).

ID	Text
	I don't believe in the promotion of snus. As shown in the USA in the 70ies and 80ies, when smokeless tobacco was promoted and led to an increase in smokeless tobacco use and subsequently to an increase in cigarette smoking among young people in the 1990ies (1). Cheers, Mina 1)Jack E Henningfield and Karl O Fagerstrom. Swedish Match Company, Swedish snus and public health: a harm reduction experiment in progress? Tobacco Control 2001; 10: 253-257
21.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: ALEXANDRA WALSH Date: 12 August 2008 09:49 Hi Student B, I like your clever soda vs milk analogy, gave me pause for thought. The one problem I see is that there are no stand alone health benefits for snus or even nrt. As a nonsmoker I won't be benefiting my health if I start using the patch. But clearly there are benefits for smokers who switch completely to snus and even more so to nrt. So, is there not a case to make health claims that are specific to smokers? Let's say for example: if you smoke and cannot quit, fully replacing all your cigarettes with snus is a healthier alternative. (Or something like that that reads well!) There are smokers who are grossly misinformed about the relative dangers of nrt -while I'm not convinced this is the primary reason for not using or trying these products it might influence some not to bother. Alex
22.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: STUDENT E Date: 13 August 2008 10:28 *Response to comment re milk/ soda analogy; no direct advertising.*
23.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: STUDENT E Date: 13 August 2008 10:30 *Mentions own referencing.*
24.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: KUMAR Date: 13 August 2008 21:41 Hmm a tricky one - thanks Alex. Actually in the Methadone model the barriers are not that great - once you've overcome the initial hurdles a steady supply is reasonably easy to come by. I don't think there is a perfect solution but in the addiction model Snus would only be available to current users.

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	If you've done the hard work and succeeded in quitting then motivational theory, groups or other personal support may help or even NRT. Even though it doesn't have quite the same "hit" it may just provide enough to overcome cravings.
	Overall I would be more concerned that getting the "hit" would encourage relapse to justify making it available for cravings rather than current use.
	I think with many public health policies there is no win-win for everyone - it is a question of doing what is best for most.
	Kumar
25.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 10 August 2008 15:34
	Hi Caroline,
	It is an interesting point you raise about the impact that might be possible on communities with high smoking prevalence in Australia such as Indigenous, those in prison, mentally ill etc...it seems to me, if we must go down the path of investing in harm reduction, then these are the populations we could target in the first instance. If the tobacco companies are as committed to harm reduction as they say they are and "share a common goal" with us, then they can prove this by helping us work with some of the most vulnerable (and most addicted) populations who might benefit the most from reduced risk tobacco products, but who are not the most profitable sections of the community.
	But given everything that has been discussed so far by everyone - the uncertainty around PREPs and the fact that we have some idea that it could have a negative impact on public health overall, it seems to me that this is where the Precautionary Principle could come into play, in a sense. We don't know for sure that PREPs will cause harm in the long run, but there is enough evidence to suggest it. Given the Australian context of continually declining smoking rates overall, it is not justifiable to waste too much time, energy and money on this strategy because of the opportunity costs.
26.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:31
	In many institutional settings there is the added factor that cigarettes as a form of currency in institutional settings; possibly snus could be trialled in these settings.
27.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:16
	Discusses difference between "relative or comparative harm" and "absolute harm".
28.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 8 August 2008 16:25
	Pleasantries + argues for boycotting meeting since results of collaborations with industry are usually not satisfactory. Meet with other NGOs to dissuade from meeting with industry.
29.	Subject: Re:We have lift off! Topic: 1: Harm reduction

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	Author: Julian Stanhope Date: 9 August 2008 07:37
	Thanks Student E -- it was great to have you with us & to catch up. There has been a long history of industry attempts to schmooze health groups and equally of health groups refusing to have anything to do with industry when the engagement is at the behest of industry, publicised by it and generally designed to "appropriate" and control the agenda. But here we have the liklihood that government will mandate that consultation with the industry. After all, it will be the industry who will be affected by any policy that emerges, so it's understandable that the affected industry is asked to be a part of the consultation. So .. what might be the consequences of all health groups boycotting such a process? Any downsides?
	Julian
30.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Caroline Date: 9 August 2008 14:31
	Re. Engaging with the tobacco industry on such committees:
	Does engaging with the tobacco industry lend credibility to their cause? And how will this impact on the organisations on the committee (esp, coming from the point of view of NGO organisations)? It could be assumed that the tobacco industry will use such collaborative processes as much as possible to their benefit!
	However, declining the invitation to the committee means that your organisation is not at the table to participate in debate/discussions, which may allow the tobacco industry a free run at the issue.
	Caroline
31.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 06:57
	NGOs can still influence policy in Canadian context, even if not meeting with industry.
32.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Student D Date: 9 August 2008 19:55
	Against NGOs boycotting meeting – to do so would be autocratic.
33.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:00
	Describes how NGOs can still influence policy in Canadian context.
34.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ADIT Date: 10 August 2008 09:59
	Hello everyone,
	I must say that I certainly echo the sentiments shared by the rest of the discussion group. Not willing to participate and show some sort of initiative would be detrimental to one's organisation, and against the overall "war" against the tobacco industry. I can certainly understand why some health

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	groups might want to boycott this process/meeting altogether. Since the industry has a marked reputation for manipulation and deceptiveness.
	But I think one of the key components to remember in this scenario is that the tobacco industry has an enormous array of capital and scientific knowledge at their disposal. It would be important to meet with representatives from the tobacco industry, even if it is under false pretences.
	Not meeting with them will certainly stir up more controversy, because declining an invitation to consider possible harm reduction strategies from the organisation that "causes the harm" would seem strange, especially coming from the health sector.
	One of the five principles of the business sector is the willingness to compromise. Without compromising, even before listening to what the parties have to say would be stepping back, instead of moving forward. The overall process for **harm reduction** could and may be delayed if more than one major stakeholder refuses to participate on the issue at hand.
	Regards,
	Adit
35.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 10 August 2008 16:28
	I'm with Student E on this one - let's talk amongst ourselves first and decide where we stand on the issue of harm reduction and dissuade our colleagues to get involved in any process until we do.
	It is problematic to be involved in this sort of discussion as we don't want to be seen as being in bed with tobacco companies. Also, we don't need to be polite just for the sake of being polite. By health groups (NGOs) boycotting the process, we are sending a strong message both to the government and the media, much stronger than if we were to actually get involved I thnk. Adit mentioned it would cause controversy - but controversy of this nature can be a great thing in public health and to our advantage if we handle it skillfully! (But it does need to be handled skillfully.)
	Is it really worth our time engaging in a dialogue with the tobacco industry given we all suspect underlying motives on their part and that we might be meeting under "false pretences"? Pragmatically speaking, the chances are with the involvement of a tobacco company, we'll come out with a pretty weak set of recommendations, a bit like what seemed to happen with the FCTC given the involvement of the Japanese government.
	I don't think it's particularly autocratic to exclude tobacco companies from this sort of discussion considering the vast majority of work in tobacco control does not involve them. Do we invite tobacco companies to help us come up with the best resources to encourage people to quit even though we are directly affecting their business? We know what happens when we do! Adit also mentioned that the tobacco companies have vast resources which is true. But that in itself is not a reason to become involved with them, for similar reasons as to why we don't accept money from them to conduct scientific research.
	However...let's say this was going to go ahead anyway, without our involvement. There is the obvious downside that the government could be led up the garden path on this...but it doesn't have to be that way. Just because a health group might boycott the process, that doesn't mean that it's not possible to lobby the government directly - or indirectly using the media. I can speak from my own experience working in government that we work very closely with NGOs - sometimes we can't speak out directly about a tobacco issue because we are meant to be neutral in some sense - but that doesn't mean we don't encourage our NGO colleagues to be more forthright and vocal in their opinions. Especially to the media.
	Also, a final point. Although the government has mandated consultation with the industry - it doesn't have to go much beyond that. At the end of

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	the day a consultation can be just that - a consultation.
36.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: THERESA Date: 10 August 2008 16:58
	I also think the channels for consultation should be open - but cleverly managed.
	I am trying to think about how Government could approach this keeping in mind the business environment and skill set of tobacco companies.
	Tobacco companies have 1 disadvantage in terms of consultation. They are limited in their ability to lawfully caucus or form a coalition. Also they are competitors.
	That provides an opportunity for tobacco control organisations to work collaboratively as a coalition, without tobacco companies present and develop a united or consensus position on how, why when etc to consult with tobacco companies.
	Then representatives of tobacco control agencies could consult with tobacco companies one by one and take advantage of their competitive commercial imparatives and play them off against each other.
	The benefits of this approach:
	Tobacco control people and Govt cannot be accused of closing the door to constructive collaboration.
	Perhaps there will be information or insights of value to the tobacco control agenda.
	The consultation would not provide a forum for uncontrolled grandstanding or splitting the tobacco control organisations
	Only the best negotiators would need to be involved in meeting with tobacco companies. They would undoubtedly put forward their best dealmakers and PR people and try to outmanouvre public health people.
	more thoughts later....
	Theresa
37.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:06
	In Canadian context, tobacco companies join together to create front groups, despite supposed competition; may also e true in Australia.
38.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 11 August 2008 11:21
	Great post, Anh. Your comment about consultation verses collaboration is a good one - and indeed governments are under different obligations than NGO's.
	Alex
39.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:10
	In Canada industry consultation is usually mandated, but via administrative processes.

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40.	**Subject:** Re:We have lift off! **Topic:** 1: Harm reduction

Author: ROSEMARY **Date:** 9 August 2008 14:37

Hi everyone,

I must also say thankyou for helping to make my time in Sydney even more enjoyable. Very beautiful campus and i hope to return!

Harm reduction in a general sense refers to policies, programs, services and actions that have the effect of lowering the health, economic and social harms to individuals, populations and society that are associated with drug use.(1)

Regarding tobacco use, Stratton et al define a harm reducing product as one which has the effect of lowering the overall amount of disease and death caused by tobacco use, regardless of whether the user continues to be exposed to tobacco related toxicants through use of the product.(2)

This understanding of a harm reduced tobacco product does not require the product to be completely free of toxicants/potentially disease-causing chemicals; however, the net harm to health of the product within a population will be less than that of conventional tobacco products. This lowered level of harm can be operationally defined as a lower level of morbidity and mortality.

Embracing a harm reduction perspective therefore requires the acceptance that some level of harm caused by use of the product may remain, albeit with the expectation that the net harm will be of a considerably lower magnitude than that which results from using conventional products.

The Australian national tobacco strategy 2004-2009 includes a consideration of the role of harm reduction alongside other tobacco control measures. A stated outcome objective is to reduce continuing tobacco product users exposure to "dangerous smoke constituents", noting the potential replacement of tobacco products with medicinal/other nicotine products and the future possibility of creating tobacco products with a reduced harmfulness which is significant enough to offset compensatory behaviours, increased uptake and reduced levels of quitting. The strategy incorporates a role for further regulation of tobacco products, stating the aim of developing "a regulatory system for tobacco products (and products designed to replace tobacco products) that allows us, if feasible, to reduce overall harm associated with dependence on tobacco-delivered nicotine".(3)

As part of an agency dedicated to reducing tobacco-related harm in the community, my objectives to *reduce such harm* would be to:

• Prevent the uptake of smoking

• Promote quit attempts with the goal of smoking cessation

• Protect the community from second hand smoke

• Explore the potential of harm reduced products in my community

In receiving an invitation to nominate someone from my agency to be on a committee which has the objective of considering how to best incorporate harm reduction principles into the national tobacco control strategy, I would be cautious of tobacco industry representatives being a part of the committee in the same capacity as the government, health and scientific representatives. The tobacco industry does have a legitimate role to play in the harm reduction debate in providing the government and health community with information as to the real scientific methods that exist at present, including their limitations. This would require an openness and honesty by the tobacco companies as to the realistic current level of sophistication of their scientific techniques and products, and not simply inflated, optimistic hopes for the future. Assessments of exposure levels, toxicants etc must be conducted by independent scientists as tobacco company scientists have vested interests to present their products in the best possible light.

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	Some issues I see with David Davies apparent concern over reducing risk/harm from tobacco products and tobacco industry representatives being part of government committees on harm reduction:
	• The tobacco industry has always tried its hardest to keep up to date with tobacco control initiatives that government and health organisations are considering which have the potential to impact on their profits (e.g., tobacco industry documents provide evidence of media monitoring strategies and efforts to make contacts within governments etc) - they want to be part of the committee to keep their enemies close.
	• Tobacco industry representatives' involvement on the committee risks the issues being framed in the tobacco industry's favour.
	• The tobacco industry must have a façade of concern if they are to have a chance of having the opportunity to 'work with' governments.
	• Historically, voluntary agreements between governments and industry have been ineffective (e.g., advertising codes) and if the tobacco industry agrees with a tobacco control proposal then the measure probably wont impact cigarette sales/consumption much at all anyway – it will be difficult for a committee involving the tobacco industry to reach a consensus unless they agree to the industry's watered down/ineffective initiatives.
	I would like to ensure the government had an appropriate level of caution in working with the tobacco industry and ensure the government set the agenda.
	I will continue considering this scenario and post back later.
	Thanks,
	Rosemary.
	References:
	1. Newcombe R. The reduction of drug related harm: a conceptual framework for theory, practice and research. In: O'Hare et al, editors. The reduction of drug related harm. London: Routledge, 1992.
	2. Stratton K, Shetty P, Wallace R, Bondurant S. Clearing the smoke: the science base for tobacco harm reduction-executive summary. Tobacco Control. 2001;10:189-195.
	3. Ministerial Council on Drug Strategy. National Tobacco Stategy, 2004-2009: the strategy [homepage on the internet]. c2004 [updated 2004 Nov 1; cited 2008 Aug 9]. Available from http://www.nationaldrugstrategy.gov.au
41.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ADIT Date: 9 August 2008 16:07
	Hello everyone,
	Firstly, let me start off by saying that over the years the endless persistence and shear determination of numerous agencies worldwide (including governmental and NGO's), scientific bodies, and in particular world class academics and advocates (such as Professor Chapman,) have made considerable and profound contributions within the domain of public health, having taken on the tobacco industry head on and resurrecting public awareness by spear heading vigilant campaigns worldwide. Much has been accomplished against the tobacco industry, with many nations having leaped boundaries in terms of progress and advocacy pertaining to public health and tobacco related disease and illness. But much more is needed……to sustain "marked achievements" against the tobacco industry and certainly reduce the gap of tobacco related diseases between the

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	developed and developing nations.
	From my perspective, the speech delivered by a senior Philip Morris executive, David Davies, was not credible at all. Davies claimed that Philip Morris International, together with its affiliates has an abundance of genuine concern for reducing the harm caused by smoking. This clearly is a tale of fiction. Does David Davies really expect public health tobacco experts/advocates to be mesmerised by his sentiments of acclaimed "public health good". Within an Australian context, Davies has been quoted as saying that Philip Morris International (and Limited, i.e., it's Australian subdivision) intends to work closely with all stakeholders concerned to achieve all stated objectives, as outlined by the Draft Australian National Tobacco Strategy 2004-2009. And on the other side of the spectrum, he is quoted as having said that "we have a business goal to ensure that those adults who are buying cigarettes - conventional or in the future reduced harm - are buying our brands". Clearly the hidden agenda, as is the case with all tobacco companies, shines through.
	According to Stratton et al (2001), a product may be classified as **harm reducing** "if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants". To date, there have been numerous tobacco products on the market, having claimed to be in the potential reduced exposure products (PREP's) category. These products, such as Premier, Eclipse, and Accord (Chapman et al, 2007) are different from the conventional cigarettes in terms of individual usage and exposure. Since a fraction of revenue is spent on these *potentially harm reducing agents* by tobacco companies, in terms of research and "pleasantness of the product to be smoked", the "launch" and acceptability of such products has been very low, in fact negligible, in terms of uptake. The "standard conventional cigarette" continues to be the dominant force to reckon with, and tobacco giants spend millions advertising openly and also covertly (where advertising is banned). A major dilemma which has haunted public health tobacco advocates is the deliberate misconception by tobacco giants who have portrayed "mild" and "light" tobacco products as "safer" products from a health perspective (or should I say "tobacco perspective"). It is absolutely appalling that these companies still continue to get away with such false pretences.
	I have to say that the highlight of my reading was the "Swedish Experience" (Chapman et al 2007 & Foulds et al 2003). Clearly, the evidence coming out of Sweden speaks for itself. Snus, a form of smokeless tobacco, appears to have lower levels of toxicants, although equivalent levels of nicotine which is delivered in what is seen as a much more efficient way, as compared to conventional cigarettes. Although there are different brands of smokeless tobacco in may parts of the world, the success for Snus may be attributed to manufacturing process "style", together with a "strict and transparent" code of quality and manufacturing standards. The amazing phenomenon about the "Swedish experience" is that Snus was not a planned or orchestrated public health initiative by government agencies, rather a passive process (free flowing) that had occurred, and brought about with it significant results. With an increasing uptake of the product by the Swedish community, tobacco related disease and illnesses have drastically dropped. There appears to be conclusive evidence (based solely on Swedish studies) that the prevalence and incidence of tobacco related diseases such as lung and oral cancer, as well cardiovascular disease, has declined rapidly.
	Snus is by no means a "silver bullet". Any form of tobacco clearly presents with a certain degree of uncertainty on one's health. However, with Snus the Benefits seem to outweigh the Risk, especially for those individuals who are unable to quit smoking altogether. The best option and sensible one would be to not use any tobacco products.
	Australia is certainly a world leader in terms of tobacco advocacy and public health issues in general. As a country, it has one of the best regulatory provisions, concerning smoking. Advertising is strictly prohibited and there are numerous anti-smoking campaigns in the media to encourage smokers to quit and deter individuals from having to start smoking.
	My objective along with my strategy would be to uplift the current ban on smokeless tobacco and re-introduce it into Australia. This would

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	certainly involve various stakeholders to be summoned to the 'round table', including the main "player", the tobacco industry. Coming up with an effective harm strategy which complements existing provisional regulatory laws would indeed be a difficult and complex process. Other objectives as outlined by the Draft Australian National Tobacco Strategy would have to be; 1.) to prevent the uptake of smoking; 2.) to encourage and assist as many smokers as possible to quit as soon as possible; 3.) to eliminate ETS (environmental tobacco smoke) exposure among non-smokers; 4.) to reduce the harm caused by use and dependence on tobacco and nicotine among all social groups. Having said that, this strategy will not include any advertising what so ever. If advertising were permitted again in Australia, this would serve as a "window of opportunity" for tobacco giants who would certainly use any means whatsoever at their disposal to market their brand name. As mentioned by Chapman et al 2007, we wouldn't want to contradict ourselves by advertising for against smoking and advertising for smoking at different time slots. Hence I would not compromise when it comes to advertising and believe that the distribution of Low Nitrosamine Smokeless Tobacco (LNST) could be achieved gradually. One idea that comes to mind would be to distribute LNST products such as Snus to all licensed outlets and retailers who sell tobacco products and encourage them to inform their customers about PREP's such as Snus. Also incentives could be introduced to entice smokers to try out the new product. If anything, history has shown us that much has been accomplished through "trial and error" methods. Although culture has been implicated as a barrier for the introduction of a product such as Snus, I believe that Australians would be willing to give it a "Fair Go", which happens to be one of the status quotes here in Australia. Australians are very receptive and I think that a product such as snus might be well received, much more than we would anticipate. Including Snus, there is still much needed scientific data regarding the efficacy and overall health issues relating to PREP's and falsified documents together with time constraints continue to elude genuine and concerted efforts. I THINK WE HAVE REACHED A STANDOFF!!! References: 1.) Stratton, K., Shetty, P., Wallace, R., and Bondurant, S. (2001), 'Clearing the smoke: the science base for tobacco harm reduction - executive summary.' Tobacco Control, 10.2 pp:189-195. 2.) Chapman, S., (2007), Public Health Advocacy and Tobacco Control: Making Smoking History, Oxford, Blackwell. 3.) Foulds, F., Ramstrom, L., Burke, M., and Fagerstrom, K. (2003), 'Effect of smokeless tobacco (snus) on smoking and public health in Sweden', Tobacco Control,
42.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author:Andrea Date: 10 August 2008 15:09 Hi all, I think it is important for health groups to participate in such committees despite representation from the tobacco industry. Surely, open communication and dialogue between all tobacco control groups, even those who have a vested commercial interest, need to be included in the process. The resources of the industry may even be useful when it comes to the research and development of harm reduction products.

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	Government and NGO's simply don't have the funds to carry out extensive biomedical research and perhaps industry research could positively contribute to tobacco control and lead to improvements in public health. The research of course, would need to be peer reviewed (and the process would need to be reliable and honest) and be published for general consideration, to ensure that the results were not skewed or that the public health message was confused (BMJ editorial by Christopher J Proctor 1998, 'Tobacco industry research: collaboration, not confrontation, is the best approach', available at http://www.bmj.com/cgi/content/full/317/7154/333.
	I'd be interested if others think that this might be a way for the 'good guys' of tobacco control, to use the resources of the tobacco industry, to accelerate research and development , and help improve public health.
	Cheers,
	Andrea
43.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 07:41
	No incentives for industry to share their research, and their research is biased in any case.
44.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: THERESA Date: 10 August 2008 17:51
	Regarding the credibility of Davies' statement - I thought it might be interesting to try to decode it from a business perspective.
	I have analysed it using of one of the key frameworks of competitive business strategy – Porter's five forces – in order to show the benefits for Philip Morris of the corporate position enunciated by Davies. I'm trying to analyse harm reduction from inside a tobacco company commercial strategists perspective.
	The threat of new companies selling cigarettes entering the Australian market is low, mainly because of the tobacco control agenda and Government regulation. This protects Philip Morris's profit and would be something they would want government to maintain. They would want to be close to government to ensure the market is never opened up to new companies.
	However the threat of new substitute products is high (eg NRT, Snus, other PREPs). These new products could potentially be priced differently with lower government taxes and lower prices to encourage use. They would take market share and profit from the traditional cigarette product lines. Philip Morris (PM) would want the Government to limit the number of competitors in any substitutable product lines and are probably hoping to gain an advantage by finding out before the other companies whether to invest in particular new products and getting into the new market early.
	The competition between tobacco companies is high, given a shrinking market and the need for profit growth. This means the stakes are high and PM is trying to make competitors seem less ethical in the public relations domain so PM is a preferred company to be associated with government.
	The bargaining power of tobacco suppliers is probably low given cultivation in developing countries, dependence on a cash crop and the scale of cigarette companies. This means costs of raw materials will stay low as long as there are plenty of cultivators. If farmers start pulling out of tobacco because they think there is less future in it, the costs of the raw materials of cigarettes that PM has to pay will increase. PM need to influence government to endorse new products so they can convince cultivators it is worth staying in tobacco so raw materials will stay cheap and profits will not be eroded by tobacco being more difficult and more expensive to buy.
	The bargaining power of tobacco consumers is low, given addiction, but by proxy, governments as advocates of consumers and regulators of the

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	commercial context have high bargaining power. This includes the power to enable substitute products which could transform the distribution of market share and therefore profit. PM will also want to have more access to government to delay further tobacco control inroads into prevention or quitting as these give smokers and potential smokers more power to NOT buy the product and spend their money on something else. Hope you find this angle of analysis interesting. References Chapman (1997). Public health advocacy and tobacco control: making smoking history. Blackwell Publishing: Oxford. Davies, D (2005) The politics of harm reduction: A perspective on public policy approaches to a controversial industry and product (Speech to National Press Club) http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf accessed 10/8/08 Ministerial Council on Drug Strategy. National Tobacco Stategy, 2004-2009: the strategy [homepage on the internet]. c2004 [updated 2004 Nov 1; cited 2008 Aug 9]. http://www.nationaldrugstrategy.gov.au accessed 10/8/08 Myers, M (2003). Beware the rooster: smokeless tobacco companies who claim they want to help.Tobacco Control (12): 342 Porter M.E. 1980, Competitive Strategy: Techniques for Analyzing Industries and Competitors, Free Press, New York. Pyne, C (2005) Harm reduction a positive step (Media Release) http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf accessed 10/8/08 Stratton, K., Shetty, P., Wallace, R & Bondurant, S. (2001). Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tobacco control (10): 189-195.
45.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: STUDENT E Date: 12 August 2008 07:51 Tobacco companies will market both snus and cigarettes under their brand; snus is subsidised so companies have an interest in keeping cigarettes going.
46.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: ALEXANDRA WALSH Date: 11 August 2008 11:09 Hi Adit, I'm filling in for Julian as the moderator this week while he is away in Melbourne. I was interested in your comments about how snus would be distributed and promoted to smokers once it was reintroduced. Do you envision the federal government controlling snus distribution then as opposed to the tobacco companies? Would cigarettes then need to be as tightly regulated too? Alex
47.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: ADIT Date: 12 August 2008 11:54 Hi Alex,

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	Regarding your first question, "Do I think that government or the tobacco industry should control Snus distribution?"
	Well, I certainly wouldn't be obliged to allow the tobacco industry to control Snus distribution here in Australia, should that avenue be explored in the near future. As already mentioned by myself and numerous other students, tobacco companies are desperately trying to "get around" current legislature which includes having banned all forms of tobacco advertising in Australia. I therefore think that should the avenue of smokeless tobacco be explored and re-introduced in Australia, that government intervention (both at the State and Federal level) would be more appropriate. Governments need to "pick up their pace" concerning a product such as Snus and this product would definitely need to be regulated through a statutory legislative framework.
	This brings me to your next question. "Would cigarettes need to be as tightly regulated too?".
	Yes, cigarettes would have to be tightly regulated as well. Advertising would "turn back the hands of time" , if allowed. Individuals interpret, comprehend and react differently to what they see and hear. So a major dilemma would be that mixed signals may be conveyed to the public, and we may have increased rates of smoking, whereby non-smokers would return to smoking and the young and elderly might also be lured into taking up smoking.
	Therefore I suggest that both conventional cigarettes and Snus should be tightly regulated and that the introduction of Snus should incorporate a "passive approach", rather than a conventional approach which would include advertising. One idea that I proposed in my early posting was that all outlets and retailers of tobacco products introduce Snus to their regular smokers. This concept could also extent to pharmacies, as mentioned by others. To prevent dual uptake of cigarette usage and Snus, Chapman et al (2005) proposes an idea of having to license all smokers. Therefore, this system could work like a "prescription medication" system, whereby smokers would have to "renew" their prescriptions every six months or perhaps annually. This system could allow patients to have a licence for both cigarettes and Snus, BUT purchasing should be restricted to only one product at a time to prevent dual usage. And after a trial period of, lets say three to months, smokers would then have, under regulatory provisions, hand in the licence of the product they wish to discontinue and retain the licence of the product they choose to use. This seems pretty farfetched and indeed a long short, but if smokers have genuine concerns about their health, and are unable to quit smoking altogether, then it is certainly worth a ''trial and error'' run.
	Regards,
	Adit
	References:
	S. Chapman & J.Liberman (2005), 'Ensuring smokers are adequately informed:reflections on consumer rights, manufacturer responsibilites, and policy implications, Tobacco Control,14.
48.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: CYNTHIA Date: 14 August 2008 11:26
	I definitely agree with Adit, conventional cigarettes and Snus should equivalently be tightly regulated. If snus requires a script but cigarettes don't it is likely that individuals who are trying to quit will just buy the easier cigarettes. ABS Statistics reveal that smoking rates are higher for individuals with a low socioeconomic status and also for Australians living rurally (1). These facts need to be taken into account when regulating products. It is unlikely that people who live rurally will be able to access a doctor to write a script quarterly for snus, and likewise for cigarettes (which is a good

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	thing for cigarettes because only those who a really addicted will make the effort). Also, if snus is solely put on prescription it is unlikely that smokers of low socio economic status will want to/ be able to budget for a $60 GP fee, most likely forgetting about their quitting attempts and continue smoking over the counter cigarettes. I do agree with Chapman 's concept of licensing all smokers, a system were smokers could renew their license annually (2). Another concept that I believe may work to monitor the amount of snus and cigarettes being bought daily is a state wide (or nation wide) computer network through pharmacies. I know when you purchase specific over the counter drugs at pharmacies your license number and drug being purchased is recorded into a state wide computer system (accessed only with the pharmacists ID number), if you have purchased that drug with-in the last 24 hours with in your state the pharmacist is alerted through the system and the sale won't proceed (depending on the drug and circumstances). If snus and cigarettes were solely sold at pharmacies this system may work as a reliable form of monitoring. Regards, Cynthia References: 1. Australian Bureau of Statistics, Tobacco Smoking in Australia: A Snapshot, 2004-05. http://www.abs.gov.au/ausstats/abs@.nsf/mf/4831.0.55.001 2. S. Chapman & J. Liberman (2005), 'Ensuring smokers are adequately informed: reflections on consumer rights, manufacturer responsibilities, and policy implications, Tobacco Control, 14.
49.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author: THERESA Date: 11 August 2008 21:13 What should be our objectives in relation to joining a *harm reduction* committee or embarking on a *harm reduction* program? I would firstly define harm reduction - To paraphrase the definition of harm reduction given in Stratton et al, it refers to measures that reduce the negative health results associated with tobacco (mortality and morbidity) in circumstances where exposure to tobacco and the associated health risks is not eliminated. I would next classify tobacco control measures into two types : 1 Elimination measures : those tobacco control measures which eliminate exposure to tobacco such as preventing the uptake of smoking, increasing the rate of successful cessation and protecting the community from secondhand smoke; and 2 Harm reduction measures : those tobacco control measures which reduce the potential for harm to those who continue to be exposed to tobacco smoke. My suggested objective for a harm reduction strategy would be : To complement elimination tobacco control measures with harm reduction measures without eroding the potential total effectiveness of the total set of tobacco control measures. That means, the strategy needs to recognise that elimination measures have a higher risk reduction potential and that a substitution of a harm minimisation measure for an elimination measure will reduce the net population health benefit of the tobacco control strategy. Consequently, the

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	priority of the strategy should be to maximise the coverage and effectiveness of elimination measures. A secondary strategic goal should be to implement harm minimisation strategies where elimination strategies are not yet effective as long as there is no evidence that the **harm reduction** strategies are eroding the effectiveness of elimination strategies and reducing the net risk reduction at population level.
	References
	Chapman (1997). Public health advocacy and tobacco control: making smoking history. Blackwell Publishing: Oxford.
	Davies, D (2005) The politics of harm reduction: A perspective on public policy approaches to a controversial industry and product (Speech to National Press Club)
	http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf accessed 10/8/08
	Ministerial Council on Drug Strategy. National Tobacco Strategy, 2004-2009: the strategy [homepage on the internet]. c2004 [updated 2004 Nov 1; cited 2008 Aug 9]. http://www.nationaldrugstrategy.gov.au accessed 10/8/08
	Myers, M (2003). Beware the rooster: smokeless tobacco companies who claim they want to help.Tobacco Control (12): 342
	Porter M.E. 1980, Competitive Strategy: Techniques for Analyzing Industries and Competitors, Free Press, New York.
	Pyne, C (2005) Harm reduction a positive step (Media Release) http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf accessed 10/8/08
	Stratton, K., Shetty, P., Wallace, R & Bondurant, S. (2001). Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tobacco control (10): 189-195.
50.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: LEO Date: 10 August 2008 17:17
	The concept of trying to reduce the health damage caused by tobacco is not new. The strategy adopted by the tobacco industry has consisted mainly of a series of attempts to obtain failures and commercialize products with less damaging products (modification of the product), along with much more strenuous attempts to minimize the perception that their products are really dangerous.
	Harm reduction by health advocates is a strategy adopted to reduce the adverse health effects of tobacco use in smokers. Since most smokers are unable or unwilling to stop smoking completely in the near future, consideration was given to strategies designed to obtain a **harm reduction**. Stratton et al, states that "a product is **reducing harm** if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants."
	It is clearly for a long time that the tobacco industry does not provide reliable information about the relative danger of their products, and many more that are necessary rules and more information.
	Among the various policy options suggested for tobacco **harm reduction** there are two different.
	1. To impose the industry a gradual reduction in the amount of nicotine delivered by its products, until you reach a point where the doses provided no longer has an effect of reinforcing the desire to smoke. The primary objective is to finish gradually addiction to tobacco caused by nicotine. However, it would be particularly difficult to avoid that "legal" cigarettes with ultra low nicotine content were supplanted by contraband cigarettes with high nicotine content (which also allegedly evaded taxes in the process of contraband.

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	2. To impose the industry a gradual reduction in the amount of harmful substances supplied by their products (without substantially changing the amount of nicotine), until it reach a point where it no longer supplying harmful substances detectable. The primary objective in this case is to stop the most damaging consequences for the health of nicotine addiction.
	References
	Stratton, Et al, Clearing the smoke: the science base for tobacco harm reduction. Tob. Control 2001; 10:189-195
	Chapter 4 of Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.
	Tobacco control website:
51.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 11 August 2008 11:17
	Hi Leo,
	Thanks for your comments - it is important to keep in mind that most smokers (80% +) want to quit and many do so successfully every year, there are more exsmokers in Australia than smokers.
	Regarding your option 2 - what evidence is there that this is possible? I think it is every tobacco industry executive's dream that a harmless, yet addictive cigarette could be manufactured and sold profitably.
	Despite their track record the industry does not actively want to kill their best customers, it's that they cannot make a product that competes with the conventional, deadly cigarette.
	Alex
52.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: LEO Date: 11 August 2008 21:06
	Hi Alex.
	According to Chapman (2007, p 107) "we can be assure that the company will keep on manufacturing and marketing its" bad "cigarettes, stimulating demand for them and resisting any tobacco control policies that would see people abandon or reduce tobacco use" this statement clearly highlights that tobacco industry the tobacco industry is not planning to produce less harmful cigarettes. I think that the tobacco industry is afraid to produce products which are not to the liking of smokers and therefore may lose profits generated by the rejection of the new product.
53.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: CYNTHIA Date: 11 August 2008 11:32
	Hi everyone,
	I would like to consider Julian 's questions and scenario and also comment on a couple of points raised in previous postings.
	The principle of **harm reduction**, has been the stated aim of the Australian Federal Government's National Drug Strategic Framework since the mid-1980s (1). Tobacco **harm reduction** can be defined as, 'minimization of the net damage to health associated with use of tobacco products.' These products include constituents of tobacco, and other substitutes for tobacco products.

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	Pillars of tobacco control in the Australian National Tobacco Strategy 2004-2009 included,
	1- Prevention of initiation
	2- Promotion and assistance with cessation
	3- Protection form environmental tobacco smoke
	4- ***Harm reduction*** (1).
	Governments in Australia have always been strong advocates of pillars one and two, preventing of initiation and encouraging smokers to quit (1). The third pillar, to protect non-smokers from environmental tobacco smoke has been addressed more recently with the introduction of numerous smoking bans placed in public places such as pubs and restaurants (1). The forth pillar, harm reduction is a more recent issue being considered and regulated by the Australian governments and industry.
	A speech delivered by David Davies regarding the involvement of Philip Morris (Tobacco company) in the reduction of tobacco harm was received well by the parliamentary secretary for health, Chris Pyne. He states that the "Australian Government welcomes the opportunity for collaboration between government and industry to help achieve the objectives of the National Tobacco Strategy" (2). He also states, with regards to the fourth pillar, "The government welcomes scientific exploration into the creation of a product that might minimise the harmful effects of tobacco smoke" (2).
	Products such as modified conventional cigarettes, pseudo-cigarettes, smokeless tobacco, novel tobacco, nicotine products and nicotine pharmaceuticals are examples of ***harm reduction*** techniques (3). However it is still uncertain whether these products assists with an individual complete cessation of tobacco use or hinders their ability to quit. I agree that overall it is beneficial for governments to work with the tobacco industry, I do believe however that the tobacco industry are getting a lot out of the partnership. They are able to manipulate the government and get a head start in the development of new products meeting the governments harm reduction requirements. I personally don't believe that the introduction of many of these harm reducing techniques into the Australian National Tobacco Strategy will decrease tobacco use. Snus for example, there is no evidence that once introduced into Australia it won't increase tobacco use.
	Cynthia
	1. David Davies, Senior Vice President, Corporate Affairs / National Press Club, Canberra / 23 March 2005. http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf
	2. Christopher Pyne MP, Parliamentary Secretary to the Minister for Health and Ageing, 23 March 2005. http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf
	3. Kathleen Stratton, Padma Shetty, Student EWallace, and Stuart Bondurant. Clearing the smoke: the science base for tobacco harm reduction executive summary. Tob. Control 2001; 10:189-195.
54.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ADIT Date: 11 August 2008 12:35
	Hi all,
	Just to reflect on what has already been discussed thus far. A large proportion of the discussion group has reached some sort of consensus

	regarding their viewpoint of whether to accept or decline any invitation to be part of a national planning committee concerning tobacco control and harm reduction strategies.
	Many agree that an open-minded approach would be reasonable and that we should accept an invitation to "lay our cards on the table" , despite the tainted and tarnished image of the notorious tobacco industry. Anh mentioned that she agrees with Student E and would boycott the invitation process altogether. Although I respect and appreciate their viewpoint, I don't believe that boycotting (in this scenario) would have any major impact, both in the interim and distant future.
	Even if you decide on boycotting, how long are you (and your organisation) going to boycott for? If anything, what I have learnt from the workshop, and indeed together with an extensive literature review is that it takes decades upon decades to achieve any positive outcomes, when working with/against the tobacco industry. From my standpoint, initial boycotting may not be a viable option and should be a last alternative. Boycotting is certainly not going to have any immediate or profound effect on the overall process, both in the short and long term running. Don't get me wrong, I certainly realise the magnitude of effect that NGO's and other institutional bodies have. They are indeed powerful organisations with vast resources and impressive networks. As a result they can be seen as "socially astute" enterprises that have considerable influence on government and decision making processes. But for arguments sake, lets say that your organisation together with other NGO's do boycott this process. And even if government does feel the pressure and "heat" from these organisations, then what happens next? Like I have stated, it has taken years of negotiation to reach this point, where we have "decent" legislative provisions (well in Australia anyway) in place. I think that this has been achieved through countless meetings and persistent determination, not so much on the boycotting front (I could be wrong).
	People are always going to be divided on opinion regarding a specific issue. Even when an organisation (such as an NGO) is truly dedicated to the uplift and sustainability of public health/good, their intentions may be strongly perceived in a negative light, and scrutinised by society at large. So in this particular scenario, "Sleeping with the Enemy" may not necessarily be a bad thing - as I have mentioned - it takes years of skilful negotiation and tactful strategic initiatives to achieve the desired outcomes for a better public health policy implementation and execution strategy.
	And lastly, as I mentioned in my previous posting, we don't need more controversy. We have the facts. We know the pro's and con's of the issue on hand. Stirring up more controversy on a topic that has been flanked with it for the last 15/20 years is pointless. The tobacco industry has taken "everything" that has been 'hurdled' towards them. So controversy or no controversy, it seems clear that they are still calling the shots.
	Therefore it is imperative that we as health professional groups strive forward and be part of the harm reduction strategic process. As Andrea has duly pointed out, much can be derived from the tobacco industry, in terms of research, which would have to be thoroughly peer reviewed by scientific and other collaborative agencies. So yes, concerning the issue of overall public good and tobacco related ill health, we should keep our options open, but that does not mean that we have to "bow" down to the tobacco industry or stoop to their level!!!
	Regards,
	Adit
55.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Caroline Date: 11 August 2008 16:00
	Dear Adit,
	I feel compelled to respond to some of your comments! (and possibly the need to agree to disagree!)

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	"it takes years of skilful negotiation and tactful strategic initiatives to achieve the desired outcomes for a better public health policy implementation and execution strategy" –

The point I want to make is that huge inroads have been made over the last 25 years or so in tobacco control, without the need to be working directly with the tobacco industry on any matters – especially from the point of view of a NGO. NGO organisations have much more to consider, including the mission, aims and objectives and values of the organisation, the public reputation of the organisation (especially important when these types of organisations are relying on community support through fundraising and donations, and also external grant tendering process to fund their work) and existing organisational policies that relate to dealings with the tobacco industry – eg, The organisation shall not deal with any person, company or other entity receiving money or revenues from the tobacco industry (whether directly or indirectly) or having arrangements or dealings with the tobacco industry (whether directly or indirectly) that may actually, potentially or perceivably compromise tobacco control initiatives and the mission of the organisation." In addition, no NGO would want a tobacco company to leverage off their hard earned authoritative reputation and eminence within the community – the last thing you want is for the tobacco industry to use your brand as a way to enhance their profile, which they would no doubt to if given half the chance.

In terms of the government needing to consult with the industry, there are ways of 'consulting' with the industry, without actively having them involved collaboratively with a committee such as the scenario suggests. Maybe part of the process here is for NGOs to identify and suggest how these processes could be undertaken. This was raised in an interesting post made earlier by *Shelia* which I enjoyed reading!

"So controversy or no controversy, it seems clear that they (tobacco industry) are still calling the shots." –

The tobacco industry has a very long history of misconduct, deception, denial and dishonesty about the health effects of their products – We need to not forget this long past history! I think they are desperately trying to find ways to keep their businesses increasingly profitable in an era (in this country anyway) of declining smoking prevalence and denormalisation of smoking. Martin, Warner & Lantz (2004) note that 'in every case where they (the tobacco industry) have been involved, their only purpose is to retard progress'. The same article also notes that 'the companies are interested in the dialogue so that they can rebuild their **tarnished** images' and are '**desperately** seeking some sort of acceptability as a legitimate business'.

The article by Martin, Warner & Lantz (2004) also suggests that the industry possesses far greater knowledge about tobacco product construction and yields than do non-industry scientists. And whilst those interviewed from the tobacco industry felt that collaboration was essential, tobacco control leaders and non industry scientists expressed scepticism, citing decades of industry deception. Most tobacco control leaders felt that regulation of the industry, not collaboration with it, was a more sensible approach to establishing a framework for harm reduced product development.

What we also need to think about is that the very same industry that is pushing harm reduction agenda in countries such as Australia with strong tobacco control measures is aggressively promoting its addictive, lethal products elsewhere in the world (usually to the most disadvantaged and vulnerable). So far as when it will be acceptable to deal directly with the tobacco industry, this cannot be until the abuses stop. It has taken decades to find out about the tobacco industries bad practices and, even if it were to embrace genuine change now, it would take many years, and a system of transparency and independent regulation, before the public health community could trust it (King, 2006).

Martin, Warner & Lantz (2004) conclude that the complexity of the harm reduction issue – how to think about it and what to do about it – ranks it |

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	among the most perplexing developments in the history of tobacco and health! I am very much enjoying reading everyone's posts and thoughts on the issue/s raised and will check back soon.
	Cheers.
	Caroline
	References:
	King, J. (2006) Accepting tobacco industry money for research: has anything changed now that harm reduction is on the agenda? Addiction; 101; 1067 – 1069.
	Martin, E.G., Warner, K.E. & Lantz, P.M. (2004) Tobacco harm reduction: what do the experts think. Tob. Control; 13; 123-128.
56.	Subject: How to use tobacco expertise Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 08:05
	In Canada, reduced ignition propensity cigarettes (R.I. P. cigarettes) were mandated – an example of industry knowledge being used in pyblic interest.
57.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 11 August 2008 18:26
	Hi Adit,
	Just to address a couple of things you've raised.
	It's not that we're not being "open minded" if we don't want to sit at the table. Just to be clear, I said that we should boycott the process until we decide where we stand on harm reduction. Do we think it's worthwhile, or don't we? We don't have all the facts actually - tobacco is different to injecting drug use and sexual health, where the merits of harm reduction are well documented. Julian is right in saying that harm reduction is a real wedge issue in the tobacco control community - that's being played out right here in our class :)
	Given everything I've read about harm reduction now, the same sources that we've all been looking at, I'm beginning to feel like harm reduction a bit of red herring in Australia, and that we should be concentrating our efforts on other strategies until we get to a level of say 10% prevalence.
	As I suggested in another post, if we really want to get somewhere on the issue of harm reduction, we should work with the vulnerable populations in our society that might experience the most benefit. Do we think that tobacco companies would be happy to commit resources to work with us with those populations (eg. rural, Indigenous, mentally ill, inmates) given that they will get less bang for their buck?
58.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: THERESA Date: 11 August 2008 21:32
	I think you raise a good point there Anh about targeting harm reduction only to population segments where there is evidence that exposure elimination interventions aren't getting traction and where harm minimisation would at least gain some risk reduction instead of corroding the effectiveness of prevention and cessation measures. That should be the aim of tobacco control programs.
	However, I rather doubt tobacco companies are interested in highly focussed marketing into specific quarantined communities. They are looking for a way to maximise their market share and profits from their large investment in the tobacco supply chain. The people at the top of tobacco

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	companies lose their jobs if they cannot deliver growth.
	I am developing the view that Government should consult in a controlled way with the tobacco companies in order to keep the enemy close. But it is important to recognise that the goals of tobacco companies always conflict with reduction in the tobacco market - regardless of the spin they present.
	cheers
	Theresa
59.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT E Date: 12 August 2008 08:10
	Ponders whether there are ways to use the market to give companies an incentive to abandon cigarettes.
60.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Andrea Date: 11 August 2008 12:47
	In response to Alex's question about potential government control of Snus distribution, rather than distribution by tobacco companies – I think that there may be tremendous value in this form of distribution. Lifting the tobacco advertising ban, would have dire consequences for public health and reverse years of tobacco control advocacy, therefore alternative avenues need to be explored. Perhaps the government could look at classifying smokeless tobacco products (such as Snus), as a form of treatment for tobacco addiction, much like methadone for heroine addiction. Channels for licensed distribution already exist for products like nicotine gum and inhalers, through pharmacies. Perhaps these outlets could distribute Snus. Pharmacists could 'value-add', by providing quit smoking advice to 'patients'.
61.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 12 August 2008 08:51
	Yes, government control of Snus distribution is a potentially good solution. It could be sold in plain boxes like prescription drugs which will protect our advertising standards. If we really feel that it is worthwhile to use snus as a treatment for people to get off cigarettes then it could be trialled for a while, to see what the uptake is like. I would still propose trialling this method with particular sub-populations in our community.
	The rhetoric that they use - tobacco companies and lobbyists - is that smokeless tobacco is "harm reduction" which obviously has a clinical definition as we've all been discussing. Therefore, they cannot complain if we go down this route of distribution as that's the double-edged sword they've been walking on.
62.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ROSEMARY Date: 14 August 2008 11:33
	Just a side note: distributing Snus in a controlled way in plain boxes would only be meaningful if generic packaging of cigarettes was implemented (i.e., all aspects of the packaging regulated to the specifications of tobacco control experts).
63.	Subject: Smokeless tobacco action group Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 11 August 2008 14:00
	I thought you may be interested in the harm reduction measures being put forward by a group of Australian smokeless tobacco users. Here is their

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	website:
	http://www.smokeless.com.au/
	and a summary of their HR position that was posted on an economics blog:
	As President of the Smokeless Tobacco Action Group (STAG) I wish to introduce our organisation and in doing so communicate our goals. We established STAG in 1998 with the intention of representing US and some Swedish smokeless tobacco (S/T) users in an effort to achieve the following goals:
	For tobacco control experts to recognise that western smokeless tobacco is a harm Reduction measure for smokers who cannot quit;
	For Australian Governments to reverse legislation banning the import and sale of S/T products; and for S/T products to be taxed fairly as a low risk tobacco product.
	As you can imagine, this has been a prolonged and sometimes frustrating endeavour but we are spurred on by the knowledge of the following facts.
	There are up to 20,000 smokeless tobacco users in Australia.
	Because of the recent customs tariff increase (from $2.33 to $290.74 per kilo) most S/T users are now smoking.
	World respected research indicates that moist snuff (US and Swedish) is 98% safer than smoking.
	Our first step is to get Customs and Treasury to drop the customs tariff down to a reasonable level taking into consideration (1) the extra water content in moist snuff making it much heavier than smoking tobacco and (2) S/T being 98% safer than smoking tobacco.
	6 months ago most politicians had no idea what snuff was and the hardest thing is to get them to read the research material we send them.
	Having said that, we do have some Federal and State politicians who have indicated their support. Please let me know if you have any specific queries that I can help you with.
	Regards
	David Fullarton
64.	Subject: Re:Smokeless tobacco action group Topic: 1: Harm reduction
	Author:Anh Date: 11 August 2008 17:54
	This is very interesting. There are lots of issues here. Like the bit about S/T should be "taxed fairly as a low risk tobacco product". Should we tax tobacco products on the basis of potential harm? In which case, snus should certainly be much cheaper than it now is. That part of their argument has some merit I think.
	(By the way, it's not just snus that's been affected by these increases - waterpipe tobacco, which is not safer than cigarettes, has been pretty cheap up until recently too but now the whole weight is being included (molasses, additives etc) and not just tobacco content. However that's fair enough because part of the allure of waterpipe tobacco IS that extra stuff.)
	However, this group want snus to be introduced for sale and that is fraught with concern, as we've all been discussing. We don't want to degrade the strict advertising standards we've fought so hard for, plus we know there is the issue of dual use, doubts about "harm reduction" etc. Especially seeing as we are going smoke-free everywhere in Australia.

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	Based on Victorian estimates, they say there are up to 20,000 smokeless tobacco users - would I be right in assuming that these are NOT all snus users, and this includes more dangerous oral tobacco too?
	Regardless, I feel this is not a huge number from a population health perspective. Do we need to relax our tobacco laws which protect the majority to accomodate the needs of a few? What do others think?
	Another point is that they claim that people are now switching to smoking because of these price increases - well, I would need to see much more evidence about that - I just had a look on their website and can't see anything to back that up? But regardless, if people are now switching to cigarettes - that indicates that they have a serious addiction to nicotine, and I'm not so sure we should be propping up an addiction of this kind.
65.	Subject: Re:Smokeless tobacco action group Topic: 1: Harm reduction
	Author: MELISSA Date: 13 August 2008 23:13
	It is a very interesting website, to say the least!!!! Lots of controversial statements there!
	Under the subtitle of 'Issues' the group talks about lobbying the government to relax smokeless tobacco laws. In a 'shock value' statement they report that using smokeless tobacco is '98% safer than smoking'. Not surprisingly, there is no literature to support this statement..... and I would assume that they were not just talking about snus, but about other forms of oral tobacco and nicotine products.
	Another generalised statement on the website and was previously discussed in *Shiela's* post, the apparent transition from smokeless tobacco to cigarette's because of the cost. I to cant find any literature to support this statement... but one that is nonetheless quite concerning. if people are switching to cigarettes, this in broad terms indicates a nicotine addiction (or otherwise why not just quit), going against their other statements and indicating a potential public health problem (if smokeless tobacco was to increase in popularity). I'll keep looking for some more information on this topic.
66.	Author: MINA Date: 11 August 2008 20:03
	Hi everybody,
	According to Stratton, K "a product is harm reducing if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants" (1).
	An example for such a product is snus which is widespread in Sweden, particularly among males.
	It might be difficult to promote snus as a kind of surrogate among non-Swedish smokers as the consumption of snus seems to be a "Swedish mannerism".
	In my opinion, a very important factor concerning snus is that manufacturers (Swedish Match Tobacco Company) voluntarily display the ingredients of their product and even have launched a quality standard, called the "Gothiatek standard", in which they set limits for "undesirable substances", such as nitrate, tobacco specific nitrosamines and others (2).
	This would be a desirable approach for cigarettes as well. Manufacturers should be forced to display the ingredients of all their products on the packages.
	In addition, it is clearly shown that in Sweden there has been a significant reduction in smoking among both males and females over the past 25 years, whereas the consumption of snus increased, particularly within men over the same period. Similarly, the incidence of both lung cancer in

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	men and myocardial infarction in both women and men decreased (2).
	In terms of nicotine replacement therapy one problem seems to be that it is differently regulated compared to tobacco products (2).
	I think that it would be important to have equal standards in terms of labeling for all kinds of nicotine products, both in terms of levels of nicotine and tobacco toxicants.
	According to David Davies speech, in which he said "it is tobacco smoke, not cigarette ingredients, that causes harm" (3) I wonder how to examine that without having precise information of each ingredient in cigarettes quantitatively and qualitatively.
	Cheers,
	Mina
	1 Stratton, K. Clearing the smoke: the science base for tobacco harm reduction-executive
	summary. Tobacco Control 2001; 10: 189-195
	2 Foulds, J. Effect of smokeless tobacco (snus) on smoking and public health in Sweden.
	Tobacco Control 2003; 12: 349-359
	3http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%2
67.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: THERESA Date: 11 August 2008 21:23
	Just a quick comment on Mina's point.
	Mina says : *According to David Davies speech, in which he said "it is tobacco smoke, not cigarette ingredients, that causes harm" (3) I wonder how to examine that without having precise information of each ingredient in cigarettes quantitatively and qualitatively.*
	I think this quote is an amazing example of spin. Its like saying it is bullets that cause the harm, not the gun....
	cheers
	Theresa
68.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ROSEMARY Date: 14 August 2008 11:12
	Hello,
	A few more comments from me...i cant get over the number of posts!
	Tobacco companies and tobacco industry groups (e.g., the Tobacco Institute of Australia), past and present, have regularly made submissions to government regarding proposed tobacco control initiatives (e.g., new legislation) – the government considers their point of view and in a sense this is consultation, not collaboration (This relates to Anh's post on 10 August). I believe that relevant stakeholders should be given the chance to make their opinions known to decision makers in an appropriate format, especially in a democratic society like Australia. The issue is how the information is interpreted – obviously a very critical approach must be taken when interpreting tobacco industry submissions and consultation. If the government believed the hospitality industry (and others') economic doomsday theories in submissions relating to smokefree

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	restsurants/bars/clubs/pubs then that legislation would not have been introduced – consultation with parties with obviously vested interests cannot be taken at face value.
	If the government were unwavering in their decision to include the industry in the Harm Reduction committee, perhaps there are a couple of options other than boycotting:
	• As tobacco control experts savvy on tobacco industry strategies, my agency could brief the government about the to-be-expected strategies rolled out by the tobacco industry representatives (e.g., trying to set the agenda, media strategies). Governments past (and possibly present) flexibility in watering down tobacco control policies in the face of tobacco industry opposition suggests such briefing is necessary.
	• Make a point of sitting on the committee to observe, monitor and intervene when the tobacco industry representatives are clearly (and unacceptably) acting in their own interests (e.g., in a similar manner to Professor Stanhope at the Standards Australia meeting).
	• Have a preliminary meeting with government and the committee members other than the tobacco industry representatives to set the agenda and have preliminary discussions prior to tobacco industry involvement.
	I agree with others' opinion that we should maintain a focus on and momentum for the traditional tried-and-tested tobacco control measures (e.g., mass media campaigns, increased taxes, smoke-free areas) – any move toward harm reduction would require a conscious awareness that health groups and governments were not promoting mixed messages regarding quit attempts/'every cigarette is doing you damage' vs continued use of certain 'reduced harm' tobacco products. It is also rather difficult at the present time to provide clear messages to the public (and perhaps when briefing governments) regarding possible reduced harm products when we do not have clear research evidence to say true reduced harm products exist and would be a popular alternative to traditional cigarettes in the Australian population.
	While there are no clear answers in tobacco HR today, if tobacco control/health people do not start discussions and solid work in this area we will just be delaying action that could potentially be beneficial, not just to Australia but to other nations. And if those with genuine public health interests don't progress in this area as soon as possible, then we may end up with a situation where we are 'educated' by the tobacco company scientists who have spent considerable time and money in this area.
	Thanks,
	Rosemary.
69.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: STUDENT A Date: 14 August 2008 23:20
	Steps to consider in harm reduction initiatives.
70.	Subject: We have lift off! Topic: 1: Harm reduction
	Author: KUMAR Date: 10 August 2008 21:00
	Hi everyone,
	Thank you to Andrea for getting us off to a flying start. I did post before (honestly) but it disappeared when I pressed post and it took until now to get over my frustration and do it again.
	Obviously this issue is complex and, just like economics there are many theories but they may not represent how things play out in real life. The

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	tobacco industry is suffering a lack of credibility and falling sales in many developed countries but they have not changed their aims and their revenue streams are still massive.

The issue of whether to participate is a double-edged sword. If you engage with the tobacco industry you can be sure they will try to exploit that to lend them credibility as "working alongside" government like good corporate citizens. If you refuse they will attempt to portray you as unreasonable and unwilling to work co-operatively to achieve some degree of public good.

Ultimately I think you have to engage. Firstly you have been invited to represent the National Tobacco Strategy. Secondly by boycotting the committee you lose the opportunity to have input into the committee and its recommendations, which have the potential to influence government policy. With careful planning it should still be possible to ensure that the tobacco industry continues to be portrayed as a purveyor of death and disease that fiercely opposes meaningful reform

The National Tobacco Strategy's approach to reducing tobacco-related harm is as follows:

• further use regulation to reduce the use of, exposure to, and harm associated with tobacco;

• increase promotion of Quit and Smokefree messages;

• improve the quality of, and access to, services and treatment for smokers;

• provide more useful support to parents, carers and educators helping children to develop a healthy lifestyle;

• endorse policies that prevent social alienation associated with uptake of high risk behaviours such as smoking, and advocate policies that reduce smoking as a means of addressing disadvantage;

• tailor messages and services to ensure access by disadvantaged groups; and

• obtain the information we need to fine-tune our policies and programs.

In relation to regulation I <u>fail to see</u> why the US Supreme Court ruling should be a deterrent to tight regulation of the product in Australia. I believe tobacco companies should be required to list every additive (and not just as "colouring" or "flavouring") and demonstrate compliance with maximum levels of the worst known toxins.

All marketing, as opposed to just public advertising, should be banned, including below line and duty-free advertising. Sales to minors could be significantly reduced by restriction to sales to outlets that required a licence and little incentive to put that licence at risk, such as bottle shops.

In relation to LNSTs, such as Snus, they may have a limited role in Australia, particularly in the context of current smokers who have tried unsuccessfully to quit and who still want to quit using Snus in a dependence model, such as the Methadone program for heroin addiction.

In any other context Snus may be detrimental, especially at the moment when current strategies appear to be working well. There is a risk with Snus of confusing the message and reducing interest in quitting, just as with the "mild" and "light" cigarette brands. There is also the risk of diluting the message about the addictive nature of nicotine and the uncertainty regarding long term health consequences (ie cardiovascular disease and pancreatic cancer).

Finally I think we can build on the movement that is gaining momentum in the community that environmental tobacco smoke is an assault on civil liberty. At the risk of being seen to advocate a "<u>Nanny State</u>" I see no reason why the recent ban on smoking in private cars carrying children could not be extended to private homes on the basis that the principle of forcing children to smoke who cannot make a choice is a form of assault on them. This would certainly test the water on current opinion, and even if unsuccessful would generate sufficient opposition from industry and, |

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	ironically, libertarians, to create the opportunity for robust debate and constant reinforcement of the harms associated with tobacco use.
	References:
	Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.
	Davies, D (2005) The politics of harm reduction: A perspective on public policy approaches to a controversial industry and product (Speech to National Press Club)
	http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf accessed 8/8/08
	Foulds J, Ramstrom L, Burke M, and Fagerström K. Effect of smokeless tobacco (snus) on smoking and public health in Sweden
	Tob. Control, Dec 2003; 12: 349 - 359.
	Ministerial Council on Drug Strategy. National Tobacco Stategy, 2004-2009: the strategy [homepage on the internet]. c2004 [updated 2004 Nov 1; cited 2008 Aug 9]. http://www.aodgp.gov.au/internet/main/publishing.nsf/Content/E955EA2B5D178432CA256FD30017A522/$File/tobccstrat2.pdf accessed 10/8/08
	Pyne, C (2005) Harm reduction a positive step (Media Release) http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf accessed 8/8/08
	Stratton K, Shetty P, Wallace R, and Bondurant S. Clearing the smoke: the science base for tobacco harm reduction - executive summary. Tob. Control 2001; 10:189-195.
71.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 11 August 2008 11:28
	Hi Kumar,
	Thanks for your posting - how would you manage the introduction of snus to Australia in order to avoid the pitfalls you mention?
	Alex
72.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: KUMAR Date: 12 August 2008 12:31
	Hi Alex,
	My underlying principle for introducing Snus would be not to distract from the main game in terms of resources or the public health message.
	I think the Methadone analogy is a fair one - Methadone is a powerful narcotic and by no means "safe" however it is preferable to heroin on a number of fronts.
	Similarly Snus, which has not been proven to be "safe" but is undoubtedly "safer" than smoked tobacco to the user and certainly safer and less irritant to those around them.
	Snus could be made available on prescription in the same way as Methadone for those who were currently addicted to cigarette smoking and who wanted to quit but had so far been unsuccessful.

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	Student B (cool name) has already discussed the Borland and Liberman models of whether to set up a separate agency or to work within existing models. I must admit despite the inefficiency I would set up a separate agency. The cost could be borne from funds generated by taxation of the industry.
	I would focus on the following principles:
	- no direct or indirect marketing of the product from tobacco companies to consumers
	- no incentives, including "educational meetings" for prescribers funded by the tobacco industry
	- smokers would identify themselves as having become addicted to nicotine and having unsuccessfully attempted to quit by other means;
	- interested health care workers in drug and alcohol control would obtain a licence to prescribe Snus;
	- Snus users would have follow-up to assess their on-going nicotine dependence'
	- Snus would be packaged like a pharmaceutical product with no logo and no advertising;
	- tobacco companies would not be allowed to use brand differentiating names, such as Camel Snus
	- the usual government warnings would apply - i.e. "Snus may be slightly less harmful than smoked tobacco but is still highly addictive and may cause serious long term ill health"
	We would need to ensure that there was no marketing campaign around Snus that may encourage cigarette smoking and that it did not become a gateway to smoking (viz the 33% in Sweden who progressed from Snus to cigarettes)
	Regards
	Kumar
73.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: Student B Date: 11 August 2008 22:29
	Opposes having industry reps attending, as their interest in profit is incompatible with public health; supposed harm reduction attempts have not been sincere. Industry should be consulted in other ways.
74.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: Student B Date: 11 August 2008 23:24
	Questions how reduced harm products can be regulated – possibly by prescription.
75.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: MELISSA Date: 11 August 2008 23:54
	Hi all,
	Just a quick comment on Student B's posting above. I would agree and raise concern about shopkeepers educating the general population on the benefits and risks associated with particular brands of snus. As has been reported with low compliance rates with sales of cigarettes to children (1), many shopkeepers are certainly not concerned with smoking rates or the greater public health good!! Under the counter pharmacy sales or prescription only sale from medical professionals seems like a much better option if snus is to be seriously used as a harm reduction product to

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	assist quit attempts.
	Cheers,
	Melissa
	Chapman S. Public Health Advocacy and Tobacco Control: Making Smoking History. Oxford: Blackwell, 2007.
76.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: BIRGIT Date: 12 August 2008 08:28
	Hello everyone
	David Davis in his speech is shifting the debate from "do you want a tobacco industry to what kind of industry do you want?" He is asking the government to support Phillip Morris to change their policies on tobacco control by working "collaboratively" with the tobacco industry rather than "fostering the conflict"
	Davies cleverly uses the last pillar to argue for the need not only to develop products that are less harmful to 'unwilling or those who are unable to quit smoking' (products such as smokeless cigarettes) but also to allow those individuals who choose not to quit to receive information on these products ("regulation should allow adults who choose not to quit to receive information about the availability and attributes of such products"). He is therefore asking the government to water down current controls on tobacco advertising
	(this could be a scary strategy by the tobacco industry).
	He also made a statement that "it is tobacco smoke, not cigarettes ingredients, that causes harm". He is neglecting the fact that if the addictive ingredients in cigarettes are not there, people will be able to quit without stress, but the addictive nature of cigarettes makes it hard to quit, and people will continue to smoke and cause harm to themselves and others- passive smoking.
77.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author:Anh Date: 12 August 2008 10:32
	Hi Kumar,
	There are so many postings (!) that I don't know if anyone else has also mentioned what you've said about tobacco companies should be required to list every additive (and not just as "colouring" or "flavouring") to demonstrate compliance with maximum levels of the worst known toxins.
	We have talked a lot about snus and other aspects of harm reduction, but maybe we should make more of this really important point. It's amazing how unaccountable the tobacco industry is currently - we need a strong regulatory regime that ensures that before cigarettes leave the factory door, there are product standards which entail strong harm reduction measures.
78.	Subject: Re:We have lift off! Topic: 1: Harm reduction
	Author: CYNTHIA Date: 12 August 2008 16:41
	The tobacco industry is pushing for co-operation with governments and their policy making process. They claim they want to reduce harm and advocate the last pillar (1), however unless enforced by law they do nothing on their own initiative. They can not even list every additive in their cigarettes on their packets... something as small as this will hidden from the public unless a law is enforced stating it's mandatory. It is hard to trust a company that is only trying to participate with the government to make more sales.

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	Cynthia 1. David Davies, Senior Vice President, Corporate Affairs / National Press Club, Canberra / 23 March 2005. http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf
79.	Subject: Round two... Topic: 1: Harm reduction Author: STUDENT E Date: 11 August 2008 17:11 *Discusses detail and behavioural aspects of harm reduction.*
80.	Subject: Re:Round two... Topic: 1: Harm reduction Author: STUDENT E Date: 12 August 2008 08:23 *Clarifies previous post.*
81.	Subject: Re:Round two... Topic: 1: Harm reduction Author: MELISSA Date: 12 August 2008 22:20 Hi all, Just a couple of thoughts to continue on from Student E's posting earlier today. I agree that a component of 'the addiction' of smoking is not only the nicotine but also the associated behaviours (i.e., 'lighting up', holding the cigarette, taking smoking breaks and smoking when drinking etc). And in that way, it is difficult to see that products such as snus (that don't have the same associated behaviours) would be used by a large number of smokers instead of cigarettes. In this way, is may be more beneficial to focus harm reduction strategies on methods to reduce levels of harmful chemicals in cigarettes or set maximum levels for production. It was interesting to read some of the WHO Tobacco Regulatory report's (2006) recommendations, in that <u>'maximum limits be set for specific toxic constituents per milligram nicotine with a prohibition on the sale of any brands where the levels in the smoke exceed these limits'</u>. At face value, these recommendations look great, an effective way to regulate production and ensure that all products conform to a set standard.... in effect resulting in products that are exactly the same. Additionally, the fact that tobacco companies would not be able to advertise that they were creating products with reduced toxins seems like great recommendations. However, after considering that these recommendations would mean that many current products may no longer be sold and new products would have to be developed and consumed by smokers (without any overt advertising) it has the potential to end up a full scale argument (Chapman, 2007). You can imagine how tobacco companies would fight it out with government, most likely in the full stage of the media with countless free advertising and the opportunity to convey misleading information about their new products, perhaps being less harmful or 'safer' than previously (Chapman, 2007). You have to worry what message this would send to smokers..... maybe that it is no longer necessary to quit, as a safe cigarette is being developed; Not a great thought for a country that has come so far in terms of tobacco control! I'll keep trying to ponder this idea a little more. Cheers, Melissa References

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	Chapman, S, (2007). Public health advocacy and tobacco control: making smoking history. Blackwell Publishing: Oxford.
82.	Subject: Re:Round two... Topic: 1: Harm reduction Author: KUMAR Date: 13 August 2008 21:09 Melissa, I agree - I think we should make reporting on all ingredients mandatory and in particular make tobacco companies justify levels of all intoxicants especially those that they have added and that are not by-products of tobacco combustion but there is a real danger especially in Australia where we are already doing well that the industry uses that to distract from the main game. I'm not sure though that they would get a great deal of public sympathy and therefore would probably be hard pressed to generate a lot of publicity. But government would have to frame it as less harmful and the tobacco industry would seize on the opportunity to portray compliant cigarettes as "safer" and that could really undermine efforts to get the harm message across and encourage quitting. It must be the paradox of safety that it is better long term to leave cigarettes more toxic so that more people quit. In countries where tobacco control is less developed there may be a greater benefit in reducing tobacco toxicity as that may not impact on quit rates. Kumar
83.	Subject: Re:Round two... Topic: 1: Harm reduction Author: ROSEMARY Date: 14 August 2008 10:42 Just a thought regarding setting maximum levels for certain chemicals in cigarettes and the consequence that many current products could then not be sold: Philip Morris is one of the largest tobacco companies in the world and therefore is more likely than smaller companies to have the resources to adapt to new regulations – they have the technology and may be used as the bench mark for maximum levels of toxicants etc. All tobacco companies do not have the same level of technology or are as prepared as Philip Morris have been (they have anticipated what the future of tobacco control may look like and taken steps to be prepared for it). In a situation where other tobacco companies used Philip Morris products as a benchmark, Philip Morris may become some kind of monopoly. In his speech, David Davies seeming confidence that reducts risk products can or do exist reminded me that Philip Morris' view may not represent that tobacco industry as a whole. Perhaps when regulating tobacco products we should be aware of the potential for unintended consequences like accidentally favouring one tobacco company. References Chapman, S, (2007). Public health advocacy and tobacco control: making smoking history. Blackwell Publishing: Oxford.
84.	Subject: Congratulations to all Topic: 1: Harm reduction Author: Julian Stanhope Date: 12 August 2008 06:43 Hello from freezing Melbourne, buried in [organization] research grant applications (my job is to manage disputes in the [panel].- It is hugely demanding here, which is why Alex is covering foir me thsi week. I must say I am HIGHLY impressed with the quality of the discussion that is occuring in the group. Indeed envious that I can't join in. Let me make

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	one quick contribution before I start the day.
	Along with most of my colleagues, I have actively boycotted all meetings with the tobacco industry over the years, mainly because I have seen so many examples of how the industry uses those meetings to try to pursue its own goals (which include defeating, delaying & diluting tobacco control policies). However, I have been in meetings with them on one occasion.
	This was when the government appointed Standards Australia to develop a standard for reduced ignition propensity cigarettes and the law required that all affected parties (eg: the tobacco industry) be invited to participate in the development of the standard. I reasoned that if someone like me did not attend, then the tobacco industry would have "open slather" to engage in its usual tactics without people in the room perhaps being aware of some of their more "coded" and subtle tactics. So I attended and felt very, very pleased that I had as it was evident that this was exactly what they planned to do. For example, one day 1, they actually brought along two people from a notorious spin doctoring company who whispered in their ears from the beginning until several of us challenged the rights of the spinners to be there. They also tried to get everyone in the room to agree to not speak in public about the issues involved, thus effectively gagging health and fire safety interests from doing their job with their communitiy constituents. We defeated this.
	So .. to our example here -- if we did NOT attend there may be big dangers. Remember, the first rule of politics is "be there" . So if health interests are now "inside the tent", let's not forget what those of us "outside the tent" might do in regard to tryingto influence the agenda inside
	Julian
85.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 12 August 2008 09:57
	Agreed - really great discussion.
	I'm intrigued that no one (as best as I can remember from the many postings) has taken the position that they will participate on the committee but will argue against preceding with any harm reduction. This view does exist among tobacco control stakeholders - the primary arguments usually being: lack of any evidence it is effective, nicotine addiction is in and of itself a health issue, and that "traditional" tobacco control works very well when properly funded and supported through policy.
	Thoughts?
	Alex
86.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author:Anh Date: 12 August 2008 10:24
	That's probably the position I might have eventually taken if I could see that this consultation was steamrolling ahead and was genuinely concerned that there might actually be a big impact on policy and change its direction. I don't know how easy it is to find out who would be involved - including allies - in this sort of discussion?
	It probably seems like we are making a mountain out of a molehill by refusing to participate in a discussion of this nature. But in this instance it's frustrating that the government responded so quickly - within hours - to the press club speech without consultation with key tobacco control stakeholders first.
87.	Subject: Re:Congratulations to all Topic: 1: Harm reduction

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	Author: ADIT Date: 12 August 2008 10:58 Hi all, I think that Professor Stanhope has certainly "<u>hit the nail on the head</u>". As we all well know, the tobacco industry carries a lot of "baggage and heat". That has been clearly illustrated throughout these discussions. By this I mean, there is a large degree of both formal and "informal" politics. As mentioned, the danger of not being present at a meeting could mean that you are "left out in the dark". As a consequence, if real genuine concerted efforts were to be discussed, and some leeway were to be made forward, chances are that one could be missing out on a window of opportunity that rarely comes to surface when dealing with the tobacco industry. As Professor Stanhope stated, if health related issues are being conducted "inside the tent", then it would be very difficult for those "outside of the tent" to step up to the "<u>playing field</u>" and voice opinion and possible take action on matters that are "beside them". However, whether one chooses to oblige or not, can indeed hamper the process either way. However, if all parties are willing to "<u>level the playing field</u>", and be frank with one another (despite the industry's historical reputation), then something might just become of the discussion on hand. Regards, Adit
88.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: Student B Date: 12 August 2008 11:43 *Against allowing industry to participate in harm reduction.*
89.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: KUMAR Date: 12 August 2008 11:52 Fascinating indeed - I find myself reading and replying when I'm meant to be working! I think it it reasonable to look at aspects of harm reduction as long as they don't distract time and resources from the main game - which we are currently winning. I don't think we should EVER expect tobacco companies to be reasonable or to play fairly. Clearly the Minister was primed in advance, which is precisely why we need to be part of the process so that we can get the ear of government and put to them other aspects of the argument they may not have considered before enthusiastically embracing tobacco industry spin. Similarly I don't think we should use industry resources to conduct research. If they hold the purse strings they control the direction of investigation and can easily bury reports they don't like. They will also try to district attention away from the main game. Having said that I think we should engage I don't see why we should not argue against attendance of the tobacco industry in the committee as a whole given that their objectives are so vastly different. They are likely to use the information gathered to direct their lobbying against any meaningful reform that threatens them. Rather I would suggest that the committee be of those committed to tobacco control and that the industry be invited to participate in specific elements - ie the "how"s rather than the "why"s. Kumar
90.	Subject: Re:Congratulations to all Topic: 1: Harm reduction

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	Author:Caroline Date: 12 August 2008 11:55 Very briefly, I agree with your comments Anh, and was also surprised and frustrated by the response by govt which was made so quickly after the initial speech by David Davies. Also, the issues Alex raised - of arguing against preceding with harm reduction, mostly due to lack of scientific evidence (I think I raised this in one of my earlier post and many of the articles I have read indicate this!), nicotine addiction as a health issue, and in this country "traditional" tobacco control is having a big impact on smoking prevalence - would be exactly the stance I would be looking to take at the current point in time. Hope to post more again later. Thanks,Caroline.
91.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: MELISSA Date: 12 August 2008 19:07 Its an interesting topic to consider, and I guess one where you feel as if you are continuously 'banging your head against a brick wall'. I would think that it is a good idea to participate in any discussions between government and the tobacco industry. Since the discussion is going to go ahead with or without your involvement, it is a good idea to put your opinion foward, keep the discussion on track and make sure everybody stays honest. I also agree with the issue raised by Alex earlier in this discussion, there is not yet enough scientific evidence to support changing government policies to support harm reduction. Further clinical trials and long-term studies are required within the Australian population to ensure that it is an effective method to assist quit attempts - before precious money is taken away from tobacco control projects. Looking foward to hearing further points of view and discussion. Cheers, Melissa
92.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: STUDENT E Date: 13 August 2008 10:06 *Clarification re harm reduction.*
93.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: ALEXANDRA WALSH Date: 13 August 2008 10:47 Harm reduction approaches in other health areas like illicit drug use and sexual health have been very successful - I count myself in as a supporter. But, when it comes to tobacco control and actually talking out the finer points on how best to proceed with an HR strategy, I have yet to be 100% convinced that we will get it right. On the other hand, it seems unreasonable and perhaps even unethical not to support some form of HR in tobacco control. While Sweden has reaped the benefits of a population preference for snus, this was (I feel) "accidental" harm reduction - not a strategic approach developed by tobacco control stakeholders. Is it reasonable to proceed with an HR strategy that has so many unknowns? And just as problematic, is it reasonable to do nothing just because HR is such a difficult issue?

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	Alex
94.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author:Anh Date: 13 August 2008 11:09
	I think we could make a strong argument to not proceed with HR in tobacco at this stage, given the unknowns, as we already have strategies that seem to be working effectively. We could even say that it is unethical to proceed with something which we suspect can make the problem worse.
	It's different with illicit drugs. HIV/AIDS and Hep C are relatively easily contracted - and injecting behaviour is repeated because you are profoundly addicted - whereas the harms associated with tobacco generallly occur over a much longer period of time and include many cigarettes.
	So I guess what I'm saying is that just because other areas of drug control involve harm reduction, the threats are very different so that in itself is not why we need to go down this path at this stage.
95.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author:Andrea Date: 13 August 2008 12:40
	I tend to think that it is unethical to deny smokers access to a product which causes far less health problems than cigarettes, which as many of you have already pointed out, are readily accessible. Saying that, I don't think harm reduction is a 'magic bullet'' solution, but there could be benefit in combining it with current and ongoing (and effective) tobacco control strategies.
	Perhaps if we were to reach a point where government could regulate the ingredients of cigarettes and significantly reduce the health risks associated with smoking, there may not be a need for harm reduction in the future (though I think this is unlikely!).
96.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author: THERESA Date: 13 August 2008 13:51
	I have enjoyed this discussion immensely and have generally found it easy to see the merits of opposing positions put by members of the group.
	I am gravitating towards the view that I would:
	1) Participate in the consultation to keep the enemy close and not be seen as closing the door on options
	2) never forget that the tobacco companies aims are growth in profit, growth in market share, economies of scale to bring down production and cultivation costs and reducing the power of consumers to turn away from the product (as per my analysis of their business strategy in an earlier post)
	3) not expect the tobacco companies to support any smallscale, focused or quarantined distribution of harm minimisation products - except as a foot in the door to largescale increase in sales later.
	4) be generally sceptical of harm minimisation strategies
	5) only support harm minimisation where there is evidence that they will not compete with available, less harmful alternatives to cigarettes (cessation, NRT) but will reduce the net population risk
	6) demand that harm minimisation is implemented with adequate controls to prevent "creep" away from the target population
	7) ensure evidence-based evaluation of any changes

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	cheers
	Theresa (initials)
97.	Subject: Wrapping up this discussion Topic: 1: Harm reduction
	Author: ALEXANDRA WALSH Date: 13 August 2008 14:23
	Theresa has provided a great summary position of her vision for a way forward. To conclude what has been a truly awesome discussion, please post any additional and/or alternate conclusions of your own. (Bullet points are fine.)
	Alex
98.	Subject: Re:Wrapping up this discussion Topic: 1: Harm reduction
	Author: BIRGIT Date: 13 August 2008 18:45
	As to the introduction of snus in Australia, I would be reluctant, even though there is high prevalence of snus use in Sweden and the tobacco – related mortality is the lowest in the developed world. Article by Coral, e et al states that" smokeless tobacco has failed to become established in any nation other than those with long-standing cultural traditions of use". I don't believe it could transfer to Australia. This is demonstrated from the fact that is has not transferred over close borders to adjoining countries. There is no way of knowing if we introduce this into Australia this could work so it should lean more towards of eliminating tobacco smoking altogether.
	We have to decide what is best for the whole population versus what might be good for individual-'hardened smokers". By introducing products like snus and smokeless cigarettes is it better for the public good or it will lead to people more experimenting with tobacco and ultimately cause more disease and harm in the community.
	Prevalence of smoking in Australia is declining without the use of snus due to high level of general awareness regarding the harmful effects of smoking, and heavy investments in tobacco control measures.
	Coral E. Gartner, et al. (2007) Should the Health Community Promote Smokeless Tobacco (Snus) as a Harm Reduction Measure? PloS Medicine, 4(7).
99.	Subject: Re:Wrapping up this discussion Topic: 1: Harm reduction
	Author: LEO Date: 14 August 2008 17:16
	I have learned many important aspects of harm reduction. All the opinions posted in this week were very interesting. My final remarks for this week are:
	* Harm reduction strategies are aimed at reducing the adverse health effects of tobacco use in the smokers and people who are exposed to tobacco.
	* Switching to smokeless tobacco should substantially reduce adverse effects from tobacco use, but in many countries its use is illegal.
	* The regulation of nicotine needs to be redressed urgently in favour of public health.
	Regards,
10	Subject: Re:Concluding Remarks! Topic: 1: Harm reduction

ID	Text
0	Author: ADIT Date: 13 August 2008 19:43 Hi all, This discussion on possible harm reduction strategies has been invigorating and stimulating, to say the least. I have certainly retained a wealth of knowledge pertaining to this particular subject and learnt immensely from other contributions, especially from those individuals who are actively involved against the tobacco industry on a continual basis. I think that all arguments put forward by the entire group carried a lot of weight and merit. Theresa has indeed provided us with an excellent comprehensive review of what had been shared and discussed throughout the entire week. A round of applause goes out to you all! Until the next discussion then…. Regards,
100.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: BIRGIT Date: 13 August 2008 20:16 Developing a policy on HR is complex. Some HR strategy that I think should be emphasized include • Potential reduced exposure products may not actually reduce harm. There is not enough evidence as yet. Dose response relationships suggest that lower exposure result in less harm but we can't always predict how products are used and what the likely consequences for this are. • Regulating all tobacco products as well as strict regulations on future advertising/promotion implications of PREP. • Support research (eg. animal models) of proposed PREP products and evaluation of population where PREPs are used including pilot studies in communities. • Incorporate any HR strategy with a larger tobacco control strategy-our focus should still be on reducing the number of people who take up smoking and increasing the number of those who quit (minimize tobacco related diseases and death). HR strategy should be looking at the current evidence for PREP –not only in terms of chemical composition and reduced effects of toxins but its effect on community perceptions and behaviours to tobacco (will it make smoking more socially acceptable). Planning should involve thinking what regulations to have in place so that we don't face the same problem when cigarettes were introduced.
101.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: Kumar Date: 13 August 21:16 I'm not sure that it is unethical. Especially given the lack of interest in Snus in many countries where is is available other than Sweden, the potential for undermining the current public health success of tobacco control, and the fact that it is not totally benign I still think the solution is to make it available on prescription for treatment of nicotine addiction
102.	Subject: Re:Congratulations to all Topic: 1: Harm reduction Author: MINA Date: 14 August 2008 19:49 Hi Alex

ID	**Text**
	I don't think we should argue against preceding with any harm reduction.
	Of course, most important are the first, second and third objectives of the National Tobacco Strategy (prevent uptake, encourage and assist smokers to quit and eliminate harmful exposure to tobacco smoke).
	In addition, we also have to provide a solution for smokers who don't want to quit or are dependent and therefore can't quit. In my opinion, we can't exclude them from our target groups. I agree with the fourth objective of the National Tobacco Strategy to reduce harm associated with continuing use of, and dependence on, tobacco and nicotine (1).
	I found a very interesting article written by W. A. Farone, who worked for Philip Morris USA in the late 70ies and early 80ies and finally became a consultant to the US Food and Drug Administration and now works against the tobacco industry (2).
	He argues that there was a plan to reduce the risks from active smoking over 25 years ago, based on the dose-response curve for smoke exposure (for smokers and non-smokers).
	He says that by exposure to smoke we are also exposed to a set of chemicals and "the chemical exposures from active smoking should be minimized to no greater than the levels associated with environmental tobacco smoke". He adds "that if cigarettes were made in such a way as to not facilitate deep inhalation of the smoke, the disease risk could be lowered substantially".
	He suggests to "propose the maximum allowable levels" (of toxic chemicals) " that will reasonably result in harm reduction".
	I strongly agree to define such levels of toxic chemicals in cigarettes and to force the industry through policies to declare those levels on each package.
	According to Farone "if such standards were in place the industry would no longer be able to argue that they have not been provided guidance. A smoker should not have to choose between risk levels."
	This statement reminds me of regimes of chemotherapy, which are strictly regulated and predetermined dependent on the form of cancer, the weight, height and age of the patient, concomitant diseases and other factors. The patients don't choose between chemotherapies and application rates. The same approach should be made for cigarettes with its toxic ingredients.
	Cheers,
	Mina
103.	Subject: Re:Congratulations to all Topic: 1: Harm reduction
	Author: STUDENT A Date: 14 August 2008 23:51
	Agrees with Andrea that government could regulate the ingredients of cigarettes
104.	Subject: Issues around regulation - a distraction from the main game? Topic: 1: Harm reduction
	Author: Student B Date: 12 August 2008 11:04
	Communicating information re reduced harm products to public without having industry distort the message. Regulation discussed i.e. central agency.

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
1.	Subject: We have lift off! Topic: 1: Harm reduction Author: ProfJulian Stanhope Date: 8 August 2008 07:55 Hi everyone – and welcome to the first problem of 4 we will consider. During this week we will consider the issue of harm reduction in today's tobacco control environment. First, read this speech (http://tobacco.health.usyd.edu.au/site/supersite/resources/pdfs/DDavies_%20HR_%202005.pdf) delivered by senior Philip Morris executive David Davies at the National Press Club in Canberra in March 2005. Then read the press release put out within hours by Chris Pyne MP, then secretary for health in the federal government. (see http://www.health.gov.au/internet/ministers/publishing.nsf/content/health-mediarel-yr2005-cp-pyn014.htm/$FILE/pyn014.pdf) Now....this is how we will start: Scenario: Imagine you work in an agency dedicated to reducing the harm caused by tobacco use in the community. The National Tobacco Strategy invites your agency to nominate a representative to sit on a new national planning committee which will consider how best harm reduction principles might become incorporated into the national tobacco control strategy. The committee will comprise government, scientific, NGO and tobacco industry representatives. What is meant by harm reduction? What should be your objectives in relation to it? Consider your strategy in responding to this scenario.	Welcome - formulaic		Within hours – judgement propriety Dedicated etc – propriety+ ?? Challenges - Reaction: impact	Mostly: Imperatives, bald assertions - monogloss – clarity! Might – entertain Asking questions: Is meant – monogloss Should – entertain Consider – monogloss Should – entertain Might – entertain Heading – monogloss? Revert to monogloss (search, are, is, over to ..) Few – quant thing or number	**Within hours** – quant process – extent – scope – time **National** – quant thing – extent – scope – space [in view of local / state/ national/ international concerns of PH – need to be quite explicit]	New thread Greetings Inclusive pronouns Incongruent IP metaphor

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	By the end of the week we should have explored the challenges this problem presents and settled on a few strategies that we might use in response here. Suggested reading: Search "harm reduction" in the keyword search window on the Tobacco Control journal website. There are many recent and state-of-the-art papers on the topic there. Perhaps the best summary is: *Kathleen Stratton, Padma Shetty, Student EWallace, and Stuart Bondurant. Clearing the smoke: the science base for tobacco harm reduction executive summary. Tob. Control 2001; 10:189-195.* Over to you....		Recent – valuation (i.e. relevance) State of the art – valuation Best – valuation				modalised IP Metaphor; inclusive 'we' IP metaphor Congruent Incongruent Incongruent
2.	Subject: Re:We have lift off! Topic: 1: Harm reduction Author:Andrea Date: 8 August 2008 08:20 Hi all, I thought I'd get the ball rolling. I'm looking forward to participating in some interesting	Looking forward – desire –	Interesting – reaction: impact		NB Limited sources referred to Integral citation – people foregrounded describe – attribute/		Greeting/ pronouns Published sources incl speeches/ Occ 'research'

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	discussion about harm reduction over the next week. Cheers, Andrea Stratton et al (2001) describe 'a product as harm reducing if it lowers total tobacco related mortality and morbidity even though use of that product may involve continued exposure to tobacco related toxicants'. In recent years there has been much discussion about the development or introduction of such 'potential reduced exposure products' or harm reduction interventions. They include: * modified tobacco, such as Snus (a smokeless tobacco product which is widely used in Sweden) *cigarette like products * pharmaceutical products, such as nicotine replacement or medicinal nicotine, antidepressants or other medications (Stratton et al 2001) When David Davies (a senior Philip Morris executive) delivered a speech at the National Press Club in Canberra in March 2005, he pushed his (and inadvertently the tobacco industries) agenda for the reintroduction of smokeless tobacco products. No doubt his enthusiasm for the development of these products, stems from the ever declining cigarette markets in many developed countries (Chapman 2007). He called for government regulation of these products, so that the industry can market the 'safer' products to consumers. Although regulation may indeed ensure the management of toxic ingredients, it also opens the door for tobacco advertising, which is currently	irrealis Concept of **harm reduction** throughout – harm = affect insecurity, reduction = graduation – mass or quant thing – extent – scope – space, metaphorical???	'safer' – 2x - valuation but distanced i.e. ironical Genuine –	Pushed agenda etc – veracity i.e. two-faced Inadvertently - ? ironic? Misused? Enthusiasm etc – verges on propriety –ve Aggressively market – propriety – neg	acknowledge? Even though – counter May – entertain Has been –monogloss but acceptable Discussion - acknowledge ? I.e. no stand taken – factual info reported **Delivered** – is this engagement at all or just a statement? Pushed – not engagement? **No doubt** – contract-concur – affirm **Stems**- assertion – poss controversial Non-integral cit – idea foregrounded **May indeed** – entertain + pronounce – balanced coupling (common) Opens/ is – some monogloss toggling with entertain	**Continued** - Quant thing – or extent – scope – time **Widely** – intens process? Quant – extent – scope – space – metaphorical **Continually** claim – intensification? Or quant – frequency??	'body of evidence' but source provided

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	banned in Australia and many other nations. The advertising of such 'safer' products will likely allow the industry to aggressively market their smokeless tobacco products to non or ex smokers, and children, despite the fact that industry representatives continually claim that they aren't interested in persuading children to smoke, despite their subversive advertising techniques (Davies 2005). Up until now, the tobacco industry has developed only a few genuine harm reducing products – Eclipse, Premier and Accord - though uptake has been low.		valuation	**Subversive advertising techniques** - propriety – neg	**'safer'** – distance 2x Will likely – entertain **Claim**- distance (tob industry) Non-integral citation **Only a few** – counter? **Though** - counter Assert but para reading Non-integral citation	**Only a few** – quant thing + only – intensifying – neg? **Low** – quant thing (uptake) –	
	Snus is a smokeless tobacco product, widely used in Sweden, which delivers high doses of nicotine without causing cancer or respiratory problems (Foulds 2003). Since the product was introduced there has been a significant drop in smoking rates amongst men in Sweden, as well as a reduction in lung cancer and myocardial infarction. Despite these groundbreaking outcomes, it's unclear if the introduction of Snus in Australia, as part of a harm reduction strategy, would have the same benefits, as there is not adequate research which shows that Snus or		**Groundbreaking** – reaction – impact Benefits?? Not adequate – valuation neg Effectively?		**It's unclear** – entertain **Would** – entertain Research **shows** – endorse (contract) **Would** – entertain **Non-integral quote** – info first **Would/ would need to** – entertain **Shows** – endorse – contract **May-** entertain **Have not reached** – categorical – monogloss? Or paraphrasing – acceptable	**Widely** – quant process – extent – scope – space **High** – quant thing **Significant** – quant thing Very – intensify (thorough)	

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	similar smokeless tobacco products, would be effectively exported to other countries (Chapman 2007). The development of a *harm reduction* strategy for the national tobacco strategy would be a very complex process, especially considering the varied backgrounds of the committee members. Our agency representative would need to have very thorough knowledge of Commonwealth legislation and public issues/scientific research, to make a valuable contribution to the planning process and strategy. There is a growing body of evidence which shows that theoretically harm reduction may be an effective way of improving individual and population health, though expects have not reached on a consensus on the most effective strategy (Martin et al 2004). The harm reduction strategy would need to compliment programs which have proven successful in reducing the rate of smoking and have positive health outcomes, such as prevention, cessation and community protection from environmental tobacco smoke. Although low nitrosamine smokeless tobacco (LNST) products may cause less health harm than traditional cigarettes, they still cause greater harm than no tobacco exposure (Giovino 2004). Objectives of harm reduction * Reduce the incidence and prevalence of lung cancer – the leading cause of cancer death in Australia * Reduce the smoking rate * Encourage smokers to use a product which is far less harmful than cigarettes * Encourage smokers to use LNST to quit	Harm - insecurity	**Complex** – composition – complexity pos **Varied** – complexity neg **Thorough** – valuation? **Valuable** – valuation **Effective** – valuation **Improving** – valuation? Infused e.g. getting better **Effective** – valuation **Successful** – valuation **Positive** - valuation		Would need – entertain Although – counter May – entertain Still- counter Categorical in summarising objectives but OK References – acknowledge but already covered above 9engagement there shd have priroty)	**Improving** – intensify relative + **Greater** – quant thing **Reduce** – quant thing	

Appendix 3.7 Case 3 Sample appraisal analysis

ID	Text	Attitude AFFECT	Attitude APPRECIATION	Attitude JUDGEMENT	Engagement	Grad	Notes
	* Discourage non-smokers or ex-smokers to take up LNST products * Deliver the best public health outcome within a limited budget *References* *[references deleted]*						

Appendix 4 Comparison table – thread chronologies

Part 1 Postings

	Case 1							Case 2	Case 3
	Mod 1 Gp 1	*Mod 1 Gp 3***	*Mod 3 Gp 1*	*Mod 3 Gp 2**	*Mod 3 Gp 3***	*Mod 6 Gp 3***	*Case 1 Average*	*Group 2*	*Cohort*
Duration of discussion (days)***	9	11	11	11	11	11	10.5	15	7
Words (incl 'overheads')****	9470	10436	9068	8845	10129	14497	10407.5	23334	28438
Postings total	53	74	59	59	75	113	72	112	105
Ave length of postings – all contributors	178.6	141	153.7	150	135	128.3	144.5	*208.3*	271
Number [%] moderator postings	6 [11.3]	10 [13.5]	7 [12]	20 [34]	6 [8]	12 [10.6]	12 [15]	19 [17]	15 [14]
Student contributors	20	20	22	20	21	22	21	16	16
Average posts per student	2.35	3.2	2.36	1.95	3.3	4.6	2.96	5.8	5.6

Part 2 Thread detail

	Case 1							Case 2	Case 3
	Mod 1 Gp 1	*Mod 1 Gp 3**	*Mod 3 Gp 1*	*Mod 3 Gp 2*	*Mod 3 Gp 3**	*Mod 6 Gp 3**	*Case 1 Average*	*Group 2*	*Cohort*
Threads total	6	8	6	13	6	13 (1 admin only)	8.5	8 [1]	6
% threads started by students	17 (1 solitary post)	0	0	0	0	23 (3 threads)	6.5	50 (4 threads)	33 .3 (2 threads)
Ave length of threads (days)	4	4	2.5	3.5	4	3.7	3.6	Part 1 – 3 Part 2 - 5	4
Ave postings per thread	9	9	10	4.5	12.5	9	9	Part 1 – 11 Part 2 – 22.5	17.5
Ave overlap* (days)	1.5	3	0.75	0.25	3	2	1.75	Part 1 – 1 Part 2 - 4	2.75
Max concurrent threads	3	4	3	3	3	5	3.5	3	5
Total mod in thread postings	0	Mod 1 = 1 Mod 2 (admin) = 1	1	7	0	3	2	15	11

* between adjacent threads

** moderator constant for Group 3

*** Duration: Where a thread has only one insubstantial post, this is not included in discussion or thread duration calculations. Where a thread has more than one post, even if they span only a few hours, this is counted as one day. Very late posts (for example single messages posted three or four days after the end of the initial discussion or after the discussion has closed) are not counted in calculating duration.

**** 'Overheads' are the standard components of each posting, for example the subject, author, date and time.

1 This would rise to 15 if the thread segments with name changes were counted as separate threads, but since they are technically part of the same thread they are included with the main thread. See Thread Map for further detail.

Appendix 5

Salmon, G (2004). 5-step model of teaching and learning online through CMC.
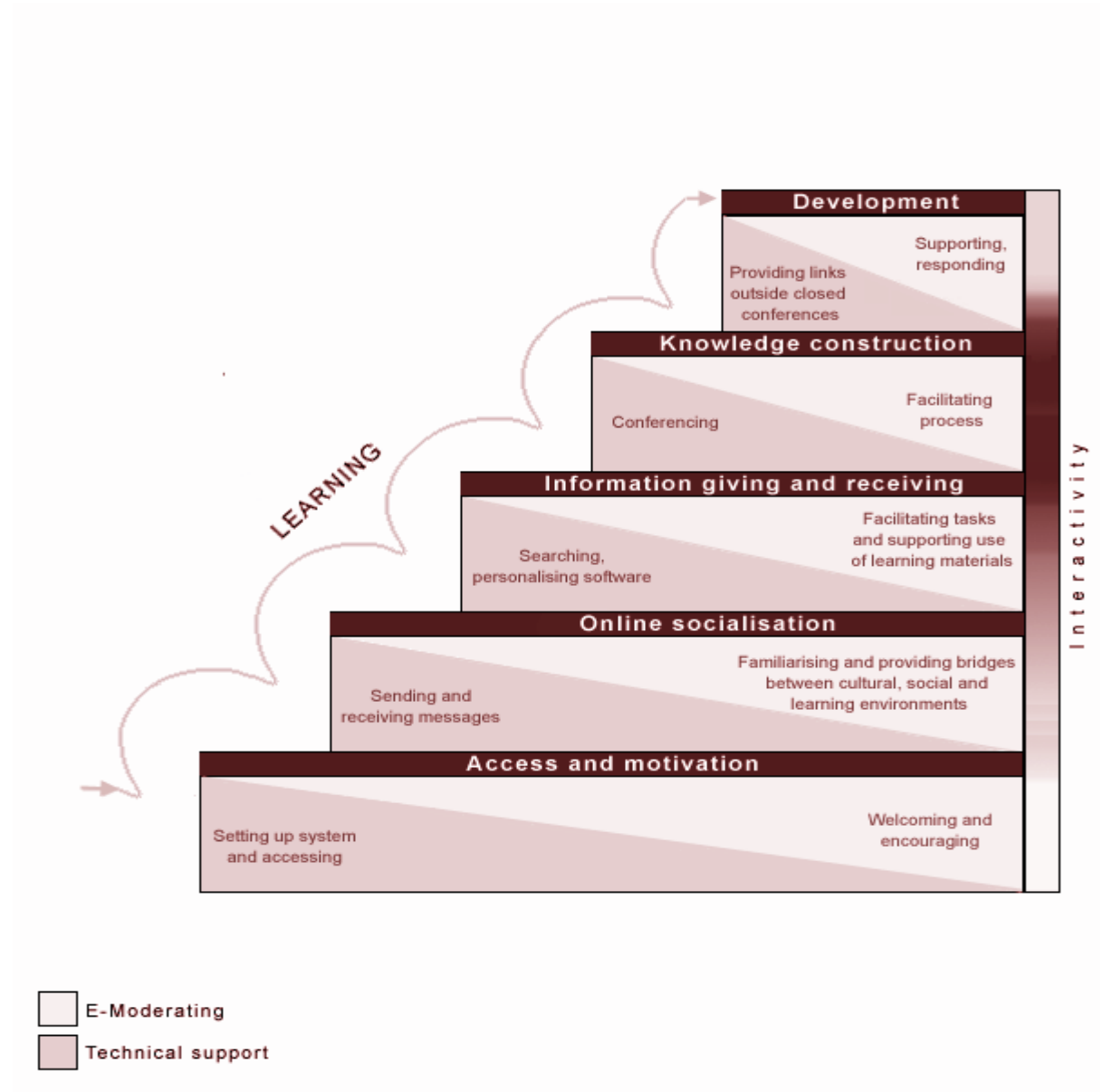
Appendix 6 Survey instrument - students

[this is an online survey. Questions 1-6 are standard School evaluation questions and must be used. Please note that, where each group within each topic is moderated by a different moderator, the questions labelled *Interaction with other participants and the moderator* will be asked immediately after the topic finishes, and will not be asked of all topics lest this lead to evaluation fatigue. Where the whole course or the whole group for the whole course are moderated by one person, the survey as it stands will be administered at the end of the course.]

ABCD1234 Evaluation

This survey asks you questions about your experience of online discussions in **ABCD1234** Your answers will help us design courses to meet your needs. Please refer to the Participant Information guide for more information about this survey.

1 How do you rate the **content** of this course?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

2 How do you rate the **teaching/ presentation** in this course?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

3 How do you rate the **relevance** of this course to your learning needs?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

4 How would you rate the **course notes and resources** (print and online) in this course?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

5 How do you rate the **appropriateness of assessment** in this course?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

6 How do you rate the **WebCT** site provided for your course?

- ° Poor
- ° Fair
- ° Good
- ° Excellent

7. In general, how satisfied were you with this course?
- o Very dissatisfied
- o Dissatisfied
- o Neither satisfied not dissatisfied
- o Satisfied
- o Very satisfied

8. Did you feel that you learnt what you needed to learn from the online discussions?
- o Yes
- o No

9 Please comment on your learning in the online discussions

10 Thinking back to your expectations of the course as it was starting, describe how your expectations were met or not met, as the case may be. You can access your journal entry by clicking *Discussions* in the left navigation panel.

11 Did you feel comfortable in the role of online learner?
- o Yes, all the time
- o Most of the time
- o Some of the time
- o I never felt comfortable

12 Please describe features of online discussion in this unit which made you feel comfortable or uncomfortable

13 Did you feel adequately prepared for online discussions?
- o Yes
- o No

14 Please describe what kind of preparation you think is needed for taking part in online discussions

15 Would you be happy to take part in future units of study containing online discussions?

16 Did you feel other group members made appropriate postings to the discussion?
- o Always
- o Most of the time
- o Some of the time
- o Rarely
- o Never

17 Please comment on the postings of other group members

18 Were you able to develop good relationships with other online group members (students)?
- o Yes, with all of them
- o With most of them
- o With some of them
- o With none of them

19. Please comment on your interaction with other group members in online discussions.

20 Did you feel your moderator was responsive to your needs and interested in you as a person?
- o Very much so
- o To some extent
- o Not really

21 Do you feel the moderator guided the discussion in a way which helped you learn?
- o Yes
- o No

22 Please make any further comments on your interaction with the moderator in this online discussion/ course.

23. Please note here any general comments (not covered above) on online discussions in this course

24 Are you:
- ° Male
- ° Female

25. Degree you are currently enrolled in:
- o MPH
- o MIPH
- o Other

26. Your professional/ study context
- o Studying full-time and employed
- o Studying fulltime and not working
- o Studying part-time and working
- o Studying part-time but not working

27. Your age range (age next birthday)
- o Under 25
- o 25-34
- o 35-44
- o 45-54
- o Over 55

28. Have you done an online course before (either partly or fully online)?
- o Yes
- o No

29. Were you educated in Australia?
- o All of my education took place in Australia
- o Most of my education took place in Australia
- o None of my education took place in Australia

30. Which of the following do you listen to or use every day?
- o Podcasts
- o Mobile phone texting
- o Personal communication device eg Blackberry
- o I-phone
- o Chat program eg MSN messenger
- o Skype
- o Social networking program eg Facebook
- o Virtual life games eg Second life
- o Other – please describe [may need to be a separate question]

31 Do you agree to having the text of your anonymous responses in this survey used in the research study into expectations and experiences of online discussions, , as described in the **Participant information statement**

- ° I agree
- ° I do not agree

Thank you. We appreciate your spending the time to provide this feedback.

Appendix 7 External source types in discussions

This appendix summarises the quantitative analysis of the external sources of information brought into the discussions, focussing on Case 3 as an example, then looking at the remaining cases in somewhat less detail. Of interest is the distribution of sources both within the discussion as a whole, comparatively between moderator and students, logogenetically (as a discussion unfolds – analysed for Case 3 only) and comparatively between discussions. This will shed light on sources considered appropriate to the context by both parties.

A7.1 Source types in the sample discussion: Case 3

The task for the **Case 3** discussion involves responding as a member of a hypothetical tobacco control organisation to a scenario which involves *harm reduction*. This term literally means reducing the overall negative effects on a person or community of a product or behaviour, even though the person or community may continue to be exposed to some level of toxicants or harm from the product or behaviour. The term itself combines negative APPRAISAL: security and reduced FORCE but is used experientially; the same applies to PREPS, *potential reduced exposure products.*

Analysis of Posts 1-78 of this case study discussion was undertaken; these constitute a single large thread started by the moderator (posts 1-69) and a shorter additional thread with the same name and general topic area, started by a student. The initial question directed students to two speeches and a paper, plus a web site for accessing relevant readings, meaning that the use of sources (extra-vocalisation) was specifically encouraged; students had already attended the workshop. The sources cited by students (in those posts for which informed consent had been obtained) were mapped by type and chronologically (see Table 7.1); one post may reference several source types. As Table 7.1 shows, the most common source of information or opinion was other students in the discussion (this category covers explicit reference by name to posts and/or ideas, not simply salutations, and of course is an example of intravocalisation). This was followed closely by published resources, including papers, books, reports and publicly accessible web sites. Surprisingly, given the expertise of these participants, only one explicitly referred to her professional experience as a source. Reference to resources explicitly prescribed for the activity predominated in the first few days while reference t o peers as sources of information and opinion increased as the discussion progressed. In the early days of the discussion, all posts included two or three (or in one case 4) different source types but in the later stages, when a critical mass of information and opinion had been made available, posts used just one or two types of source, as noted referring more frequently to peers' posts. Note that the categories of *uncited research / the procedures of the field* and *media personalities* were not tracked for Case 3 (as they were for the remaining cases) due to the different nature of the discussion.

Date Aug	Work-shop	Prescribed listening (speeches)	Pre-scribed reading	Other published	Individuals e.g. academic	Moder-ator	Own prof ex-perience,	Peers	None	Total eligible posts
8		1	1	1						1
9		3	4	4	1				1	5
10		1	1	3		1		3	1	8
11		2	3	5				6	1	11
12		2		2		1		6	2	12
13	1								2	3
14				2		1		4	1	4
Tot	1	9 (15)	9 (15)	17 (29)	1	2	1(2)	19 (32)	8	44

Table A7.1 Case 3 Threads 1 and 2 Students: Resources per day of discussion; percentage of total sources in brackets, rounded to the nearest whole number)

The source types used by each individual were also tracked and individuals were found to have a balance of types throughout the thread. All students except for one used prescribed or other sources, almost all referenced their peers at least once and almost all at least once proffered an opinion without sources to back it up. Exceptions were Melissa and Birgit, who in their single posts relied solely on sources, and Anh, who based her responses on her own professional experience or opinions and peers' comments; her posts are amongst the best argued. Posts appeared to be of four types:

- Those relying exclusively on prescribed resources and published texts (Posts 2, 4, 40, 41, 53, 55 and 66).
- Those relying on peers' comments (Posts 11, 13, 15, 35, 58, 67 and 77)
- Those not relying on sources (i.e. opinion only texts)
- Those exhibiting mixed sourcing

Amongst moderator posts (Table 7.2), there was very little reference to outside sources, apart from the post setting up the task, which lists numerous resources to be consulted (not included in the table). In sum, individual student participants generally did not show a preference for specific source types and the sources they referenced were mostly determined by the post's position within the thread chronology; moderators most commonly referred to their own professional experience.

Date	Work-shop	Prescribed listening (speeches)	Pre-scribed reading	Other publish ed	Individuals e.g. academic	Moder -ator	Own prof ex-perience,	Peers	None
Aug									
Tot				1 (25)			3 (75)		

Table A7.2 Threads 1 and 2 Sources in moderator posts

A7.2 Sources in Case 2

Extravocalisation was tracked separately for each of the first two weeks in the Case 2 discussions: Week 1, combining the brainstorm with the research and discussion components (68 posts in total, 26 available for analysis) and Week 2, with components separated at the request of the students (44 in total, 23 available). Students could choose to discuss the aspect of gender or social class; only the *gender* threads are analysed here.

The question for the Week 1 discussion (Moderator Post 1) asked students to bring back to the group a piece of research about age groups susceptible to weight gain, to summarise it and add opinions and informal comments to others, to add interest to the discussion. As Table 7.3 shows, the most common type of source quoted by students was journal articles and other 'published' sources for example health and statistical web sites, followed by reference to peers and personal experience. The moderator most commonly cited her personal and professional experience; both groups cited media figures, including politicians, while students twice referenced academics in the field. There were no discernible logogenetic patterns in the distribution of extravocalisation in this discussion.

	Work-shop	Journal articles, other published e.g. sites	General (uncited) research, procedures	Aca-demics,	Media	Moder-ator	Own prof exp,	Pers exp	Peers	None
STUD-ENTS		19 (41)	1 (2)	2	4	0	4 (9)	5 (11)	11 (24)	0
MODER-ATOR	1	0	0	0	1	0	1 (20)	2(40)	0	0

Table A7.3 Case 2 Part 1 Combined discussion [Number and percentage of total references to external sources]

Table 7.4 shows that in the Week 2 *brainstorm*, students cited research papers and their own professional experience equally; in the *research and discussion*, students mostly referred to published papers, as the task instructions suggested, and also to their professional experience. Student

extravocalisation has responded to the new task design, while the moderator more uniformly references her personal experience.

Table A7.4 Week 2: Separated discussions [% of activity type]

	Work-shop	Journal articles, other published e.g. sites	General (uncited) research, procedures	Aca-demics	Media	Moder-ator	Own prof exp,	Pers exp	Peers	None
BRAINSTORM										
STUDENTS		2(28)	1 (14)				2 (28)	1 (14)	1(14)	2
MODERATOR								4(100)		
RES & DISC										
STUDENTS		5(63)	1 (12)				2(25)			
MODERATOR			1 (50)					1(50)		

A7.3 Sources in Case 1

For the purpose of comparison, reference to external sources was tracked for three Case 1 discussions: Module 1, Groups 1 (Table 7.5) and 3 (Table 7.6) and Module 6, Group 3 (Table 7.7). The task for Module 1 was the same for all groups and in both cases the most frequent category of external reference was general references to research and the procedures of the field, again in keeping with the type of question asked. Group 1 referenced published papers and web sites whereas Group 3 did not on this occasion. The Module 6 scenario concerns sexually transmitted disease; in it Group 3 students show a greater percentage of references to published sources and peers than the moderator, who references only procedures of the field. It was difficult in some cases to distinguish between personal and professional experience. The discussion in Group 6 was dominated by one student so it is not possible to draw firm conclusions for this discussion.

	Work-shop N/A	Journal articles, other published e.g. sites	Research in gen, procedures of field	Acade mics	Media	Moder-ator	Own prof exp	Pers exp	Peers	None
Total stud		6 (15)	24 (60)				1 (2)		9 (22)	
Total mod		0	5 (100)							1

Table 7.5 Mod 1 Group 1 Summary of reference to external sources (percentages of source type for the participant type shown in brackets)

	Work-shop N/A	Journal articles, other published e.g. sites	Research in gen, procedures of field	Acade mics	Media	Moder-ator	Own prof exp,	Pers exp	Peers	None
Total stud			26 (96)						1(4)	
Total mod			3 (100)							6

Table A7.6 Mod 1 Group 3 Summary of reference to external sources (percentages of source type for the participant type shown in brackets)

	Work-shop N/A	Journal articles, other published e.g. sites	Research in gen, procedures of field	Aca-demics	Media	Moder-ator	Own prof exp,	Pers exp	Peers	None
Total Stud		14 (30)	17 (40)				2.5 (4)	3.5 (7)	9 (19)	4
Total mod		0	9 (100)							7

Table A7.7 Mod 6 Group 3 Summary of reference to external sources (percentages of source type for the participant type shown in brackets)

The five major external source types in the three cases are compared in Table 7.8. Two categories (marked N/A) did not appear in Case 3. Looking at the averages, interesting findings are that Case 3 featured the highest percentages of reference to published sources and to peers, while Case 2 had fairly high levels of reference to published resources and much more reference to professional experience than in Case 3. Case 1 had very high levels of reference to general research and the procedures of the field; Cases 2 and 3 had similar levels of reference to peers within the discussion.

	Published sources	General research, procedures	Own professional experience	Personal experience	Peers
Case 3	**59**	**N/A**	**2**	**N/A**	**32**
Case 2 Part 1	*41*	*2*	*9*	*11*	*24*
Case 2 Part 2 Brainstorm	*28*	*14*	*28*	*14*	*14*
Case 2 Part 2 Research	*63*	*12*	*25*	*0*	*0*
Case 2 Average	**44**	**9**	**21**	**8**	**13**
Case 1 Mod 1 Gp 1	*15*	*60*	*2*	*0*	*22*
Case 1 Mod 1 Gp 3	*0*	*96*	*0*	*0*	*4*
Case 1 Mod 6 Group 3	*30*	*40*	*4*	*7*	*19*
Case 1 Average	**15**	**65**	**2**	**2.5**	**15**

Table A7.8 Students - Percentages of references to sources per category for eligible posts (Note: may not total 100% as not all categories are listed)

The summary of moderator sources for all posts except task set up and self-introductions (Table 7.9) shows that professional experiences was most commonly used as a source in Case 3 and personal experience predominant in Case 2, with some reference to general research and procedures of the field, while Case 1 sources were overwhelmingly general research and the procedures of the field. Comparing moderator and student posts, it is clear that the three case studies are quite different. The only constant is that students make more reference than moderators to published resources. The Case 3 moderators stress their professional experience while in Case 2 students are more likely to do so than the moderator; she stresses her personal experience more than students do. In Case 1, personal and professional experience, while mentioned by students, are downplayed in order to concentrate on general research in, and the procedures of, the field. The category of reference to peers, quite significant for students, is of course not present for moderators. A caveat, however: these findings can only be regarded as a general indication of trends, rather than allowing for robust conclusions, given that source categorisation is impressionistic only and not based on linguistic principles, and also in the light of the low numbers of postings analysed.

	Published sources	General research, procedures	Own professional experience	Personal experience
Case 3	**25**	**0**	**75**	**0**
Case 2 Part 1	*0*	*0*	*20*	*40*
Case 2 Part 2 Brainstorm	*0*	*0*	*0*	*100*
Case 2 Part 2 Research	*0*	*50*	*0*	*50*
Case 2 Average	**0**	**17**	**6**	**63**
Case 1 Mod 1 Gp 1	*0*	*100*	*0*	*0*
Case 1 Mod 1 Gp 3	*0*	*100*	*0*	*0*
Case 1 Mod 6 Group 3	*0*	*100*	*0*	*0*
Case 1 Average	**0**	**100**	**0**	**0**

Table A7.9 Moderators - Percentages of sources per category (Note: may not total 100% as not all categories are listed)

Looking at *student* posts, key findings are:

- Case 1 had very high levels of reference to general research and the procedures of the field
- Case 2 understandably had fairly high levels of reference to published resources and much more reference to professional experience than Case 3.
- Case 3 featured the highest percentages of reference to peers and to published sources, showing a level of engagement with the ideas of others not seen in other cases.

The summary of *moderator* posts shows that:

- in Case 1 sources were overwhelmingly general research and the procedures of the field.
- in Case 2 personal experience predominated, with some reference to general research and the procedures of the field
- in Case 3 professional experience was most commonly used as a source

Comparing moderator and student posts, it is clear that the three case studies are quite different. The only constant is that students make more reference than moderators to published resources.

- In Case 1, both parties' main source was general research in, and the procedures of, the field, the only instance of alignment between students and moderators.
- Case 2 students are more likely to stress their *professional* experience than the moderator does but the moderator stresses her *personal* experience more than students do.
- Case 3 *moderators* stress their professional experience more than students do.

Appendix 8 Realisations of GRADUATION from Hood 2010

Extracted from the discussion surrounding the network diagram in Hood 2010

Force	Intensifying	An attribute				Very influential; nominalised quality: phenomenal success; can be combined e.g. breakthrough; very action-oriented approach;
		A process				Measured (very) precisely; precise measurement; thoroughly investigates
		A proposal				**Should/ Must** be taken into account, it is vital we take into account;
	Quantifying	A thing/ entity				(number, size, volume, mass, extent) Considerable interest (att); many/few studies (non-att); a relatively small number of subjects, very few studies (quant amplified), a much larger sample (relative); most of those studies ...; not enough evidence (inscribed); repetition or listing; 'such as...'; broadened understanding of ...
		A process	Extent	Distance	space	Geographical – accumulation; specific location
		A process	Extent	Distance	time	For at least 30 years; more recently
		A process	Extent	Scope =	space	a variety of texts, limitations of the study, broadens the scope; widely adopted; generally speaking
		A process	Extent	scope	time	Brief exposure, in recent years, over the past decade
		A process	Frequency			mainly, often,
Focus	Valeur	Authenticity				Real research, sort of ethnographic study, meaningful, authentic
		Specificity				General thrust,

						particularly..
	Fulfilment	Completion				Attempts to compare; achieved statistical significance; modalisation e.g. can be of value, might enable us to consider...
		Actualisation				Seems to be arguing ..., suggest .. vs establishes i.e. achieved ; a seemingly complex issue

Appendix 9 Genres

This list is compiled from Veel (1997) (school science genres), Coffin (2006) (school history genres) and Martin and Rose (2008) (school, workplace and some academic genres). When genre identification numbers are repeated in the list, this means that the extended numbers (eg 2.2a and 2.2b) represent variants of the genre listed above (in this case 2.2). At least one structural description was provided for most genres; in some cases disagreement amongst the three sources is noted. I do not intend to debate these disagreements and am interested only in a general description of relevant genres I have glossed over the discipline-specificity of genres in these sources to focus on the genres themselves, as school science, school history and the workplace genres, although well-documented, are not entirely comparable in terms of field to postgraduate study in public health.

School, workplace and academic genres.

Name	Purpose	Structure and notes
1. Recording genres		
1.1 Autobiographical recount [Coffin]	Recounting own experiences in narrow time frame	Orientation^Record of events^[reorientation]
1.2 Biographical recount [Coffin]	Life of significant historical figure	Orientation^Record of events^[evaluation of person] [Coffin] (M&R group 1.1 and 1.2 together)
1.3 Historical recount [Coffin, M&R]	Past events in chronological order – description, no causation	Background [summarising previous historical events]^record of events^[deduction – drawing out historical significance of events] [Coffin]
1.4 Historical account [Coffin, M&R]	As above but with causal links	Background^ account sequence^ [deduction – historical significance] [Coffin] [M&R group 1.4 with Explanations]
2 Documenting genres (Veel) *Reports* (Martin and Rose)		
2.1 Descriptive report (Veel, M&R)	Describing phenomena	Gen statement^description [Veel] Classification^Description [M&R]
2.2 Taxonomic report (Veel)	Describing classes of phenomena	Gen st^ description
2.2a Classifying report (M&R)	Describing phenomena as members of classes	Classification system ^ Types
2.2b Compositional reports (M&R)	Describing phenomena as parts of wholes	Classification of entity ^components
3 Enabling genres (Veel) *Procedures and procedural recounts* (M&R)		
3.1 Procedure [Veel]	To enable scientific activity, such as experiments and observations, to occur	Aim^Materials needed^steps
3.1a Everyday procedure [M&R]	How to do something, including experiments	Equipment and materials ^ method
3.1b Operating procedure [M&R]	Simple, can include visuals	Statement of purpose ^ Steps
3.1c Cooperative procedures [M&R]	Roles in teams carrying out tasks; more detailed; background provided	Purpose^Scope^definitions^Procedure

Name	Purpose	Structure and notes
3.1d Conditional procedures [M&R]	Making choices contingent on events	
3.1e Technical procedures [M&R]	Highly technical procedures; not used for professional levels	Objective^method
3.2 Procedural recount (Veel, M&R)	Recount a scientific activity in detail (Veel) Investigate using professional skils and report on investigation; recount and interpret what was observed [M&R]	Aim^Record of events^conclusion (Veel)
3.2a Research article (M &R) Macrogenre (Hood)	Type of procedural recount	Introduction^method^results^discussion
3.2b Experiment report (M&R)	Type of procedural recount:	Purpose, equipment and materials^method^results^[conclusion]
3.2c Technical notes		
3.2d Protocols	Restricting action rather than enabling	
4 Explaining genres		
4.1 Sequential explanation [Veel, M&R]	Describing observable sequences of activities	Phenomenon identification ^explanation sequence [Veel] Obligatory causal relation between events [M&R 151]
4.1a Causal explanation [Veel]	Explain why an abstract and/or not readily observable process occurs	Phenomenon identification^Factor 1-n
4.2 Theoretical explanation [Veel]	Introduce a theoretical principle or explain counter-intuitive events	Phenomenon identification/statement of theory^ elaboration 1-n
4.3 Factorial explanation [Veel, Coffin, M&R]	Explain event with simultaneous causes or events leading up to it – things leading up to an event	Phenomenon identification^ factor 1-n [Veel] Outcome^ Factors 1-n^Reinforcement of factors [Coffin] Phenomenon^Explanation [M&R]
4.4 Consequential explanation [Veel, Coffin, M&R]	Event with simultaneous effects – things flowing from an event	Input^consequences 1-n^reinforcement of consequences [Coffin] Phenomenon identification ^ effects 1-n [Veel] Phenomenon^Explanation [M&R]
4.5 Conditional explanations M&R 161	Events contingent on variable factors	Phenomenon^explanation Variability
4.6 Technological	Explaining technological	Sequential, implicit causal and temporal

Name	Purpose	Structure and notes
explanations M&R 163 - industry	processes in industry	relations; may include taxonomies
4.7 Exploration [Veel]	Events with 1 or 2 viable explanations	Issue^ Expl 1^Expl 2-n
5 *Arguing genres* [Coffin] *Persuasive genres* (Veel)		
5.1 Exposition [Coffin, Veel, M&R]	Arguing FOR a particular interpretation	Background ^thesis^ argument for 1-n ^reinforcement of thesis (elaborating evidence may incl concession) [Coffin] Thesis^ Arguments 1-n^ reinforcement of thesis [Veel]
5.2 Discussion	Considering different interpretations before reaching a position [Coffin, M&R] Persuade reader to accept a position by presenting more than one perspective [Veel]	Background ^ Issue ^ Perspective 1^Perspective 2^ etc^ Position (overall interpretation or thesis)(Coffin) *Example in Coffin et al 2005a: Thesis^Argument 1^Argument 2^ Counter-argument 1 with concession^Argument 3^Reinforcement of thesis* Issue^ dismissal of opponent's view^ argument for own position ^ recommendation (example only) (Veel) Issue^Sides^Resolution [M&R]
5.3 Challenge [Coffin, M&R]	One-sided; arguing **against** a particular interpretation	Position challenged^Rebuttal argument 1^Argument 2^etc ^anti-thesis
5.4 Hortatory exposition (Martin 2001:300)	To argue for what should be done – 'macro modulated declarative'	Recommendation at end

Table A9.1 School, workplace and academic genres.

Genres found in casual conversation

Genre	Generic structure
Narrative	(Abstract)^(Orientation)^Complication^Evaluation^ Resolution^(Coda)
Anecdote	(Abstract)^(Orientation)^Remarkable event ^Reaction^(Coda)
Exemplum	(Abstract)^(Orientation)^Incident^Interpretation^(Coda)
Recount	(Abstract)^Orientation^Record of events ^(Coda)
Observation/ comment	(Orientation)^Observation^Comment^(Coda)^(Completion)
Opinion	Opinion^Reaction^(Evidence)^(Resolution)

Table A9.2: Generic structures of text types in casual conversation 'chunks' (from Eggins and Slade 1997: 268)

Appendix 10 INVOLVEMENT in community building in the case study discussions

This appendix contains the detailed analysis to support my discussion of involvement in online community building in Chapter 5.

A10.1 Greetings, naming and pronouns in the sample discussion

Amongst means of fostering a sense of community suggested in the literature are salutations, vocatives, inclusive pronouns (we, us) and phatic conversation ('empty' communication such as comments on the weather and enquiries after health). Other suggestions (with relevant SFL systems) were: showing feelings and emotions (ATTITUDE: affect within the APPRAISAL network), praise, appreciation and compliments (ATTITUDE: appreciation and ATTITUDE: judgement) and affiliation, self-disclosure, humour and a 'conversational' tone, which presumably means writing as one speaks.

I start with the sample discussion (Case 1, Module 1, Group3), and with the moderator's postings to that discussion. Table A10.1 shows for each post in turn the use of personal pronouns, naming, salutations and signoffs as well as other ways the moderator refers to the group. 'You' was the most commonly used pronoun (60%) with an additional 6% of 'your'; there were only 4 inclusive pronouns (5%). Logogenetically speaking, there is unsurprisingly a preponderance of first person pronouns (I, my) at the outset (self-introduction) and a gradual increase in second person (you, your) as the discussion progresses. Only half the posts had a salutation and signature. Students are individually named on four occasions, with most acknowledgements being to the group as a whole (hence the preponderance of 'you'); the group is also addressed as 'Group 3' or, rather less warmly, as 'people'. There was no phatic communication. Perhaps the most interesting finding here with respect to social presence theory is the low incidence of inclusive pronouns: meaning is negotiated between 'I' and 'you', which gives the impression, at least at this early stage of the semester, that the moderator does not feel part of/ solidarity with the group and maintains her distance. However this is still more conducive to social presence than a heavy preponderance of 3rd person pronouns would be.

Mod 1 Gp 3 Carpenter	Post number and words	Personal pronouns	Naming	Salutations (Greetings and leave taking)	Sign off	Other references to the group
	1/ 264	My 3 I – 11 You - 6 Your -2	Group 3: 3	Hello - 1	First Name 1	
	4/ 58 Scenario	You - 2				
	15/ 34 ADMIN	You - 1				
	25/ 252	You -8 We - 2		Hi again	First name	
	41/ 159	I - 1 You – 6 Your - 1 They (group) - 1	Group 3	Hi Speak soon	First name	The other students others

	44/ 398	I -1 We - 1 Us - 1 You 12 Your -1	People Student by name - 4			A few others
	49/ 30	Nil – q only				
	65/ 28	You – 1 (qn)				
	77/ 496	I - 2 You -13 Your - 1 Me - 1 His (lecturer) - 1 They (doctors) - 1	people	Hi	First name	Each other
Totals	9/ 1719 [191 ave]	78				

Table A10.1 Case 1 Module 1 Group 3 Moderator posts: Greetings, naming and pronoun use

In this discussion, **Student participants** display a far lower density of instances of overall pronoun use (0.17 per 100 words) than the moderator (0.45 per 100 words). The percentage of student pronouns (see Table 5.2) that are first person singular is 61%, for the moderator 23%; inclusive pronouns constituted 39% of student posts and only 5% of moderator posts; 54% of moderator pronouns were second person whereas the student group used none. In this discussion, the students used few greetings or references to peers. There is no discernable pattern in the distribution of student pronoun use.

Mod 1 Gp 3 students (posts with permission)						
Post number and name	Word count	Personal pronouns	Naming	Salutations (Greetings and leave taking)	Sign off	Other references to the group
9 Liz	135	I	-	-	-	-
12 Chun	208	I x 6; we	-	-	-	-
16 Gitali	135	I x 2	-	-	-	-
21 Lee	138	We x 2, I x 1	-	-	-	-
33 Gitali	296	-	-	-	-	-
37 Mingyu	240	-	Student ee	-	-	-
40 Feng	137	I x 5; we x 2	-	-	-	everyone
43 Sam	159	I x 3, we x 3, our	-	Hi	-	-
45 Chun	88	We x 2	-	-	-	-
46 Gitali	111	-	-	-	-	-

52 Sam	235	I x 3	Student qq	-	-	-
55 Sam	92	1 x 1, we x 2	-	-	-	-
57 Gitali	116	-	-	-	-	-
58 Gitali	160	-	-	-	-	-
60 Lee	86	We x 1	-	-	-	-
63 Liz	106	I x 1, we x 2	-	-	-	-
64 Sam	81	I x 1	-	-	-	-
69 Gitali	92	-	-	-	-	-
71 Sam	79	I x 2, we x 2, our	-	-	-	Someone
72 Mingyu	92	I	-	-	-	-
74 Gitali	75	I x 3	-	-	-	-
76 Liz	70	-	-	-	-	-
totals	22/ 2931 (133.2 ave)	49				

Table 5.2 Case 1 Module 1 Group 3 Student posts: Greetings, naming and pronoun use

A10.2 Comparison with other discussions

Not surprisingly, some variation was observed between discussions as regards the resources used by moderators and students to address and refer to individuals and groups involved in the discussion.

All **Case 1** *moderators* studied used greetings and terms including the whole group such as *'all' 'you all'* and *'everyone'*, with *'guys'* (Mod 3.1) and *'people'* (across Group 3) less common. Case 1 *student* participants generally used 'Hi' to greet both peers (*'all' 'everyone' 'guys'*) and moderators, as well as acknowledging fellow students in the body of their posts. In Case 1, the frequency of student reference to peers varied between groups, with Group 1 having low to moderate levels in the modules studied (i.e. 1 and 3), and Group 3 starting low but ending up (by Module 6) with high levels.

In **Case 2** first and second person non-inclusive pronouns (I, you, your) predominated in *moderator* posts, but there was a fair proportion of inclusive pronouns (we, us, our) as well as specific reference to the group, on one occasion including herself (*us as a group*) but generally not doing so: *everyone, anyone, other students, they*. Individual students are mentioned rarely (twice in a welcome, twice in a salutation). Case 2 *students* frequently mentioned peers in their responses, as seen by the response trails in the thread map, but fewer than half of all posts has a salutation; first person pronouns were by far the most common, in keeping with the requirement to report on research and present own opinions.

In **Case 3** by contrast, although there was some general greeting and reference, the students most frequently named peers both in the greeting and the *body* of the post as they engaged with their ideas. Coupled with closures such as '*thanks' 'regards'* and '*cheers*', these posts resembled emails more closely than did those of other groups. As with Case 2, first person singular pronouns were heavily used as these discussions were more opinion-based than Case 1.

A10.3 Summary and implications for building and maintaining community

Considerable variability was present between case study discussions as regards moderator and student use of greetings, naming and pronouns: whether they were used at all, and the relative proportions of different types encountered. Generalising across the case study discussions, self-naming and signoffs occurred frequently. Moderators sign off almost exclusively with their given name only; students usually

(but not exclusively) address and refer to moderators and lecturers by their first name, perhaps responding to the conversational tone and perceived reduced formality of the interaction. The presence of names and greetings may represent, and may be 'read' by participants as, an attempt to build a sense of community, as suggested in the research literature. Further, the use of given names (vocation) represents 'direct engagement' with an interlocutor (Poynton 1990: 104), and as such works to reduce distance between participants. Even a generalised 'naming' is more engaging than none. Admittedly vocation does not reach the levels of complexity and intimacy detailed by Poynton, although there are a few instances of solidary naming, for example *my colleagues* or *mates*.

It was noted above that *inclusive pronouns* are thought especially to foster a sense of social presence. However a more nuanced view of pronoun use may be required. The discussions studied show a predominance of first person singular (*I, me*) and second person (*you, your*) pronouns, incidentally reflecting the conversational aspect of these interactions. There was some evidence of the use (by both moderators and students) of inclusive pronouns such as '*we*' and *'us'* to refer to the discussion group; where they are absent or rare, this may indicate moderators or students who do not feel part of the group. Where moderators praise the group's achievements or where a scenario is involved, there will of necessity be more second person pronouns; where opinions are sought and given, second and first person pronouns respectively may well predominate. The majority of instances of '*we*' (in Case 1 and to a lesser extent in the other cases) occurred when students posted 'in character', taking on the role of a hypothetical public health professional in the scenario. Similarly when moderators in Case 1 referred to 'you' it was often to the student in the hypothetical scenario role.

It is clear that the use of greetings and naming as well as the frequency and distribution of first and second person pronouns is far higher than would normally occur in written academic texts (cf Yates1996). This represents a shift towards the 'spoken' end of the mode continuum and resonates with much email correspondence, which is usually less formal than other forms of written correspondence. This is most marked in Case 3, in which posts read like contributions to an email list. This may indicate that students structure a new genre (such as asynchronous online discussions) to resemble a genre with which they are already familiar.

The analysis thus far supports the presence of elements suggested by Anderson et al (2001) as cohesive responses to foster social presence: salutations, vocatives and personal pronouns, although the latter are for the most part not inclusive. The more conversational elements of this interaction might work to reduce interpersonal distance and foster community, but it is not clear that the informality of spoken language is a *necessary* condition for a community to develop.

Appendix 11 Individuation and identity in Case 1, Group 3

This appendix traces the language choices which individuate Lee, Sam, Gitali and Liz, to supplement the discussion in Chapter 6. In terms of personal characteristics, apart from Chun, who did not supply the relevant information, all consenting participants in Group 3 presented themselves as having medical training and in some cases experience, with Sam, Gitali and Feng stating they are normally resident overseas.

The relative number of posts from all consenting Group 3 participants for selected modules in Case 1 is shown in Table A11.1. This shows that Lee was the most prolific contributor overall, although not in the first two discussions. There is a logogenetic progression visible in terms of volume of postings; this carries over to other features, as I show below. Overall, Lee posted considerably more than the moderator and nearly twice as much as the next most prolific student, Sam. Gitali is the most prolific female, although her frequency drops off after a strong start; Liz is the only other (consenting) female student in the group. In moderator evaluative moves across the three discussions, Lee receives the most mentions (nearly 25%) although the differences in frequency are not great.

Disc	Lee	Gitali	Liz	Chun	Mingyu	Feng	Sam	Mod
Mod 1	2	7	3	3	2	1	5	9
Mod 3	8	2	2	2	3	4	7	6
Mod 6	28*	3	2	4	3	2	5	12
Totals	*38**	*12*	*7*	*10*	*8*	*7*	*17*	*27*
* of these, 3 list references only								

Table A11.1 Posts by consenting students in Case 1, Group 3, selected modules

Selected features of text organisation, mapped for each case study member in Table A11.2, confirm the impression that Lee's linguistic choices differentiate him from the comparison students, and possibly the whole cohort. Lee, and to a lesser extent Sam, show a logogenetic progression, with increasing numbers of greetings and signoffs, mentions of individuals and, in Lee's case, quoted segments of the post to which he is replying. Using a combination of specific greeting, naming and quoting, Lee is increasingly singling out students' ideas for questioning or challenge. Surprisingly, given stereotypical views of female communication patterns, Liz's posts are devoid of any greetings, reference to individuals and signoffs and Gitali's first post contains her only general greeting. Results for Gitali and Liz, and to a lesser extent Sam, all of them clinicians, show the dangers inherent in proposing a community-building communicative style that applies to all disciplinary fields and their practitioners, an issue I have raised earlier (Lander and Reid 2008). The fact that Gitali may have learnt English as a second or other language also needs to be taken into account.

In terms of discursive identity as described to this point, Lee over time constructs himself as someone who is apparently eager to contribute and friendly (greetings and signoffs) but who engages promptly and incisively (and perhaps even aggressively) with the ideas of others. However, a fine-grained analysis of Lee's linguistic choices as individuation is needed to make a final call on his discursively constructed identity.

Module 1				
	Lee	**Sam**	**Gitali**	**Liz**
Greeting – general	-	1	1	-
Greeting – specific	-	-	-	-
Reference to named individual wrt content	-	1	-	-
Quote segment	-	-	-	-
Sign off – salutation and/or name	-	-	-	-

Total posts	2	5	7	3
Module 3				
	Lee	**Sam**	**Gitali**	**Liz**
Greeting – general	2	1	-	-
Greeting – specific	4	-	-	-
Reference to named individual wrt content	-	3	-	-
Quote segment	1	-	-	-
Sign off – salutation and/or name	8	-	-	-
Total posts	*8*	*7*	*2*	*2*
Module 6				
	Lee	**Sam**	**Gitali**	**Liz**
Greeting – general	1	-	-	-
Greeting – specific	19	-	-	-
Reference to named individual wrt content	4	3	-	-
Quote segment	7	-	-	-
Sign off – salutation and/or name	23	-	-	-
Total posts	*28**	*5*	*3*	*2*
* of these, 3 list references only				

Table A11.2 Distribution of textual features for selected students and modules

Given the Case 1 emphasis on procedures and general research in the field, it is not surprising that none of Lee, Sam, Gitali or Liz referred to external sources in Modules 1 and 3. Module 6 sees an abrupt change in the use of outside sources overall (possibly because of the topic area). In this module Lee does differentiate himself from the others: while both Liz and Sam provide one and two uncited but appended references respectively and Gitali supplies none, Lee provides references in eight posts. In five posts, sources are cited using the Vancouver referencing style (foregrounding content) and appended or supplied in an additional post and in three they are uncited but supplied. In terms of posts, pro rata (72%) this is the same as his share of the postings (73%), but in terms of the number of sources cited (19 papers and 3 web links) he far exceeds the others.

Individuation accounts for differences in linguistic choices between the individual and the community, as noted. It can be studied using a corpus-based approach. As outlined in Chapter 2, I prefer to focus on syndromes of APPRAISAL and NEGOTIATION choices in the sample texts. These include ENGAGEMENT, ATTITUDE, couplings, GRADUATION and, from Exchange Structure Analysis, clarifying and challenging moves. Since space constraints will not allow me to analyse all posts, I take a purposive sample, selecting Module 6 since this is where Lee most differentiates himself from the rest of the cohort. To balance the number of posts between subjects, I selected the first ten of Lee's posts (excluding those which only provide references), namely 3, 7, 10, 14, 16, 21, 30, 33, 36 and 42, and all of the posts by Sam (5, 27, 59, 63, 78), Gitali (12, 68, 98) and Liz (65, 71). I analysed the four students' post for realisations of ATTITUDE (AFFECT, APPRECIATION and JUDGEMENT), GRADUATION and ENGAGEMENT and compared the incidence of selected features. In addition, it is clear that Lees' posts are of two types – either information giving directed at the group in general or engaging with specific ideas in individual (named) student posts. The remainder of this analysis is featured in Chapter 6.6

Appendix 12: Word occurrence in five posts in Case 1.

Case 1 Mod1 Group 1 Series of related posts 5-6-7-19 + Moderator Post 4

	Investigation	Disease	Disease processes	Concern	Patients	Other
Moderator - Post 4		Difficult to treat skin infections Deep-seated abscesses		Concerned		
Student hh – Post 5		Disease Bacterial infection (4) Infection (4)	Cause Mode of transmission Skin to skin contact	Concerns (4) Prevent	Clinical history Examination Tests Specimens Treatment Risk factors Age, sex Immuno-compromised	Multi-resistant organisms
Student OO – Post 6	Trend Chance Descriptive epi data Recent rate Baseline rate Geographical distribution Clustering Timing Original case Hypothesis Cases Case control study Common source	Outbreak Epidemic Infection (4) (5)	Incubation Spread Person to person [cf skin to skin p5]		Risk factors [5]	Microorganism Organism [5]
Student ff – Post 7	Commonalities	Disease [5]	Cause [5]		Physical examination	

	Location Incident Similar patients		Means of transmission [5] Degree of spread [6]		[5] Lab test [5] Client history Medications Immunosuppressive drugs Signalment Age, sex [5] Prior health	
Student ee – Post 19	Case description Unlinked Co-incidences Case definition Spot maps Clustering [6] Point source Epi curve Hypothesis Diagnosis	Difficult to treat skin infections [4] Infections Rashes Lesions Papules Disease [5] [7] Abscesses [4] Skin infection [4] Outbreak [6]			Detailed description Pathology Histopathology bacterial Fungal cultures Host population characteristics (age, sex etc) [5]	Control measures [not asked for]