CAN CREATIVITY BE ACCOMMODATED IN THE COMPETENCY PARADIGM? A MUSIC INDUSTRY CASE STUDY

by

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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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For last year's words belong to last year's language
And next year's words await another voice
And to make an end is to make a beginning
TS Eliot.

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Abstract

The primary question of this research is; can creativity be accommodated in the competency system? A number of enquiries underpin consideration of this question. Two enquiries give background to the study. Firstly, consideration is given to the genesis of the competency system in the Australia socio-political context. Secondly, musical creativity is considered from the wider educational perspective in which Vocational Education and Training is situated.

Thirdly, a literature enquiry investigates popular and scholarly domains to identify theories of creativity as a basis for better understanding creativity. Fourthly, conversations with six popular commercial music industry practitioners, working creative artists, artist managers and teachers in the popular commercial music industry, evoke direct experience and understanding of musical creativity in the context of the case study.

Finally, specific competency items are measured against the findings of the preceding enquiries, that delineate creativity, to test the suitability of Competency Based Training learning and assessment materials to deal with creativity. These Competency Based Training items form the case study.

1. Introduction: competence and creativity

1.1. The thesis

The primary research question of this thesis is; can creativity be accommodated in the Competency Based Training (CBT) system? As elaborated in Chapter Four, CBT for the popular commercial music industry forms the case study for this investigation. The case study is a set of items, selected for relevance to creativity in music, from CBT learning and assessment materials. The CBT model is the cornerstone of the Australian Vocational Education and Training (VET) sector of the Australian education system. The VET sector now makes a significant contribution to the provision of training for the popular commercial music industry.

Essential issues implicit in the research question include: what is creativity, what relevance does it have in the popular commercial music industry, and how is it addressed in CBT? An important task, therefore, is to discover what can be understood about creativity as a basis for considering the development of creative skills for musicians. Thus, creativity accounts and theories relevant to the research question are identified and considered. Findings are used to gauge how creativity is addressed in CBT documents.

In framing the research, enquiry seeks to delineate the broader context of VET and CBT, that is, in their cultural, economic and educational settings. The thesis is developed through a series of enquiries. The first investigates the broad socio-political context surrounding the genesis and establishment of CBT in Australia. The second investigates learning and assessment for creativity in music education across the Australian music education spectrum. That enquiry situates VET in the broader Australian education system. The third enquiry interrogates the creativity literature to identify and distil accounts and theories of creativity relevant to the research. The fourth garners the experience of creativity directly, through conversations with music industry practitioners.

Relevant CBT items are analysed for alignment with findings from the creativity literature and industry conversations for fitness to learning and assessment for musical creativity.

1.2. Why a case study?

Case study is used in this research for its capacity to focus observation of a fundamental operational aspect of the competency framework, while paying attention to the complex of contexts, and subsequent influences, of its location. This allows a discrete site, CBT for music

education in VET, to be the axis for considering the extent to which creativity can be accommodated in formal CBT practice. The rationale is elaborated in Chapter Four.

1.3. Why the research?

As a Senior Project Manager from 1996 to 2000, the researcher was involved in the development of CBT instruments with CREATE Australia. That organisation was, at that time, the national advisory body for skills development in the cultural industries. Coming after a long career in music education, that experience gave pause for contemplating the effect of CBT upon learning and assessment for creativity. Subsequent employment with the New South Wales Department of Education and Training (NSW DET), on skills development projects, piqued the researcher's interest and curiosity regarding the notion of skills development within the broader framework of learning and assessment. From the perspective of an experienced music teacher it seemed that creativity could surely test the capacity of the CBT model to facilitate such complex and seemingly indefinable skills. Essentially then, this research aims to explore how CTB fares on creativity.

As explained in Chapter Two, attributions of behaviourist, mechanistic, atomistic and positivist marked the journey of the CBT model in Australia. Arguably, skills formation methods deserving of such limiting terms might be expected to fail in serving the needs of education and training in a contemporary, post-industrial environment. Earlier research, noted in Chapter Two, tested some of those negative assertions in considering the appropriateness of competency based methods for training in areas of complex work (Gonczi, Hager & Athanasou 1993). Building upon that work, this research draws its case study from the music industry, a quintessentially post-industrial market area. Further, it places VET within the broader music education spectrum. The study considers the congruence of the Australian CTB model with perceptions of creativity, typically a primary behaviour, or skill, associated with music making.

Not having been part of the traditional VET purview, the cultural industries exemplify changing expectations for the VET sector to engage in new industry relationships. This may have been a necessary response to momentous post-industrial transformation. At any rate, the music industry case study embodies a range of contemporary issues for VET in the music industry and in other "creative" industries. Thus, while focusing investigation on the fitness of the selected competency items for learning and assessing creative skills, the study also provides purchase for a broader perspective. That is, as a window through which to observe arrangements for VET and its political and policy frameworks from the 1980s to the turn of the century. The historical

and changing contexts of VET, and the national training framework, may thus be considered at the macro level from this particular perspective and within this time frame.

Technical trade training, which has traditionally been offered through the VET sector, is reflected against important issues that have emerged for VET over the last two decades. That is not to say that industries that made up the traditional trade sector, long core to VET, are typically mechanistic, uncreative or lacking in innovation. Rather, flexibility in vocational curriculum was formerly a less significant imperative than is now the case. Currently a more expansive VET sector is responding to an ever more diverse and complex market economy. Demand by large organisations for substantial and predictable annual cohorts of apprentices in industries, such as metals and manufacturing, no longer forms the primary demand for VET provision. Investigation draws out some of these issues where they have a significant impact on the rise of the competency paradigm as the educational charter of the Australian VET sector.

Essentially, CBT is demonstrated here through the perspective of music. Nevertheless, in a broader context, VET maintains training delivery for traditional manufacturing and technical trades, while also seeking to provide for the education and training needs of newly emerging service industries. Consequently, CBT accompanies a profound redefinition of old and new "technical" industries that are extensively expanding, and continuously changing, joining, for example, cookery, plumbing and hairdressing with information technology, financial services, museums and entertainment.

1.4. Language used in the research

For more than two decades now, although fiercely contested across education sectors, CBT has continued to consolidate its role as a fundamental policy driver for the Australian VET sector. The adoption of the competency model, and in particular its relevance to learning, continues to be debated, albeit in qualitatively different and, arguably, less heated terms than in its initial phase. As with such deeply contested issues, the language surrounding discussion of CBT often serves to obscure rather than to illuminate. The competency discourse is populated with technical, ambiguous, simplistic, idiomatic, jargonistic, obscure and value-laden terms. As the CBT discourse is intrinsic to the expression of this research, terms and concepts that are likely to require clarification are noted and considered as far as possible where relevant in the research dissertation.

A glossary is provided at **Appendix A** (see page 259) to spell out acronyms and to denote intended meanings for the purpose and context of the research. Definitions are drawn and

referenced from official VET sources where possible, including industry, non-government, bureaucratic and ministerial VET statements. Notions such as competency, nationally recognised, industry, Training Package, Competency Standards, Units of Competency, music, the music industry, creativity, training, learning, training products and so on, specific understanding of which is critical to the reporting of this research, are clarified as far as possible as they occur in the work. For the purpose of this area of study "performance" may apply either to musical performance for an audience or in the context of CBT as a competency indicator. Context will clarify the meaning. In this study the term, performance, is unrelated to the concept of performativity, a specialised term outside the remit of the present study.

1.5. Project summary

In exploring the effectiveness of the competency model, as an enabler of creativity in the domain of music, the qualitative approach used for this research combines a number of enquiries pertaining to creativity, learning and assessment in VET and other sectors, and relationships between education and music cultures.

The Australian competency system is viewed in its educational and political contexts. The structure and content of the competency model in Australia and its systematic implementation are considered. Literature on creativity and learning is analysed, and links between competency and creativity are sought from the literature analysis and from analysis of conversations with music industry and VET sector practitioners.

Relevant competency items, developed by government funded and directed agencies as instruments for the implementation of the Australian competency model, form the case study. These are identified as the finishing point of the investigation. They are selected for their direct relevance to the formation of creative skills as identified and agreed by industry stakeholders to be required for musicians aspiring to work, for example, as composers, producers or performers in the music industry.

An account of creativity is conceptualised through analysis of a range of literature sets and from music industry and VET sector informants. The account is adjusted across these sources and conceptualised, through a series of creativity questions, to establish broad creativity indicators against which the selected competency items are evaluated for their usefulness in enabling the learning and assessment of creative skills in the education and training of musicians.

The creativity questions are:

- to what extent can creativity be described and/or defined?
- how is creativity apprehended, perceived and understood?
- what factors are most likely to be associated in manifesting creativity?
- to what extent is creativity a gift, a behaviour, a competence, or a skill?
- to what extent can creativity be learned?
- how can we know that it has been learned?
- What is the significance of creativity for "productive practice/success" in the context of commercial music markets?

1.6. Structure of the thesis

The thesis structure is indicated by the chapter headings below. Chapters are sequenced to suit potentially diverse information needs that readers of this dissertation may have. Levels of familiarity with the national training system, for example, will vary from reader to reader. Hence some may find the information in Chapter Two a necessary introduction for understanding the relationship between economic and educational concerns, while those with closer experience of VET will have more familiarity with that information.

1.6.1. Chapter One – Introduction

This chapter introduces the study and provides the following outline of subsequent chapters.

1.6.2. Chapter Two – The rise of the competency paradigm in Australia

Chapter Two places CBT in a political, social and economic context. Here, the competency paradigm and its emergence and implementation in Australia are considered in the context of the political, economic and social elements supporting and opposing its implementation. The policy framework is considered and political imperatives surrounding implementation of the competency model in Australia are delineated.

The processes and instruments of its implementation are also considered. The latter, specifically Training Packages, are referred to there only in the broadest of terms.

1.6.3. Chapter Three – Music genres and learning cultures

In Chapter Three the relationship between learning and creativity in music education is investigated. The broad spectrum of music education in Australia is surveyed, providing a cultural and educational setting for the case study. This exposition and analysis of music education in VET and other sectors presents a broadly comparative view across those sectors.

In considering the association of musical genres and cultures with specific learning cultures, attention is drawn to notions of excellence and competence. The accommodation of creativity in music education across the spectrum, a task of inestimable potential, is considered here only in the broadest of terms, as the focus must remain VET and CBT centred.

1.6.4. Chapter Four – Research methodology

Chapter Four delineates the case study and case study methodology, setting out the five sites of enquiry in the research. These are the enquiry into the emergence of CBT, the enquiry into music education and then the three creativity enquiries. The first of these three is the literature enquiry into accounts of creativity. The second is a series of conversations with industry and VET practitioners to draw out professional accounts of creativity. The third, forming the case study, is a set of eight CBT training items relevant to musical creativity. Accounts of creativity from the two creativity information sources are synthesised for correspondence with the selected competency items of the case study. The purpose of this process is to assess the suitability of the selected competency items for specifying creative skills to enable learning and assessment in creative music practice.

1.6.5. Chapter five – Accounts of creativity from the literature

Literature sets pertaining to creativity are analysed in Chapter Five. Enquiry encompasses popular literature on creativity, and more specific creativity literature domains drawn from philosophy, psychology, music education, composition, performance, musical direction, musicology and aesthetics. Cognitive science is included for its contribution to learning theory and creativity. The literature enquiry is the first creativity information source for the research.

A set of creativity questions guides the literature enquiry. These are deployed in concluding the chapter, to distil relevant information on creativity from the literature to inform the study.

1.6.6. Chapter Six – The music industry and conversations on creativity

Perceptions of creativity from within the music industry form the focus of Chapter Six. An analysis of conversations with practising music teachers, creative artists and artist managers is elaborated in the chapter. Accounts of creativity from the experience of industry practitioners adds an embodied perspective as the second creativity information source of the study.

The set of creativity questions from the literature enquiry is reprised here to distil accounts of creativity from the conversations, as in the literature enquiry.

1.6.7. Chapter Seven – Musical creativity and competence

Concentrating on the instruments of CBT, the case study is the focus of Chapter Seven. Creativity related Units of Competency from the *Music Industry Training Package 01* are considered for correspondence with findings on creativity. Specifically, eight Units of Competency selected for their relevance to creativity are evaluated in the light of information gained on music education, from the enquiry into music learning and assessment, and on creativity, from the literature enquiry and from conversations with industry practitioners.

The selected competency items sample different sites of creativity, such as composing, performing, improvising, studio production and music tuition. These CBT items are considered for their value in explicating creative skills for creativity to be accurately specified for learning and assessment in VET.

1.6.8. Chapter Eight – Research findings

The research findings are synthesised and distilled in Chapter Eight. Wider implications drawn from the research are considered to provide recommendations for application in the music industry and potentially more broadly for music education and the VET sector in general. The findings are considered for their relevance to the specification of skills where they pertain to creativity and more generally as a critical step in the learning process for skills formation.

2. The competency paradigm in Australia: 1980-2005

This chapter provides a crucial context for the case study. It explores the policy framework for VET during this period, and charts some of the factors that led to the adoption of the competency model in Australia. The genesis of CBT is considered in the context of the broad political, economic, industrial, educational and social dynamics that led to its realisation.

Diverse agendas and discourses surrounding the genesis of CBT, and the processes and instruments of implementation, are observed broadly in this chapter. The latter, most notably National Training Packages, are touched on only generally here.

2.1. Overview

The policy framework for VET in Australia is considered here over approximately the last three decades. Attention is drawn to wide-ranging shifts in the Australian economic and political terrain and some of the critical policy responses. This account gives a cultural and political context for the music industry case study.

Overall the chapter takes an historical approach, drawing out significant interacting elements that underpinned radical changes for the VET sector from the 1980s to about 2005. During that time speed, and complex change, increasingly inundated the sector, accompanying the term of the federal Labor Government from the mid 1980s until 1996. CBT was a powerful policy instrument of the Keating Government's "Training Reform Agenda" (Curtain 1994).

The settlement on CBT, through the Training Reform Agenda, was by no means a linear process. However, in tracing the emergence of the competency system, this chapter complies as closely as possible with a chronological structure. Analysis focuses on how CBT has been prompted and sustained from its beginnings in the 1980s, its bedding down in the Australian VET sector as a critical component of national, and state and territory policy implementation in the 1990s, and its continuing evolution in the VET sector into the current decade of the twenty first century. Evidently, attempts to identify the milestones of the training reform agenda are hampered by the complex and untidy nature of their genesis and presentation:

> The training reform agenda is not, as the name implies, a formal list of things. It is a term given to a series of discussions and decisions taken by Commonwealth, State and territory governments from the late 1980s to the late 1990s…
>
> … there is no official starting point for the reforms, nor were they necessarily developed in a sequential and cohesive manner (Smith & Keating 2003, p. 40).

Significant milestones in the chronology of CBT reflect political factors that informed policy frameworks through which CBT has been distinctively forged and implemented in Australia. Of note is the enduring political interest in VET over the past three decades. This attention has led to more specific definitions of VET and closer articulation of the purpose of the VET sector as it was embraced with mounting vigour, by governments of all persuasions, as an agent of economic development. That is not to suggest that CBT has proven to be a silver bullet. Yet, to exhaust the metals metaphor, neither does hindsight indicate a golden era for VET prior to CBT.

Political attention to VET has also led to the sector developing a significant market in its own right. Expansion of the private training market has been integral to the VET agenda over the last two decades with privatisation having intensified in the VET sector over about the last fifteen years. Private VET providers now compete with each other and with government institutions, referred to as Tertiary and Further Education (TAFE), to attract clients. Increasing commercialisation of VET strengthens the notion of VET as an industry in its own right. Still, many private VET providers depend upon government funding either directly, through government-contracted training, or indirectly, through government allowances to students.

The forces and agendas that propelled CBT into the VET sector favoured VET as a discrete focus of political interest and attention, or as a sector in its own right. However, its potential application in other education sectors caused disquiet that VET, particularly through the instrument of CBT, would invade the full spectrum of educational streams. This was especially so as discussion of outcomes based education gained increasing attention in the schools' sector.

Core to CBT was the enforcement of a radically new national regulatory regime that could span public and private VET provision. Policy processes, and instruments developed to implement CBT, were designed to form a framework for executing that regime. Closer consideration of CBT from both educational and operational perspectives, and delineation of the specific instruments of its implementation, is found in Chapters Three and Seven.

As education concerns a significant proportion of the population, politicians are generally attentive to political factors that inform education policy and its implementation. Given the close relationship of VET with employment, and broader economic and labour market issues, the political nature of VET typically draws attention to multiple and often dissonant voices. Indeed, at times VET policy on CBT is informed by conflicting sources among groups whose only common purpose is their interest in winning the debate. The Training Reform Agenda exemplified a remarkable political response to dynamic forces arising from diverse sources. It

provides a challenge to analysis and discussion of the competency system and the often highly contested change cycles to be accounted for in considering VET provision.

2.2. Education in Australia

The Australian education environment encompasses a complex web of relationships that sustain the funding, management and regulatory arrangements of education and training within and across Australian government jurisdictions and education sectors. While distinctions can be drawn concerning the arrangement of these education sectors as they are organised in a variety of ways across federal, state and territory jurisdictions, generalisations can also be made. This brief and generalised outline of Australian education sectors provides a setting for VET and a snapshot of its position in the Australian education mix. An investigation of music education, in Chapter Three, explicates the Australian educational spectrum in some detail.

Traditionally, Australian education has been held to consist of three sectors; schools, VET and Higher Education (HE) (Smith & Keating 2003, p. 4), (Marginson 1993, pp. 5-6). A new form of convergence between VET and the school curriculum over the last two or three decades drew attention to the place of general education in VET, and ultimately the place of VET in general education. Essentially, a dichotomy has been drawn between VET and general education, a notion considered in more detail later in the chapter. The term general education is associated with a range of understandings and possibly, misunderstandings. This study uses the term "general education" to describe education in the broadest sense, including academic and broader educational fields, in brief, any form of learning that is not undertaken with an immediate vocational outcome in mind.

The 1992 Carmichael report, articulating a new national direction for post secondary education, noted the already pervasive disposition of VET across education sectors in Australia:

> Vocational education and training in Australia is provided by schools, tertiary educational institutions (including TAFE), private and community providers and, at work, by firms (Carmichael 1992, p. 74).

Though not defined in the Carmichael report, general education was distinguished from VET, though with the aim of integration:

> The Employment and Skills Formation Council's approach is that general and vocational education and training should be pursued in integrated networks that assist in combining work and learning. Work and learning in integrated networks should provide for individually driven learning (to acquire skills in accordance with industry-defined, National Training Body-endorsed competency standards) (Carmichael 1992, p. 75).

Espousals of life long learning (Smith & Keating 2003, p. 4), and (Karmel 2004, p. 2), based on the need for continuous development of vocational skills, were evident in Australian educational policy for the VET sector. From the outset, the importance of post-secondary pathways was highlighted. The need for continuous learning and seamless learning pathways accompanied early rhetoric in reforming the national VET system, so that in 1998 the Australian National Training Authority Ministerial Council (ANTA MINCO) declared:

> Changes in the markets for Australian products and services, industry restructuring and technological change have all contributed to a growing acknowledgement that people need to upgrade and update their skills throughout their working lives (Australian National Training Authority 1998).

The emergence of an increasingly autonomous adult community education (ACE) sector also corresponded with a more pervasive vocational emphasis on VET. In July 2002, state, territory and federal ministers with responsibility for Education, Employment, Training and Youth Affairs endorsed a new Ministerial Declaration on Adult and Community Education. At its 13th meeting the Ministerial Council for Education, Employment Training and Youth Affairs (MCEETYA) declared:

> …it firmly places Adult Community Education as a significant contributor within the continuum of education and training provision in Australia (Curriculum Corporation 2002).

In addition, as preschool, or early childhood education, took on a more significant role, also in part due to the work-life changes alluded to in the MCEETYA declaration (Australian National Training Authority 1998, p. 7), a full account of Australian education would admit early childhood and ACE as distinct educational streams, making five, rather than three, distinct educational sectors.

While this five-part division is reflected in the structures of various government agencies and in policy forums across Australian government levels and jurisdictions, demarcation remains equivocal due to the often flexible, even ad hoc, arrangements between particular education sectors. A greater emphasis on VET has also manifested in blurring the distinction between general and vocational education with an increasing quantum and concentration of vocationally related education. Significant VET provision is evident, for example, in the school and ACE sectors. The position of vocational education in the education mix became more intensely contested as it became closely aligned with the growing influence of CBT, giving rise to a view that vocational education had come to colonise the education project:

> There is a double movement in which there is both a broadening and a narrowing. Vocational education is broadened, but liberal and general education are narrowed by subordinating them to the vocational aspect (Marginson 1993, p. 168).

Subsequently, Foley's more expansive critique supported Marginson's misgivings concerning the potential dominance of vocational considerations in determining educational policy in the contemporary socio-economic environment:

> …reorganisation of education accompanies reorganisation of the economy…if a nation is to maintain or enhance its standard of living, its efforts in education must focus on helping its economy to become internationally competitive. The primary role of education… is redefined as the production of human capital. The state decrees that education must become more vocational… (Foley 2000, p. 287).

Six years after Foley's critique, an overt statement of human capital policy was presented as the overarching framework of the skills development agenda by the Council of Australian Governments (COAG). At its meeting of 14 July, 2006, COAG determined that:

> MCEETYA would report to COAG in December 2006 on recommendations for action for youth transitions that could have the greatest impact on productivity and participation, within the framework and objectives of the human capital agenda; and
>
> The Ministerial Council on Vocational and Technical Education that is to report to COAG in December 2006 on the possible further reform of the vocational education and training system to support improved productivity for Australia's workforce, also do so within the framework and objectives of the human capital agenda (Council of Australian Governments 2006 July).

The COAG meeting identified four initial priority areas. Among these were, "improving childhood development outcomes in the first five years of a child's life", literacy and numeracy and "child care – with the aim of encouraging and supporting workforce participation of parents with dependent children". It also identified a further eleven "high-level outcomes as a framework for the human capital agenda to improve participation and productivity" which, in addition to statements on health, included:

- significantly improve the proportion of children acquiring the basic skills for life and learning
- reduce the proportion of the working age population not participating and/or under-participating in paid employment due to illness, injury or disability
- reduce the incidence of preventable chronic disease and serious injury amongst the working age population
- increase the proportion of young people meeting basic literacy and numeracy standards, and improve overall levels of achievement
- increase the proportion of young people making a smooth transition from school to work or further study

- increase the proportion of adults who have the skills and qualifications needed to enjoy active and productive working lives
- improve overall workforce participation, with a particular focus on target groups, in a manner consistent with the long-term interests of the individual and the economy, giving due regard to productivity
- increase the provision of flexible working arrangements within the workforce, in a manner consistent with the long-term interests of the individual and the economy (Council of Australian Governments 2006 July).

Thus while VET, due to its vocational remit, has been the educational sector primarily charged with responding to economic conditions, changing economic conditions have also had complex and multiple impacts on other education sectors. Significant among these has been the movement of educational boundaries. For example, by continuing to include vocational courses in its offerings, alongside general, lifestyle and leisure courses, the ACE sector was able to capitalise on the increasing commercial value of those courses. A commercialised training market in which national recognition of qualifications is accorded across jurisdictions has made this possible.

However compelling the argument for CBT in the VET sector, it was not widely considered the answer to economic, much less societal challenges. Based on a reasonable perception of CBT's potential to "vocationalise" other sectors it was strenuously argued early in the competency debate that schools and HE should be quarantined from CBT:

> … the government has adopted a view of education and knowledge which is technological or technicist, which serves to prescript learners, and has become an ideology which disempowers both its adherents and critics. It renders unproblematic questions about the nature and purpose of vocational education and education in general (Stevenson 1992, p. 82).

Since universities play a significant role in preparing students for a profession, or vocation, objections by HE to vocationalisation may seem ingenuous. Evidently students undertaking university courses generally do so with employment in mind, possibly most especially in courses leading to high-status professions. While the type of learning that takes place in HE may be qualitatively different to that which takes place in VET it is argued, in Chapter Three, that what HE, and to a lesser extent schools, have sought to avoid is not vocational learning so much as a CBT based system. The argument is not based on comparative appraisal of the pedagogical, andragogical, or even heutagogical effectiveness of methods other than CBT, but

is rather a singular critique of CBT. Comparative evaluation of learning and assessment methods does not characterise the anti-CBT discourse so much as condemnation of CBT.

The distinction between HE provision and that of VET is most conveniently expressed through the distinctions drawn by the Australian Qualifications Framework (AQF) between HE and VET qualifications, detailed in Chapter Three. VET sector delivery is defined, for the purpose of this study, as covering the provision of education and training for qualifications identified in the AQF as VET qualifications. Though qualifications designated VET may also be delivered in schools and in HE, the term VET describes the sector of education that is primarily concerned with skills formation in the "non-professional" areas of work. Yet, distinctions between professional and non-professional have become increasingly blurred.

2.2.1. A national profile for VET in Australia

Smith and Keating define VET as the education sector associated with industry, a job or task, on and off the job learning, skills based, and, learning in a wide variety of contexts (Smith & Keating 2003, pp. 2-3). In keeping with that account VET is broadly defined, for the purpose of this study, as education and training for the dissemination, formation, and diffusion of employment-related skills. This embraces formal or informal means through VET institutions, schools, workplaces or communities, as well as collective and/or individual life experience. While the notion of the VET sector in this sense is fluid, for the purpose of this study VET is limited to provision within the CBT model which largely, though not entirely, excludes HE.

Smith and Keating also note that, since 1996, Organisation for Economic Co-operation and Development (OECD) countries have adopted the concept of lifelong learning for all and that, due to the wide participation of people across age and other demographic groups, VET has relevance to the notion (Smith & Keating 2003, p. 4). Life long learning may be defined within the scope of VET, as ongoing job or work-related learning. For this music industry case study, however, life long learning is not a prime consideration, though it has much relevance to music.

VET became a distinct, publicly-funded, Australian education sector in the mid 1970s, when technical colleges defined the sector. Prior to that, VET had at various times been incorporated into other education streams such as technical high schools, technical and evening colleges and colleges of advanced education. From the 1980s it became clear that, due to the changing nature of work the terminology of technical training was inadequate to encompass the expanding notion of "trades". From the mid 1970s the education sector, primarily engaged in the provision

of work-related education and training outside the HE sector, emerged to become more formally known as the VET sector.

The work of the Australian Committee on Technical and Further Education (ACOTAFE), chaired by Myer Kangan, was a watershed in the development of a more autonomous profile for VET. The newly elected Whitlam Labor Government commissioned ACOTAFE, whose report, *TAFE in Australia: Report on Needs in Technical and Further Education* was published in 1974 (Kangan 1974).

> The release of the report…, the subsequent establishment of the Technical and Further Education Commission (TAFEC) and the provision of Commonwealth funding in the 1970s had a dramatic effect on technical education in all States. It meant that technical education under its new name TAFE was recognised nationally as a distinct identity within the education spectrum. It meant that both the quality and quantity of TAFE provision could be raised. However, it also meant that, for the first time, the Commonwealth was intervening in TAFE policy and practice. This last development has had a significant impact on TAFE over the past twenty-five years (Goozee 2001, p. 10).

Goozee observes that the national funding arrangements recommended by the report brought TAFE into national focus for the first time. Moreover, the report assigned a broader remit to TAFE than vocational training. Ironically, however, that national focus saw VET cast later, in its post 1980s profile, via human capital theory policy, as an adjunct to the national economy.

The Kangan Report examined needs and priorities in TAFE and made a number of recommendations. The most significant of these pertained to funding. It placed TAFE as an integral, though distinct, part of the nation's education system, with a broad role in the development of the individual; that is, broader than purely the development of skilled manpower. Other themes of the report included providing opportunities for recurrent education to people throughout life, linking general and vocational education, creating pathways in education and training, allowing flexible delivery, and enabling research and data collection:

> The report recommended a shift in emphasis from that of seeing the prime purpose of technical education as being to anticipate and meet the vocational needs of the community to the International Labour Organisation (ILO), The United Nations Educational, Scientific and Cultural Organisation (UNESCO) and Organisation for Economic Co-operation and Development (OECD) views (Goozee 2001, p. 25).

Thus, the theme of general education was stated in this significant TAFE-centred iteration of VET. Its conception was holistic, turning on the notion of development of the individual, a significant factor in continuing discussion of the purpose of VET. The distinction in purpose of VET also held significance for funding determinations. The new national focus was cemented by the certainty that TAFE funding would henceforth derive primarily from the Federal Government, thus placing VET policy firmly within a national purview. Nevertheless, while espousing a holistic view of education, the move for TAFE to Federal funding brought the VET

sector into closer proximity with national policy interests, and the labour market policy environment. Subsequently from the mid seventies VET became more intimately bound with employment policy (Waterhouse, Brown & Burgess 2005/6, p. 5).

The national focus on TAFE, reflected in the establishment of ACOTAFE, flagged a renewed debate about general and vocational education that preceded the emergence of ACE as a distinct sector in its own right (Curriculum Corporation 2002). However, the duality debate around vocational and general education was not closed, nor was discussion of the related issues of equity and social justice in the provision of vocational and general education. Distinction between the two was not easily resolved. Marginson observed of later iterations in VET that "it recast the old dualism between vocation and knowledge" (Marginson 1993, p. 168). Dualism may be a useful notion in differentiating between vocational and academic, liberal or general education. Educational concepts, however, are typically multi-dimensional and not so easily disaggregated.

Though not envisaged at the time of the Kangan Report, VET delivery is now well established in schools, in ACE and in HE. In that sense, the divide between vocational and general education has shifted ground. In any of these education settings, different individuals might undertake the same VET course for different reasons that may, or may not, involve vocational outcomes. In cultural and creative domains, and clearly, for example, in the study of music, distinctions are less easily drawn between vocational, academic and general. Possibly, as indicated in Chapter Three, such differences are attached to the curriculum style, or tradition, of the sector in which the learning takes place rather than to the content of the learning.

2.2.2. Competency Based Training

The initial appeal of CBT seemed to rest in the promise of objectively measurable outcomes, apparently assured by the competency model. This was implied in an early definition of CBT:

> CBT is training geared to the attainment and demonstration of skills to meet industry-specified standards rather than to an individual's achievement relative to that of others in a group (Vocational Education 1992b).

However, this standards referenced approach, geared to industry outcomes, received a mixed reception. The range of discourses that supported, and opposed, the development of CBT reflected complex and diverse agendas across the education spectrum. Wide ranging critiques targeted CBT for its suitability as a basis for learning and assessment, the manner of its initiation, its place in formulation of education policy and the instruments of its implementation. Debate extended to vigorous discussion of the purpose of the VET sector, the consequences of

CBT for the VET sector and, through VET, with other education sectors. Indeed, CBT discourse marked the growing complexity of interrelationships across education sectors, as schools and HE become more overtly linked with VET and vice versa. The following brief sample of positions drawn from the CBT literature reflects, for example:

- *approval* – (Holland 1993), (Burrow 1993), (Gunning 1992) and industrial and government parties discussed below in this chapter. Assuming approval of CBT by development agencies (skills councils and industry training advisory boards) this abbreviated sample omits their contribution to the literature
- *qualified approval* – (Deer 1993), (Gonczi, Hager & Athanasou 1993), (Hager 1993), (Preston & Walker 1993), (Sobski 1998), (Topple 2003), (Willmott 2003)
- *scepticism* – (Stanley 1993)
- *disapproval* – (Beevers 1993), (Jackson 1993), (Stevenson 1992).

By 1993, beyond a vigorous policy position, early expositions of "key competencies" and a few nascent models of industry competency standards in development, implementation of the CBT system in Australia was yet to begin. Early opinion was of necessity based on CBT models from other countries, or earlier models of military and management applications (Chappell 1996) in (Pitman, Bell & Fyfe 1999, p. 9), rather than on a specific model for the Australian VET system. Nevertheless, by 1993 it was clear that the model could potentially bring profound change to the Australian education system.

A definition of the competency approach, and a rationale for a competency-based system of training, is found in the Carmichael Report, *The Australian Vocational Certificate Training System,* presented to the then Australian Minister for Employment, Education and Training Kim Beazley in March 1992. The following statement in the report distils the core rationale and intentions underpinning the introduction of CBT in Australia:

> Change is needed to improve our international competitiveness, to complement changes in work organization and industrial relations, and to improve the coverage, quality and equity of vocational certificate training in Australia.
>
> The focus of a competency-based training (CBT) system is on outcomes, the attainment and demonstration of specified knowledge, skills and application by an individual, rather than on inputs, such as time served (Carmichael 1992, p. vii).

Thus VET, industrial relations and industrial performance (individually and collectively), and national economic health were merged in a system based on the measure of competence. Training for the trades had long been the remit of the VET sector. However, joining the VET sector with international competitiveness cast VET as a critical agent of economic growth. This

was an ambitious leap for a sector formerly concerned primarily with training at local and, at times, regional levels, to one with a large share of the responsibility for the nation's prosperity.

Also stated in the report was the intention to introduce VET into school education through the inclusion of VET activities in the post compulsory years of schooling (Carmichael 1992, p. viii). Unsurprisingly, proposals to expand the profile of VET, in relation to the national economy and schools, triggered concern that CBT would encroach on school and HE curricula. The potential of this incursion increased existing disquiet that CBT would be the instrument by which VET would come to colonise education in Australia.

Segueing into the school sector, traditionally the gateway to HE, the *Carmichael Report* infringed the longstanding demarcation between the HE, VET and school education sectors. It directly challenged the hegemony of HE over the senior secondary curriculum where an academic focus had, to that time, primarily served the requirements of tertiary entrance for HE.

2.3. National Training Reform Agenda 1985–95

The combination of economic, industrial, educational and political factors that underpinned the adoption of CBT was not unique to Australia. Similar factors influenced both domestic and international conditions. Prime among these was the downturn in many national economies, including that of Australia, during the 1980s. Economically developed countries had, from the 1950s, enjoyed a relatively high standard of living. By the 1980s changing economic circumstances introduced profound uncertainty that sometimes drew dramatic and innovative policy responses. The already remarked national Training Reform Agenda was such a response. The sweeping reforms, agreed across all Australian jurisdictions, aspired to improve the economic position of Australian industry in the changing global market.

2.3.1. Convergence of industry and education

Economic pressures and training reform

Evidently, the comprehensive incorporation of the CBT model can be attributed to cultural, social and educational factors. Clearly, however, the economy was a most compelling influence in the trajectory and continuation of CBT as the main platform of the VET sector in Australia.

Impending economic events that emerged in the 1980s were flagged in 1973 when the Oil Producing and Export Countries (OPEC) doubled the price of crude oil. This had a major cost impact on production and transport in imported oil-dependent countries like Australia. As a

large though relatively thinly populated country, physically remote from global markets, the effect was magnified for Australia, spurring the need to structure its economic management to meet international circumstances. Smith and Keating identify the OPEC decision as one of the prime causes of *stagflation* (simultaneous high inflation and unemployment) in the Australia economy in the early 1990s (Smith & Keating 2003, p. 18).

Though not inherently triggering subsequent economic events, the sudden oil price spike prompted relatively economically developed nations to reconsider isolationist policies such as tariffs, industry subsidies, and other forms of government protection, commonly used to cushion deleterious effects of global competition on domestic economies. Providing comfort to employers and unions, protective practices had characterised Australia, a country whose population size posed limitations to domestic market growth.

Emerging global economic circumstances signalled that trade needed to be more outward focused for economic growth to be achieved in the changing world economic order. Advances in transport and communications technology progressively drew nations into closer proximity, opening access to wider markets for international trade. Multinational corporations were not new to the world of trade, having been part of European colonial history from the fifteenth century and into the nineteen fifties. That trade era, however, had been constrained by distance, established maritime trading routes and cultural and political relationships between occupying nations and their colonies. As a British colony Australia, for example, had enjoyed protected trading status with Britain.

By the 1960s the colonial era, and Australia's preferential trade status with Britain, had ended. Large international corporations, unconstrained by imperial ties, began to capitalise on advances in transport and communications technologies. Increasingly sophisticated marketing instruments and channels, formed through burgeoning advances in technology, allowed greater and more rapid penetration into international markets by enterprises that had developed the necessary economic and business capacity. As economists and commentators called upon nations to embrace market deregulation, so as to connect with the wider global economy, large corporations continued to flourish, ramping up commercial activity at the international level, a phenomenon that came to be termed market globalisation (Deardorff & Stern 2000, p. 8).

Australia's recognition of the need to eschew economic isolation in order to participate in global markets was manifest in a decision taken in December 1983, the first year of the Hawke Labor Government. Treasurer Paul Keating announced the deregulation of the Australian dollar, until then set by the Reserve Bank to the United States dollar. Up to that time Australia had favoured

a policy of buttressing local industries. To maintain high employment, many industries, especially manufacturing and agriculture, had been supported, even propped up, by the tariff policies of successive Australian governments. From the 1960s to the 1970s in a realignment of industry emphasis from primary to secondary production, Australian manufactured goods had been subsidised to replace cheaper imports. The political status enjoyed by the manufacturing industry made it a powerful voice in national policy development.

In any case, market globalisation triggered another wave of economic and industrial restructuring through the decade of the 1980s and in many industrialised countries these factors produced inflation combined with increasing unemployment. By 1987, lack of market confidence was reflected in an Australian stock exchange "crash". In retrospect, the infamous Keating pronouncement, "this is the recession we had to have", denoted a view of economic reality if not political sensitivity. Nevertheless, it was clear well before the stock market crash that new responses to national and international economic management were required. These were canvassed and expressed in a number of ways, including a greater interest in education and training as a part of a package of initiatives, giving voice to a new discourse of skills formation in response to global economic factors.

As the 1980s progressed the economy became an ever more pressing political imperative. By way of remediation at the macro level, interest became focused on opening up the Australian economy to become internationally competitive. At the micro level, it was focused on preparing the labour market for a more outwardly directed economy. Simultaneously, attention was drawn to tackling the more immediate impacts on the labour market. Among a suite of issues that emerged in the wake of industry re-structuring was the need for labour market programs and re-training for those whose employment was adversely affected, or at risk of being so. It was apparent that attention to training would be ongoing to meet continuing workforce requirements of the new economy, or at the very least, as a sign of action.

Australian government jurisdictions, national, state and territory, began to reflect a pattern of convergence between education and employment. This was reflected in the course of recurring alignments and realignments of government agencies. At the national level, for example, in 1987 when John Dawkins succeeded the then Minister for Education, Susan Ryan, he became Minister for Employment, Education and Training. By 1987 there was no equivocation about the relationship between education and the economy. The policy paper *Skills for Australia*, announced:

> The government is determined that our education and training systems should play an active role in responding to the major economic challenges now facing Australia (Dawkins & Holding 1987, p. iii).

Industrial pressures and the metals prototype of training reform

New economic circumstances brought an unprecedented alignment of former industrial adversaries. In stark contrast to traditional relationships among industrial parties, the impetus for broader policy approaches to economic and industrial change was largely union led. Ashenden (in Marginson), observed:

> Much of the agenda for training reform was set by the metal workers' unions within the ACTU. The ACTU's 'privileged relationship' with the Labor government secured support for the metals prototype of training reform (Marginson 1993, p. 153).

In 1982 Laurie Carmichael, former Communist Party of Australia member, and then Assistant Secretary of the Amalgamated Metal Workers' Union (AMWU), proposed that unions engage in tripartite industry planning and retreat from full wage claims in favour of a social wage (Brewer & Boyle Undated). Tripartite industry planning meant cooperative input from employers, government and unions. In 1983, influenced by this radically new industrial approach, the Hawke Labor Government, at the beginning of its first term in government, convened a national economic summit of government and industrial representatives to consider Australia's economic position and to inform policy for meeting the challenges of economic transition.

Peak employer bodies and unions, traditionally habituated to a state of conflict, found a common cause. Subsequently a series of "Prices and Incomes Accords" was negotiated with broad, though not unanimous, agreement by government, employer bodies and unions. Though, with successive iterations the Accord later drew increasing criticism on either side. The final iteration moved outside of the centralised fixing of wages and into the arena of enterprise bargaining (Brewer & Boyle Undated). Nonetheless, the Accord provided an exceptional symbol of a powerful consensus model.

In 1987 an Australian Council of Trade Unions (ACTU) delegation visited Sweden, Norway, Germany, Austria and Britain to investigate the potential of policy models in other democratic countries. The report of the delegation, *Australia Reconstructed*, endorsed the consensual tripartite model of the Accord (Australian Council of Trade Unions 1987). To that extent wage restraint by union members, though remaining part of an economic policy response, would not be the sole focus. Rather, it would be part of a more comprehensive policy mix around the

notion of a social wage. This would include wage indexation aligned with industry efficiencies, and consideration of prices and executive wages:

> Among its (Australian Council of Trade Unions 1987) policy proposals was a call for restraint of prices and executive salaries instead of just wages. It advocated the development of manufacturing … [and] called for better formation of vocational skills (Scott 2006, p. 3).

In this climate, approaches to wage setting took a new direction, and the metals union led in promoting skills, rather than time served, as a component of wage determinations. This was a radical departure from traditional wage fixing principles. In 1988, the Conciliation and Arbitration Commission adopted a package of wage fixation principles that included a structural efficiency principle, that is, "ensuring that working patterns and arrangements enhance flexibility and the efficiency of the industry" (Carmichael 1989). The package also referred to the ACTU "blueprint" and noted that care would be needed in separating "…wage issues from skill formation issues although the wage issues have been closely associated and act as a dynamic force for change" (Carmichael 1989).

From the paper, *Award Restructuring – the task ahead,* issued by the Minister for Industrial Relations in April 1989, in anticipation of a decision to be brought down by the Conciliation and Arbitration Commission, Carmichael noted, among other issues, the government's position on skills in the following extracts from the paper:

> **Simplifying Awards and Reclassifying Jobs**
>
> The new awards and associated arrangements should, where appropriate:
> - be simple and remove…out-dated classification structures and conditions
> - encourage new forms of work organisation and the development of a multi-skilled, adaptable workforce
> - provide for new classifications which encourage horizontal and vertical mobility within firms, allow for a broader range of functions and responsibilities and minimise lines of demarcation
> - establish career paths which involve successively higher levels of skill responsibility and pay, providing training incentives, wider career opportunities and higher levels of flexibility and productivity
> - include definitions of classifications which clearly establish the range of work required and the level of expertise to be achieved through training
> - make provision for competency standards and appropriate certification and accreditation arrangements
> - lead to complimentary training arrangements – both institutional and on-the-job.
>
> **Training for New Skills**
>
> Successful implementation of restructured awards will call for a number of training issues to be addressed, including:
> - improving the responsiveness of training systems to industry needs
> - progressive introduction of competency-based training

- developing articulated training and effective accreditation systems, to ensure that transferable skills are broadly recognised
- developing coherent and consistent training standards
- providing new means for sharing the costs of training, including paid/unpaid training leave
- developing effective mechanisms at industry and enterprise level for assessing training needs and skills development (Carmichael 1989).

Thus the potential role of CBT assumed momentum through its incorporation into the industrial relations system. It was executed in the wages case begun by the Amalgamated Metals Union and then generalised across industries by the Conciliation and Arbitration Commission in its adoption in 1988 of a package of wage fixation principles. The call for "definitions of classifications which clearly establish the range of work required and the level of expertise to be achieved" (Carmichael 1989) was of critical significance to the evolution of CBT. The requirement to determine different skills levels assumed a notionally hierarchical underpinning for the competency system.

Increasing levels of unemployment emboldened employers to require more of employees and of the education system. In turn, employee representatives became more eager to safeguard the employment of their constituents at this time of employment risk. Moreover, they believed that the provision of measurable and flexible performance benchmarks could allow employees to prove their competence for work in concrete measurable ways. These factors augured greater competition for jobs and promotions and urgency for a credible and accessible system of certification. This was presumed not merely to sustain jobs and employment, but also to provide measurable pathways for career advancement and to improve the overall quality and outcomes of labour. The notion of skills development as a focus of national policy was formed in this climate. Representations from influential employer peak bodies and sections of the union movement became more emphatic and persuasive in their demand for greater attention to the development of skilled workers. They also wanted greater emphasis on the development of skilled workers and for the education system to place greater emphasis on preparation for work.

It was envisaged that CBT would be integrated into a new bargaining system as part of industry restructuring. The immediate and broad acceptance of this idea by employers and unions rested on a belief by employers that it formed a fair system of fixing wages to performance and thus could be instrumental in mitigating wages conflicts. Unions were attracted to the possible availability to their members of promotion based upon successful and quantifiable improvements in performance, available through accessible training. It appeared that the elusive reality of consequent wage justice for all was at hand.

As CBT emerged, fused with the Federal Labor Government's new industrial package, enthusiasm by unions was stimulated by belief that a fair, universal system of training and assessment of workers would recognise competence, no matter how or where attained. This would lead to higher competency levels and consequently higher wages. On the question of financial reward for advancement through competency levels, a warning salvo was fired by Bernie Fraser, then head of the Reserve Bank, who cautioned that industry could not afford wage rises that were not fixed to measurable productivity increases (Australian Broadcasting Commission 1994).

On the issue of training intensification Marginson drew a parallel to earlier false predictions, founded in human capital theory, that an increase in the number of HE graduates with higher levels of academic achievement would bring about an expansion in the economy (Marginson 1993, p. 37). The guiding principles favouring CBT, and merging VET with employment issues more generally across the education spectrum, however, were based on a more enduring view. Thus, attention would focus on the level and quality of qualifications held across the workforce generally to attain an appropriately skilled workforce to take up opportunities for achieving national prosperity in the post-industrial, knowledge-based global economy.

For competency supporters the anticipated outcome was not focused on individuals. It had a more collective bent – enhanced national growth and productivity to make Australia more competitive internationally – so that the standard of living could be maintained and improved. CBT was also to be a means of:

- creating flexible training pathways
- enabling national portability of skills
- fostering credit transfers between courses and institutions, (including between TAFEs, work sites/places and universities)
- integrating course accreditation procedures
- allowing multiple entry and exit points
- integrating of on and off job training
- fostering Recognition of Prior Learning (RPL) / Recognition of Current Competence (RCC)
- encouraging mid career training and training for career change (Arts Training Australia 1992).

Educational pressures and the metals prototype of training reform

As the lynchpin for launching CBT into the Australian industrial scene, the tripartite model of government, employer peak bodies and unions instigated its development into a reformed national VET system. Unsurprisingly however, the notion of CBT as the "metals prototype" hindered ready acceptance into the education culture, rather, serving as a rationale for resisting the competency "movement". It was argued that the metals industry, rightly perceived at the time as a leading, or at least highly privileged, party to the discussion, was not the appropriate body to formulate national education policy. This antipathy was exacerbated by an apparent lack of educational representation in the tripartite model that led these important national educational policy discussions.

Still, given a growing deficit in sustainable job prospects, industry peak bodies emphasised the need for appropriate learning for an expanding post-compulsory school age student cohort to remain at school. Thus, not surprisingly, politicians and policy makers fixed their gaze on the link between employment and education and training, turning their attention to the post-compulsory years of education. The argument that more employment directed education was not going to create employment was subsidiary to the more expansive policy aim, which was to provide the workforce with the skills to meet the demands of the post industrial global economy.

Long-term skills formation policy aims meshed with a dramatic reduction in full time work opportunities for 15 to 19 year olds (Marginson 1993, p. 12). The consequence of diminishing employment prospects, for students in the post compulsory school age group, meant increasing retention of students past the compulsory years of schooling (Marginson 1993, p. 13). This resulted in a more diverse senior secondary school cohort. From the mid 1980s, as greater numbers of young people were unable to find employment on achieving the school leaving age, the number of students remaining at school into the post compulsory years increased annually. Thus a broader population base with more diverse needs, interests and aspirations emerged at the senior school level.

These new circumstances challenged the long-held dominance of university concerns on high school curriculum and certification processes. The post compulsory years of high school had been geared to the selection processes of universities and an academically oriented curriculum that had served the majority of students to that time. Now schools began to face increasing segmentation in the senior secondary years. This required consideration of the provision of broader curriculum choices to meet the more complex range of needs and abilities. Hence, while

curriculum still needed to be relevant to students who were focused on a higher education pathway, it also had to expand its scope to be relevant to those who were not, so that they too could prepare for school transition, embracing further learning and/or sustainable employment.

Change in the vocational focus for post-compulsory school years, from university preparation to life or work preparation, required a major shift from focusing on vocational preparation for the professions – via university – to a more inclusive response to recognise the increasingly diverse needs of students requiring an expanded range of pathways to work. Support was needed to include students who may proceed straight into employment, or to VET courses with a TAFE or other VET provider, or to apprenticeships and/or traineeships.

From the perspective of the VET sector, a number of themes began to emerge. The industrial and economic context posed an emerging skills formation agenda. Senior secondary education faced a newly minted post-industrial setting. Students over the legal mandatory school leaving age faced diminishing immediate post school employment prospects. Nevertheless, aspirations towards higher education remained undiminished.

Post school employment opportunities decreased and vocational prospects became increasingly bleak for students not pursuing an HE pathway. Thus increasing competition for jobs cast a new emphasis on credentials as employers had a broader labour market pool on which to draw. Marsh observes of the 1985 Report of the Quality of Education Review Committee (QERC) chaired by Professor Peter Karmel:

> The QERC report represented a fundamental paradigmatic shift in that it focused on outcomes priorities for schooling. Thenceforth, future expenditure on schools would be undertaken only through negotiated resource agreement, linked to specific policy objectives…economic issues now began to dominate government thinking and education was linked directly to economic development (Marsh 1994, p. 39).

Thus it was signalled that schools also would be co-opted into the skills development agenda.

2.3.2. The policy framework

The formulation of CBT policy and its realisation in the VET system can be traced through a constellation of reports and policy forums, typically initiated through the Training Reform Agenda. The substance of these initiatives reflects the, already delineated, complex considerations that brought pressure for VET reform, and for change to schools' curriculum.

The Finn, Carmichael and Mayer reports were commissioned to investigate the development of certification systems. These were primarily concerned with work preparation for the fifteen to nineteen-year old post-compulsory education cohort. Nevertheless, in combination they made

important contributions to discussion leading to the formation of a new infrastructure to manage and implement CBT. It was in this work that key competencies were identified, and though ultimately not fitting the purpose for which they were designed, they provided a marker for the competency discussion that led later to the development of industry competency standards.

The Finn Report

Meeting as the Australian Education Council (AEC), federal and state education ministers convened the Finn Committee in December 1990. Named after its Chair, Brian Finn of IBM, the Finn Committee was to study and make recommendations on education for the fifteen to nineteen year old age group (Marginson 1993, p. 156). Submitted to the AEC in July 1991, the opening point of the Finn Report's Executive Summary dealt with the "Convergence of General and Vocational Education" (Finn 1991, p. x).

As the Finn Report focused on the area of immediate post-compulsory education, the years in which young people make vocational decisions, it concerned itself with the link in these years between school and work. The effect of this focus was twofold. First, it gave emphasis to the vocational aspect of education in the post-compulsory years. Second, it viewed this stage of education from the perspective of industry's needs. This was a retreat from the erstwhile academic raison d'être of the final two years of school, that had been to achieve a high academic score determined by University requirements. There was concern that this refocusing of senior secondary education lurched towards another extreme, vocationalisation of education.

Some concern was justified, especially in the area of equity for post-compulsory education. There was a view that the outcome of this vocationalisation of post-compulsory education would be that students from non selective state schools would be streamed into the "trades", while those in selective or private schools would continue to focus on the academic curriculum, qualifying them to proceed to university education, thus being streamed into professions. Clearly post-compulsory education was increasingly retaining students who would formerly have taken up full-time paid work. This made university matriculation less appropriate to many students now remaining at school beyond the post-compulsory years.

The Finn Report attempted to deal with the reality of the new captive senior school audience that remained at school due to decreasing employment opportunities for fifteen year olds. To address the needs of this new educational clientele, the Finn Committee Report tied in the national objectives of the CBT movement with post-compulsory accreditation at three levels. These were, at level one traineeship or participation in year 12 for all 18 year olds by 1995.

Then, at level two a traineeship, or progress towards a higher level vocational or academic qualification for almost all 20 year olds by 2001. Then, at level three a vocational certificate or progress towards a vocational qualification above level three or a diploma or degree for at least 50% of 22 year olds by 2001. The Report recommended that all under 20 year olds be guaranteed two years of school or vocational training after year 10 and that a consequent new entry level-training system "should provide high quality education involving general vocational as well as occupation-specific competencies" (Finn 1991, p. xi). In retrospect those targets have proven fanciful.

The Report recommended that, regardless of which education track students follow, six defined employment-related key competencies should be obtained. To facilitate this outcome a standards framework was to be implemented in combination with the Australian Standards Framework, (ASF), developed by the National Training Board (NTB). These employment-related competencies, later to be called the "key competencies", were specified as:

- language and communication
- mathematics
- scientific and technological understanding
- cultural understanding
- problem solving
- personal and interpersonal characteristics.

This would provide "new ways for industry to clarify its expectations of young people and the educational training system" (Finn 1991, p. xii). Recognising the importance of general, as well as vocational education, the Committee's recommendations on Curriculum Principles and Key Competencies included, "… the talented should be challenged to extend themselves fully. Vocational Education and Training must meet the needs of industry as well as meeting national standards and promoting a higher level of general education" (Finn 1991, p. xix). "General education" was not defined in the report and there were no suggestions concerning how VET would "promote a higher level of general education". Paradoxically, the Committee suggested that TAFE consider dropping its stream 1000, or recreational courses, and run a media campaign to improve the image of TAFE in the community (Finn 1991, p. xxviii).

While somewhat coy about the role of universities, the Finn Report recommended that some improvement be made to better integrate pathways across schools, TAFE and HE (Finn 1991, p.

xiii). Both the Business Council of Australia and the ACTU endorsed the Finn Committee's recommendations (Marginson 1993, p. 157).

The Carmichael Report

Building on the Finn Report, the federal government's Employment and Skills Formation Council (ESFC), chaired by Laurie Carmichael from the Finn Committee, focused its attention on merging the trainee and apprenticeship systems into a new Australian Vocational Certificate Training System. Concentrating on post year 10 students, who would have been in full-time employment or otherwise unemployed, the Carmichael Committee recommended a formal mix of work and training to be negotiated with employers. This would involve a training wage based on the level of competence achieved and time spent on the job. The committee proposed that existing labour market programmes should be incorporated into the new system (Carmichael 1992, pp. vii-x).

Like the Finn Report, the Carmichael Report recommended revising the location and delivery of education to post compulsory students. It proposed a more mature environment, modelled on existing separate senior school campuses in Tasmania and the ACT, but offering a post year 12 vocational year. The report also made recommendations on gender equality. Most significantly, the Carmichael Report focused on initiating the development of a comprehensive system of entry-level vocational training based on Competency Standards, or levels of skill (Marginson 1993, p. 158).

The Mayer Report

The Mayer Committee was more representative than its forerunners, comprising twenty-seven members from school and training sectors in each state and territory and the federal government, unions and the business community, teacher organisations, Catholic education, HE and the NTB. Eric Mayer, formerly CEO of National Mutual, chaired the Committee (Mayer 1992a, p. 2). It first met in September 1991 and was commissioned to report to the AEC and Council of Ministers of Vocational Education, Employment and Training (MOVEET) in July 1992. The Committee was to define "the Key competencies and to develop 'profiles' to inform curriculum development and teaching and to provide a basis for nationally-consistent assessment and reporting" (Mayer 1992a, p. 3). Laurie Carmichael, Chair of the ESFC, and Alan Houston, of Coles Myer Ltd, from the Finn Committee, were co-opted onto the Mayer Committee for the sake of continuity.

Consultation led the Committee to conclude that there was broad support for the concept of Key Competencies. Nevertheless, many schools expressed a need for more information and assurance that the national initiatives in education and training were being effectively co-ordinated (Mayer 1992a, p. 4). To defend the Employment-related Key Competencies against charges of behaviourist implications the Mayer Committee claimed that:

> Competence can be defined narrowly to mean the demonstrated capacity to do a specific task, and even more narrowly by detailed specification of the conditions under which performance of the task is to be demonstrated. In definitions such as this the term competence is sometimes used interchangeably with skill and generally distinguished from knowledge and understanding. The Committee has rejected narrow behaviourist definitions of this sort (Mayer 1992a, p. 4).

To assuage the justifiable fears of school educators that the senior school curriculum might be relegated to achieving only outcomes specific to employment – that is, colonised by industry – the Committee stated that Key Competency Strands "are essential for effective participation in work and other social settings. [But that]...they focus on the capacity to apply knowledge and skills in an integrated way in work situations" (Mayer 1992a, p. 8). Further, under the heading of *Characteristics of the Key Competency Strands,* a qualification arises in the distinction between "social setting" and "general education":

> The set of Key Competency Strands is intended to embrace the Key Competencies essential for effective participation in work. They do not and are not intended to encompass the full range of outcomes of general education (Mayer 1992a, p. 11).

In considering the Finn Report and submissions garnered through its own activities, the Mayer Committee converted the Finn notions of Areas of Competence into a more applied series of Key Competency Strands amenable to specific assessment and recording. The Report explained that while the Key Areas of Competence, outlined in the Finn Report, contained the Key Competency Strands, each (Mayer) Strand draws on a number of Finn's identified Key Areas. The Key Competency Strands were outlined as follows:

- Collecting, analysing and organising ideas and information
- Expressing ideas and information
- Planning and organising activities
- Working with others and in teams
- Using mathematical ideas and techniques
- Solving problems
- Using technology (Mayer 1992a, p. 8).

In assessing the Key Competency Strands there would be three or four levels of performance. Performance levels comprised the structure of CBT, wherein employees may proceed through a maximum of four levels, in the relevant competency. It was assumed that not all employees would achieve level four, although the idea of competition to move through levels was not dealt with in any of the then current CBT literature reviewed in this research. Competition does not seem to be an explicit issue with the CBT movement. In the area of post secondary education three levels were suggested. As with its predecessors the Mayer Committee recommended that levels of competence be set up using the ASF as a reference point (Mayer 1992a, p. 13). The committee viewed its Key Competency Strands as generic, i.e., with a general application across industries.

Out of the Mayer Committee's "proposal for consultation" came a second document, *Putting General Education to Work* (Mayer 1992b). This document elucidated the expanded role of general education in entry-level training (Mayer 1992b, p. forward & conclusions), and compared Australia's initiatives in vocational education goals with those of the United Kingdom, the United States and New Zealand where, the Report states, there are more similarities than differences in establishing vocational education policy (Mayer 1992b, pp. conclusions, 10). The question of formal credentialing for the post-compulsory years was identified as an area for further investigation for which a working party was then already underway, in that: "The deliberations of this working party will need to be taken into account in establishing the relationship of the Key Competencies to education and training credentials" (Mayer 1992b, pp. conclusions, 48).

Also identified for further deliberation was the need to integrate Mayer's Generic Competencies with those articulated by the industry bodies so that, "Key Competencies and their required performance levels can be located within national industry core competency standards" (Mayer 1992b, pp. conclusions, 49). The Key Competencies provided a model for later development of national industry competency standards. Finally, recommendations for further development included continuing validation and benchmarking of the performance levels, field-testing, implementation and staff training and development (Mayer 1992b, pp. conclusions, 55).

The Mayer Report, in its generic approach to the specified Key Competencies, reflected a more sophisticated approach to questions about learning than had any of its predecessors. Nevertheless, it pertained essentially to school leavers. Mature models of industry competency standards covering skills for actual workplace activities were yet to be formulated.

ACTU critique of the Mayer Report

Mayer's concern with avoiding the behaviourist tag and preferring a generic model caused the ACTU to take issue with what it saw as too rubbery an approach:

> In appreciating the enormity and complexity of the task, the ACTU is concerned that the Committee has come up with a model which is extremely difficult to comprehend. This is a problem the Committee will have to address. If the model is too academic and too removed from the realities of industry it will be rejected as unworkable. In this respect the ACTU does not believe the academic nature of this first consultation document will have assisted in fostering a wider understanding of the issues (Australian Council of Trade Unions 1992, p. 3).

This opinion also reflected a core concern of the ACTU, that development of competencies be industry-led and further, that all competency work, including that of employment related generic competencies for young people of school leaving age, needed to be undertaken in closer dialogue with industrial parties. This would be unions, employer bodies, and government agencies such as the NTB and its working parties (Australian Council of Trade Unions 1992, p. 12). The ACTU saw any potential academic approach as a barrier to the introduction of the metals prototype into the education system.

Notwithstanding this tension, the Finn, Carmichael and Mayer Reports had identified and articulated important systemic issues for education and training reform, ultimately with the benefit of expert input from education and industry sectors. From the perspective of CBT these committees, in identifying key competencies that could serve as generic employability indicators, had generated an elementary, though concrete, competency model for the Australian industrial training context.

2.3.3. Overseeing implementation of the Training Reform Agenda

The National Board of Employment, Education and Training (NBEET) was formed in 1988 to work to DEET, and the Minister, on policy across education sectors. NBEET established a series of committees to represent the various education sectors. The ESFC was one of these. Chaired, as already noted, by Laurie Carmichael, the ESFC had been formed to advise on policy for the VET sector and joining VET with the post compulsory years of schooling.

As indicated earlier, in relation to the Carmichael Report, the ESFC was active in the early phase of the training reform agenda especially in the *Australia Reconstructed* initiative and in developing conceptual frameworks for CBT. However, as also noted, initial statements about how CBT would work appeared to be somewhat complex. For example, initially competency standards were to operate at three levels; first, the enterprise level which could set competency

requirements for people relevant to a particular enterprise, (job and worksite specific competencies); secondly, the industry level which could set competency requirements common to an industry or sector of an industry expressed in a way relevant to the general requirements of enterprises in the industry, and; thirdly, the cross industry level – across two or more industries:

> These can be drawn on for the development of standards at the other two levels to enhance commonality. There are also general/generic competencies that were considered to underlie all work, such as the Mayer Key Competencies (National Training Board 1993a).

The National Training Board 1990

In 1990, the federal government, in agreement with the states and territories, through the MOVEET, set up the NTB specifically to progress the CBT agenda through initiation and endorsement of competency standards development activities at the national level.

> A Special Ministers' Conference on Training in April 1989 committed all States and Territories to work towards the introduction of a competency-based training system, expanded to include non-trade areas. The conference also endorsed the establishment of the National Training Board. The NTB was duly formed as an incorporated tripartite body which has responsibility for ratifying nationally consistent, uniform, competency standards developed by industry.
>
> …The NTB has also established an Australian Standards Framework [ASF] which will provide reference points for the development and recognition of competency standards (Vocational Education 1992b).

Thus, through MOVEET, all Australian governments agreed to a national approach to VET based on CBT. The proposal to develop national competency standards "to include non-trade areas" sanctioned the implementation of an Australia-wide competency-based system for the VET sector, with profound change implications for the content and manner of VET delivery. It also signified a transformation in the scope of VET that came to have significant practical relevance for those industries that would contribute to the development of competency standards. While the metals industry was the first to take up the challenge, emerging service and cultural markets in the new economy, such as the music industry, were to follow, along with other non-trade, or at least non-traditional technical and cultural areas.

The Kangan round of reform had expressed the broadening of TAFE's scope as continuing to provide trade training and other vocational preparation, while still attending to the general educational needs of its students. This post-Kangan statement, however, signalled a radical shift for the VET sector, with a more active focus on employment-related skills development informed by industry. Attention was refracted from general education to industry-led skills development.

The Training Reform Agenda thus expanded the scope of VET provision to more closely align with the skills development needs of the new global market environment. CBT, "the metals prototype", was the vehicle chosen to forge a comprehensive systemic reform for the VET sector. CBT came to be considered the appropriate instrument to prepare a more flexible and skilled labour force/market for Australian industry to draw on for responding to economic transformation.

The NTB was to be responsible for recognising Competency Standards Bodies (CSBs) and overseeing Competency Standards development that would be initiated at the national level. The NTB published its first statement on National Competency Standards in 1991, with a second edition in October 1992 (Slee 1992). The tripartite structure of the NTB included representatives of each of the nine Australia government jurisdictions, two industry representatives, and two ACTU representatives. Implementing the national industry-led reform agenda for VET, CSBs were set up under the NTB to undertake the formulation and documentation of national industry competency standards and present these to the NTB for approval. Industry Training Advisory Bodies (ITABS) were the main CSBs. They were set up as national bodies, mostly with affiliated state bodies, though unequally funded at the state level (Butterworth 1993, p. 27), to represent specific industry clusters. Their primary task was to engage their industries in standards development projects.

At the federal level CSBs were largely funded on a project basis through the NTB under delegation from the Vocational Education, Employment and Training Advisory Committee (VEETAC). VEETAC was responsible to MOVEET for meeting a target of substantial progress towards implementation of CBT by 1993 (Vocational Education 1992b, p. 2). The NTB also had responsibility for the ASF that set the levels at which the national competency standards were to be developed. Echoing the intention of the paper, *Award Restructuring – the task ahead,* issued by the Minister for Industrial Relations in April 1989, the ASF set down levels at which competency standards would be developed, provided a mechanism to classify skill levels that could align institutional training with actual workplace requirements, and contributed to certification and accreditation to enable complementary institutional and on-the-job training arrangements.

The ASF, precursor to the Australian Qualifications Framework, incorporated eight skill classification levels. These were distributed between vocational and professional levels. The NTB was to oversee and coordinate the development of industry competency standards by the ITABs across a range of industries for levels 1 to 6. The higher levels were deemed professional

skill levels and were assigned to the National Office of Overseas Skills Recognition (NOOSR). NOOSR had been established to manage the recognition of qualifications for people residing in Australia who sought to have their overseas qualifications recognised. NOOSR was primarily concerned with professional qualifications, though it was also charged with developing competency standards as a basis for assessing professional skills gained overseas. It was not ultimately successful in that endeavour, however, largely due to the differences in approach of the professions:

> The higher the status of the profession, the more the professional association became the key decision-making group. The Australian Vice-Chancellors' Committee said that the professions were free to opt for CBT if they wished, but the ASF should not be used in relation to university courses… (Marginson 1993, p. 155)

Thus, for the time being at least, the professions and HE on the whole were able to avoid engagement with CBT in their education programs.

The Australian National Training Authority 1992

Labor governments were in office in most jurisdictions during the earlier part of the federal Labor Government's term and those jurisdictions were relatively sympathetic to the centralist approach being taken towards VET (Smith & Keating 2003, p. 32). In 1992, with the agreement of the states and territories, the federal government established the ANTA, under the ANTA Act 1992, to prepare for its formal inauguration, though that did not take place until 1 January 1994. In the interim the NTB continued in operation.

The ANTA MINCO was established, comprising the federal and all state and territory ministers with responsibility for VET, to provide oversight and national policy direction. Thus ANTA supported representative participation across jurisdictions to maintain consensus in implementation of national arrangements for the training reform agenda. Under ANTA MINCO, ANTA was to provide policy direction and make funding decisions to focus and drive the national training reform agenda. It was also responsible for the administration of national programs and federal funding for the national VET system. The ANTA Board was to be industry-based.

ANTA's initial brief was to prepare a national strategic plan for 1993-1995, setting directions for the delivery of training and the allocation of funds. The ANTA mission statement for 1994 stated four priorities for its work in the VET sector:

- to build a client focussed culture

- to create and promote opportunities for lifelong learning
- to advance a national identity for the system
- to reward innovation and best practice approaches (Australian National Training Authority 1995).

Client focus and a national identity for the system signified a strong entrepreneurial role for ANTA in promoting the training reform agenda. This gave it a credible national profile in managing further policy development and meeting competency standards development targets. Marketing was to be a priority, and the adoption of a less bureaucratic voice in the ANTA statement of priorities indicated a new phase for the training reform agenda. The reference to lifelong learning also marked a more individualised message. Nevertheless, in this context,, the notion of life-long learning might be viewed within a VET perspective as continuing vocational learning. This aspect of the Training Reform Agenda reflected the need for continuous development of work skills to meet the requirements of accelerating change in industrial and market contexts.

The formation of ANTA with its own Ministerial Council brought focus to the task of training reform and the promise of greater clarity to what had been described as:

> ...a field day for bureaucrats. VEETAB (Vocational Education, Employment and Training Accreditation Board) working parties, contracts of training, approval mechanisms and records for employers and employees, competency schedules, assessment set up and recording, prior learning records and assessment, competency recognition bodies, certificates of competence, legislative amendments, consolidated competency records, training capacity surveys, regulatory procedures and the allocation of training responsibilities... Their cost will be staggering (Butterworth 1992, p. 23).

The Training Reform Agenda had indeed generated a prolific spate of publication by committees, training organisations, government departments, academics and other interested bodies and individuals. Further, much of it was formulated in the absence of a comprehensive, or verified model of CBT. Additionally, the privileged initiating role of the ACTU with its metals prototype did little to promote ready acceptance of what was potentially a profound and lasting change to the VET sector, and by implication to other sectors, presenting an ominous threat not only to VET professionals, but also to professionals in the schools and HE sectors.

Evidently, the Training Reform Agenda was essentially a top down approach. It seemed to critics that the assumption that competency-based reform would enhance Australia's business performance, and consequently Australians' standard of living, had not been questioned. Nor had CBT been validated in any government, industry or union report during its introductory phase of the early 1990s. Essentially, evidentiary research was not available to support the

veracity of CBT outcomes. Neither was it clear, given that this was a radical new policy, that economic considerations formed a legitimate basis for such radical change to Australian education. Although CBT was in essence a leap of faith in terms of "objective" appraisal, it was nonetheless clear that it enjoyed great appeal with government and industry.

ANTA inauguration 1994

In 1994 MINCO agreed that the responsibilities of the NTB should be subsumed within the ANTA structure into a new body, the Standards Curriculum Council, to be responsible for competency standards, curriculum and the VET components of the AQF and recognition of training (Australian National Training Authority 1995). At that meeting MINCO also agreed to the formation of a "National Structures Transition Team… to develop proposals for the functions to be undertaken by the new body especially in providing for national co-ordination and implementation of the National Framework for the Recognition of Training" (NFROT) (Diplock 1995, p. 19). As indicated by the title, Standards Curriculum Council, to that date delivery of CBT was to depend upon the accreditation of nationally recognised curriculum/courses based on industry developed competency standards.

The AQF was established by MCEETYA and was phased in from 1 January 1995 over a period of five years. An AQF Advisory Board (AQFAB) was also appointed to oversee the development and implementation of the AQF (Australian Qualifications Framework 2007). The AQF now has fourteen levels, including the Senior Secondary Certificate of Education, then VET and HE qualifications. As in the ASF, the AQF has six qualification levels for VET, from Certificate I to Advanced Diploma.

A 1994 review of ANTA provided recommendations to inform MINCO decisions. The review also noted that it was difficult to draw clear lines of accountability for the implementation of training reforms, and that the recommended national structure should provide links in the competency standards / curriculum / accreditation / quality assurance chain that the review had found to be missing (Diplock 1995, p. 21).

2.4. The Australian Training Framework 1996–2005

At its meeting of July 1996 under a new federal coalition government, MINCO determined to establish a new ANTA body, the National Training Framework Committee (NTFC) to replace NFROT and the Standards and Curriculum Council (SCC). The NTFC was to have strong industry representation and operate under the Australian Recognition Framework. A core task

of the NTFC was to oversee the policy for the development and endorsement of Competency Standards and Training Packages.

The new coalition government did not dismantle the fragile national VET system, though the Training Reform Agenda, as the then term for the maturing national VET arrangements, became the National Training Framework. Inevitably, new tensions emerged among the jurisdictions as the new training framework took industry to mean employers. Predictably also, new projects and committees had less union representation and more employer representation, The ESFC, for example was decommissioned, along with NBEET, as being superfluous to requirements (Juddery 1996, p. 6).

The innovation of Training Packages was a significant feature of the continuing ANTA framework and proved to be instrumental as the link in the competency standards / curriculum / accreditation / quality assurance chain. In the Training Package format, the industry competency standards were packaged into qualifications according to the six VET levels of the AQF. As well industry assessment guidelines were provided to prescribe how assessment would be implemented in individual Training Packages. A more detailed analysis of Training Packages is included in Chapter Six. The NTFC endorsed the first of the Training Packages in 1997.

Under the federal coalition government the work of ANTA continued and successive ANTA agreements were negotiated with the states and territories up until 2005. In 2002 the framework underwent a further renovation with the introduction of the Australian Quality Training Framework (AQTF) to replace the ARF. The AQTF involved national recognition and regulatory arrangements, under a revised set of standards for registering and accrediting authorities, to assure national recognition. While VET remains the responsibility of the states and territories under their enacted legislation, the state and territory training authorities agreed to the national arrangements of the AQTF and up until 2005 continued to meet as MINCO.

2.4.1. Abolition of ANTA 2005

In October 2004, the federal government announced that the responsibilities of ANTA would be transferred to the Australian Department of Education, Science and Training (DEST) from 1 July 2005. The Ministry for Vocational and Technical Education was then established as an adjunct to the DEST. A new Ministerial Council was also established, the Ministerial Council for Vocational and Technical Education (MCVTE). Change continues apace in government, industry and bureaucratic arrangements for VET, while Training Packages continue to prevail as the vehicle for CBT.

2.5. Conclusion

CBT emerged as part of a suite of strategies to address economic uncertainty. Its genesis was in the metals industry. For its perceived peak stakeholders, government, industry associations, employers, unions and employees, the competency model emerged as a partial remedy to ingrained industrial problems. Business saw CBT as a means of ameliorating industrial conflict, having access to skilled employees, and reversing a perceived deficit at all education levels in preparing students for work. Unions saw CBT as a means to a fairer and more transparent system of training and remuneration, based on demonstrated skills. Governments saw CTB as an important part of policy to restructure industry while maintaining industrial co-operation.

Evidently CBT has not delivered on all of those great expectations. Industrial problems persist in response to market exigencies. Training has to be funded, a problem for governments when industry is reluctant to pay. Endemic problems in VET cannot be "cured" by a new system, especially one that was promulgated with little preparation for those who must implement it.

Nevertheless, nationally agreed qualifications, derived from Training Packages, though perhaps not the anticipated ideal, provide for common ground. Further, as indicated later in this study, CBT remains a work in progress, and as long as it prevails, it is likely to be ever thus.

3. Music genres and learning cultures

In this chapter learning, creativity and competence are reflected primarily through the lens of music education. The broad reach of music education in Australia expresses a critical setting for the case study. Placing VET in the wider educational scheme, this enquiry into music education takes in different music cultures and education sectors, and relationships between them.

Analysis of associations between learning and creativity emerges in this general discussion of music education and tensions across sectors are found in notions of excellence and competence.

Given the surging interest in creativity and innovation, comprehensively elaborated in Chapter Five, music, a pursuit evidently involving "hand, heart and mind", offers an enticing and seemingly enigmatic pedagogical study of creativity. Being core to the case study, analysis of creativity and competence falls readily into the educational remit of this chapter.

Informed not only by the broad education literature and that more closely pertaining to music education, the chapter is also informed by the findings and discussion of previous and subsequent chapters. Specifically, there are the socio-political exigencies of CBT and creativity explored in the previous chapter. There is the investigation of creativity across prominent domains and discourses elaborated in Chapter Five, and into creativity in the popular commercial music industry in Chapter Six. Then, there is the close examination of CBT case study items selected from the *Music Industry Training Package 01* (CREATE Australia 2001).

3.1. Distinguishing classical and popular music genres

As demonstrated through this chapter, the distinction between classical and popular music no longer holds as hard and fast. Yet, at the same time, neither is it remarkably fluid, though apparently it is becoming more so. Inevitably, to describe music in such binary terms, categories, or genres as popular and serious is to grossly misrepresent both the multi-dimensionality and synthesis that shapes embodied musical experience. Evidently, the functions and mores of music, and the diversity of music practice, infuse humanity in infinite manifestations of forms and musical languages, arguably on a par with the diversity and ubiquity of speech and language, or visual arts. Nevertheless, the reluctant predicament of the present binary reduction between popular and classical music is obviated by the need to focus on the question of creativity in the present study, that is, in the context of popular music. Thus, in the interest of navigating the relentless turbulence presented by seemingly perpetual variation

in educational policy and practice, and in the multifarious and complex worlds of music, some simplification must be entertained.

For the purpose of this project, as indicated earlier, the terms classical or art music and popular music are understood to be in the Western musical tradition. Of interest in this exploration though, again as remarked earlier, while art music and popular music tend to be associated with particular educational sectors in the Australian educational spectrum, in fact neither style is actually excluded from any one of the formal education sectors. Examples of each, and indeed many other musical forms outside of that binary set may be found in VET, Schools and HE. Nor, indeed, are they excluded from the ACE or Early Childhood sectors. Manifestly, the skills required for different kinds of music practice might be expected to be distinct. The sound forces, repertoire, technologies and cultural norms of a rock group, for example, and the skills required for performance are qualitatively different to those required of a classical ensemble. Likewise, both are evidently qualitatively distinct from jazz or folk ensembles, albeit possibly in varying measures.

To that extent, though cultural universals or absolutes are not implied, let alone conceded, broad foundational Western music cultures bear examination. Happily this study does not call upon aesthetic judgement as to the relative merits of different music genres or styles, a treacherous subject in any case, though best approached with some understanding of the broader aesthetic implications. While closer consideration of such interesting realms as fusion of classical and popular styles falls outside the purview of this study, it seems relevant to speculate that music combining classical and popular elements is, in the main, likely to be constructed or synthesised by artists of different forms working together. That is to say, rather than individuals moving from popular to classical styles, or even from classical to popular styles. Nevertheless, instances of the latter are not difficult to find, immediate examples being, English pop group *Queen* (Queenonline 2011), and Australian pop vocal group *Human Nature* (Sony 2011). In the case of popular artists, many instances of performance involving symphonic orchestras with popular guest artists can be cited, such as Sting performing with the Sydney Symphony Orchestra (Sydney Symphony Orchestra 2011), or Neil Finn with the Australian Chamber Orchestra (Australian Chamber Orchestra 2011a). Though a rarer phenomenon, examples can also be found of rock musicians becoming classical musicians, such as Australian tenor David Hobson and Estonian composer Erkki-Sven Tüür (Australian Chamber Orchestra 2011b).

The adaptation of music from the classical repertoire by popular artists is replete with creative examples. Janis Joplin's transformative interpretation of the aria *Summertime* from the George

Gershwin opera, *Porgy and Bess* (Joplin 1969), is a prime example. That aria, though itself from a contemporary American blues sounding opera, has traditionally been performed in the operatic style by classically trained opera singers. Though such fusion may characterise creative practice more rarely in popular music, nonetheless, until quite recently in the history of music education the notion of an educational pathway in music that could begin in the VET sector and somehow knit up with the HE sector would have been improbable. This was especially so given that, until quite recently, on one hand negligible attention was attracted to music training in the VET sector, while on the other, the practical study of performance in contemporary popular music, that is, beyond the more scholarly ethnomusicological purview, was intrinsically alien to the HE sector. Indeed, as discussed later in the chapter, to say that HE continues to demonstrate an inconsistent approach to performance would be to understate the case.

In any event, though an extreme example, it would be stretching credibility to consider a skills pathway for a successful heavy metal guitarist, with no classical background, encompassing transition into classical guitar performance in the space of an individual professional life. These different styles, to call upon Boden's premise elaborated in Chapter Five, might best be understood as existing in discrete, if related, dimensions of cognitive space (Boden 2004).

Evidently, individual and collective manifestations of creativity, germane to the cultural and creative milieu, apply most especially in the domain of music. A rather prosaic example, remarked in Chapter Five, is the perception and appropriation of a jazz group improvisation model as a best practice exemplar for the strategic escalation of business team building processes. Evidently, such transitions imply cultural shifts, in this case from the domain of music to that of business. Given Boden's conception of cognitive space (Boden 1996), (Boden 2004) detailed in Chapter Five, if that model can be construed as a microcosm of cultural space, the jazz example demonstrates a perceived learning transference from the cognitive and cultural space of one domain to that of another, essentially quite distant, domain. Though apparently not extraordinary in the experience of musicians, such appropriation is likely to be lauded by proponents of the "thinking outside the square" conception.

Solo and ensemble activities are found across the performing arts. Nevertheless, it would be difficult to name another artistic or cultural realm where the existence and characteristics of individual and collective expression are more evident, while simultaneously enigmatic, than is the case in the musical domain. Yet, whether music is manifested in individual or collective practice, it is characterised by the identifiable markers of its place in a discrete cultural realm. Thus, as identified in Chapter Five, it might be speculated that music lies very close to notions

of community, or in the sense of popular commercial music "a demographic". Indeed it seems reasonable to posit one clear universal about music. That is, wherever it occurs it is a conspicuous community, or group signifier. Ultimately then, in endeavouring to gain a closer understanding of creativity and learning, a number of factors, considered in other chapters, emerge to be synthesised, albeit in different attire.

Ultimately, as boundaries are increasingly being breached, in discussions of creativity the distinction between classical and popular types of music seems not so very sharp. Nonetheless, this enquiry will maintain its focus on popular commercial music. Interestingly a view was put in the industry conversations, found in Chapter Six, that classical music is easier to assess because it tends to replicate a musical score (Conversation 6, p. 305), rather than constantly recreating, much less improvising, as is the norm for contemporary popular music. Contemporary popular music, more quickly than classical music perhaps, is ever changing. That is not to draw too great a distinction, as improvisation maintains a distinct position in classical performance practice, proving the point that generalisations about music are likely to be fraught.

3.2. Creativity questions

A set of creativity questions, listed prominently in Chapter One (p.5), is intended to mitigate fragmentation in clarifying these complex issues and to enhance consistency across the project. They are not deployed to provide answers in a chronological way. Rather, they prompt enquiry into creativity, learning and competence in the current chapter and frame the specific creativity enquiries in Chapters Five and Six. They also serve to distil findings from these enquiries to test convergence between the creativity findings and the CBT creativity items in Chapter Seven.

Consonant with the focus of this chapter, the weight given to particular questions differs to that in the literature enquiry of Chapter Five and the industry enquiry of Chapter Six. Here, the educational dimension of musical creativity takes the pivotal focus. All of the questions have some relevance to each of the various creativity perspectives investigated across the entire project, though all of the questions are not relevant in each of the chapters. Hence the questions cannot be easily disaggregated in any particular chapter. Only those of relevance are addressed in the concluding remarks of the chapters in which they apply.

3.3. Internal factors as a context for learning and creativity

The Chapter Five literature enquiry finds creativity to be fused, overtly and tacitly, with learning, especially in Boden (Boden 1994), (Boden 2004), (Boden 2009), Bloom (Bloom &

Sosniak 1985), Dartnell (Dartnall 2002), Sternberg and O'Hara (Sternberg & O'Hara 1999b) and Molino (Molino 1990). Learning and creativity may be construed as discrete entities, each framed, and underpinned, by configurations of multi-layered elements. Thus, throughout the study learning and creativity are found to be joined across complex webs of elements, some more tightly clustered than others. Some elements from that complex array command attention here, viewed from the perspective of external and internal factors. Among external factors are the systemic educational environment and broad cultural influences.

Less penetrable are the internally embedded, and consequently less easily identified, dimensions of learning and creativity. These internal factors, comprising the more intimate and psychologically based influences, draw closer attention in later chapters. An overarching feature of that discussion is identified in the Chapter Five literature enquiry and echoed again in the Chapter Six conversations with music industry practitioners and teachers. Essentially, that is the complexity of interrelated factors in the interface between cultural and personal properties, that coalesce in generating the learning and creative practice of individuals.

In the case of music, this can be extended to groups working together, for example, in creating and performing bands or ensembles. Inevitably this crowded array of ontological, social and cultural factors arises from, and merges interactively with, the diversity of life and learning experiences. Typically these are associated not only with creative practice, but also in a more intimate ontological dimension, in the commission of becoming and being human (Bloom et al. 1993), of which, for some, becoming and being a musician is an integral part. Those, more personal and individual dimensions of learning, associated with creativity, are elaborated in some detail in the literature enquiry in Chapter Five.

The cultural dynamics of different sectors, that dictate specific exclusions and inclusions of music cultures and traditions, are considered here in some detail. While remaining attentive to VET, this takes account of music curriculum in the various educational settings, particularly in their relationship with VET and CBT, a form of outcomes based learning. Thus, framing enquiry in this chapter is VET's relationship with the other educational sectors and the extent to which VET may have invaded the education spectrum to become inextricably fused with other sectors of the broader educational project, notably schools, ACE and HE.

3.4. External factors as a context for music learning

External dimensions of learning are considered here from the wider perspective of music education. The Australian education system is prominent among factors influencing learning

and creativity and is, therefore, an encompassing feature of this music industry case study. A broad description of the education system was charted in Chapter Two. In the present chapter a focus on music education identifies some broader issues for particular sectors and how these are merging in the wake of such compelling forces, as cultural, economic and technological change.

Apropos the case study, manifold communities found within and across diverse demographic clusters shape conceptualisations of learning, creativity and competence as they apply to music. Likewise, diverse and distinctive musical worlds continue to be shaped within the distinct cultures of the sectors encompassed by the Australian education system. Thus, in considering the formal education system, account has to be taken of the distinct cultural inheritances and change factors that sometimes separately, and sometimes jointly, frame and reframe the educational sectors, and musical cultures.

While music learning takes place within, and outside of that formal framework, the Australian education system is the most overt structure enfolding formal learning. Yet, for practitioners of popular commercial music much, if not most, and in many cases all of their music learning may be acquired informally. This mosaic of musical pathways is signalled in a number of conversations with practitioners covered later in Chapter Six (Conversation 4, p. 280), (Conversation 5, p. 287) and (Conversation 6, p. 298).

Nonetheless, as becomes more apparent in the present chapter, the formal learning context directly surrounds the somewhat challenging and multifaceted question of competency based learning. As flagged in Chapter Two, CBT, though it falls somewhat comfortably into the VET sector, has been perceived as a covert threat to the academic culture of the senior school and higher education sectors. Though, even to say that CBT falls comfortably into the VET sector is to speak relatively, as is evidenced in dialogue with VET sector representatives in the Chapter Six industry conversations (Conversation 1, p. 268), (Conversation 2, p. 271). Certainly the top down imposition of the CBT scheme was anything but comfortable for VET sector practitioners, especially for those working in cultural areas of the VET curriculum.

Ultimately then, though the systemic educational setting forms a key context for this discussion, influences from outside the formal education system, though less easily accounted, also call for proximal attention. Such factors are admitted for consideration because, essentially, enquiry in this study aims to understand important dynamic influences that impel successful learning for musical creativity. These may be systemic or informal in origin and/or, coalescing across planes of the continuum. Increasingly, in the lived musical experience of an individual in Western society, a multiplicity, even constellations and galaxies of musical worlds, are likely to obtain.

For the individual, dissonance or consonance experienced in navigating these diverse, and typically overlapping musical worlds may be a qualitative factor in musical development.

In that wider learning context CBT holds a specific role for consideration here, because the association between learning and creativity is of prime concern to the case study. Also, because music learning, or skills development in VET sector parlance, is conceived in a different way than it has been for schools and HE. In surveying the systemic setting, this study of music learning in Australia reflects a discrete, albeit possibly idiosyncratic microcosm of Australian education. Useful insights into the Australian education framework are gained through this lens.

3.5. Music education in Australia: the wider context of learning

Music education has long maintained a formal place in Australian schools and HE curricula where, until quite recently, traditional music education tended to concentrate on the Western European classical repertoire. Yet, as noted in the *National Review of School Music Education*, the preoccupation with traditional Western European classical repertoire continues to diminish in the schools' sector (Pascoe et al. 2005, p. xii). Arguably, the genesis of change in music curricula is complex. Part of this complexity arises from factors, broached later in Chapter Five, that supported a now commonly held view of education as being socially, economically and culturally engendered. This view of educational circumstances, curriculum and accompanying change was signalled in Chapter Two. There, the competency paradigm was considered in the light of political, economic and industrial exigencies. Here, a comprehensive delineation of music education, and analysis of learning, creativity and competence, is manifestly pertinent to the understanding of a detailed discussion of VET later in the chapter.

Approaching educational trends from a cultural perspective brings us closer to understanding the academic discourse. As noted in Chapter Two, even a marginal acquaintance with educational discourse flags the somewhat dissonant note that the competency approach strikes with the academic curriculum, perhaps especially so in the creative disciplines. In the experience of this researcher as a former senior secondary school music teacher and as a tertiary, post graduate music student, competence would not readily spring to mind as a concept associated with learning aims in the traditional streams of schools and HE. Rather, in those academic settings, an ethos of excellence fundamentally underpins the study of the Western classical music repertoire.

3.5.1. Dissonance between aspirations of excellence and competence

Predictably, in the academically oriented traditions of schools and HE, learning goals are inevitably framed in notions of excellence. Having been fixed at the higher end of the formal education system, and subsequently cast in the classical academic mould, music education at the HE level remains largely steeped in notions of excellence. Probably, this has been the case from the earliest settlement of music in that system. Evidently, aspirations of excellence continue to permeate music education in the HE and schools' sectors. Yet the *National Review of School Music Education* (Pascoe et al. 2005, p. xxvii) reflects that at the school level the classical academic focus has been tempered, albeit unevenly. As will emerge later in this chapter, this tempering of the classical tradition has been effected by curriculum changes that reflect the economic and social circumstances of post industrial society depicted in Chapter Two. Certainly, the present rate of economic and social change, remarked in Chapter Two, must permeate education generally and, consequently, music education.

This reading of the education system and the place of excellence in the HE and school sectors is not to suggest that excellence should be eschewed as an academic aspiration. Rather it is to depict the cultural tension between the paradigm of excellence and that of competence as drivers of educational policy and curriculum. Like other disciplines across educational sectors, music is but a part, manifested in the educational and cultural apparel of each sector it inhabits.

3.5.2. Music in Higher Education – an inherited tradition of academic excellence

Limitations imposed by the scope of this project rule out a comprehensive and/or nuanced analysis of music education in each of the education sectors, particularly those other than VET. Here the aim is to delineate music education in the Australian HE sector in the wider context of the received tradition of music education. Hence, a degree of generalisation and disproportionality is unavoidable, making caveats, though tedious, a necessary corollary. For example, speculation on the emphasis that universities place on the practical performance of music is somewhat confounded by the disparate status of performance studies, ranging from a marginal place in the curriculum in some universities to a central place in others.

Moreover, the distinctive ways in which universities organise the content and delivery of music qualifications, to meet the perceived performance needs of their students, are as diverse as the individual cultures of universities themselves, their music traditions and the actual communities they serve. Music education in the HE sector is distinguished by the various strengths and

influences that mark individual institutions. Performance, for example, is a case in point. The particular emphasis of some universities leans more to an academic study of performance, rather than actual performance. At the same time, others focus equally on musicology and music performance. Further, the study of music at tertiary level is not confined to music degrees. As in other disciplines, music subjects may be elected for inclusion in tertiary qualifications other than music degrees, or music may form a strand in double degrees.

Further confounding consideration of music in HE is the role of the conservatories and their diverse and changing relationships with universities. Essentially, these relationships are somewhat heterogeneous. However, their existence does not gainsay the fact that performance studies and performance qualifications were, and continue to be, major areas of the music curriculum in many universities. Though not universally the case, instrumental and vocal teachers were, and are, retained in certain universities where they provide one to one and group tuition in practical music performance. Yet ambivalence regarding the status of instrumental and vocal performance, and of performers themselves, appears to persist in the HE domain.

This conundrum was well articulated in an introduction to a performance at the Sydney Conservatorium of Music. On that occasion the Dean of the conservatorium noted that the concert, being presented by an ensemble of elite classical performers, had been conceived and prepared by the performers. Thus, the event not only represented performance in rehearsal practice and concert presentation. It also demonstrated the performers' own scholarly research of the repertoire, thus evincing their skills as musicologists. Moreover, the performance evoked their creative interpretive response to, and synthesis of, that repertoire. Yet, their status as performers meant that their scholarly work could not be deemed research, and would be ineligible for research funds. Conversely, a musicologist or academic reviewer writing about the concert would be eligible as an academic to apply for research funding (Walker 2011).

Higher education curriculum and the problem with performance

Essentially, at least up until the last ten or fifteen years, music at senior secondary and post school levels was, with few exceptions, an elite discipline, fundamentally anchored in the classical Western repertoire. Otherwise, in the traditional pre-eminently academic educational context, formal music typically remained an academic study within the remit of universities. Practical performance on the other hand, as remarked above, presented something of an anomaly to the more cerebral ethos of the universities. Hence, it was often ceded to the state music conservatories. Equally, across universities and state conservatories in Australia, music was generally limited to the study of classical Western styles, and in isolated cases to the study

of the classical styles of other traditions. Study of folk traditions was still more rare. The study of classical and folk styles of other traditions featured mainly in universities that were, as noted later in Chapter Five, powerfully associated with the flourishing academic field of ethnomusicology. A more nuanced and comprehensive account of state conservatories, and detailed analysis of their different relationships, or absence of relationships with universities can be found in the scholarship of Lancaster (Lancaster 2006).

Jazz studies made minor incursions into the HE curriculum via the music conservatories, where, as already remarked, practical training in performance was concentrated. This development, that saw jazz becoming more embedded into the music curriculum, illustrates the potential for change that already existed in HE. Notwithstanding the anomalous role of jazz in the academy, the traditional classical curriculum generally prevailed well into the last quarter of the twentieth century, when this researcher was an undergraduate at the University of Queensland, and up to the early nineties, when a postgraduate student of musicology at the University of New South Wales. At that time, though undergraduate and postgraduate music degrees formed part of the offerings of the University of New South Wales, training in performance was not yet part of the music curriculum. Nevertheless, as the Bachelor of Music course matured, practical performance became integrated into the music curriculum (University of New South Wales 2011).

The University of Queensland, on the other hand, was one of those universities with a long history of music education that integrated practical performance into the curriculum. There, music performance lecturers traditionally provided individual instrumental and vocal tuition for a major classical performance stream in the Bachelor of Music degree. Those lecturers were, in the main, leading professional classical musicians. Practice and teaching studios and a fully equipped performance space were provided within the music department of the university to meet the performance requirements of music students. Still, as just remarked, a systematic and concentrated focus on performance practice studies within mainstream undergraduate music programs was not then offered in all universities, even those offering Bachelor of Music degrees. At the same time Queensland Conservatorium, also located in Brisbane, remained autonomous though the two institutions shared many instrumental and vocal lecturers. Subsequently Queensland Conservatorium became amalgamated with the newer Griffith University, where music education is currently offered in “classical” and “popular” music streams (Griffith 2011).

Traditionally, popular commercial styles were not considered professional, at least not in an academic sense. Thus, their study and practice remained informal, that is to say, not part of formal education provision. It was not really until the last two decades of the twentieth century that a critical mass of music academics began to pay scholarly attention to popular commercial music. As remarked in Chapter Five, Adorno's censure of popular music notwithstanding (Adorno 1991), a broadening scholarly curiosity towards popular music accompanied the then growing academic interest in ethnomusicology. Still, emergent academic interest in popular music maintained a cultural focus, firmly embedded in the evolving discipline of ethnomusicology. In these circumstances, scholarly activity tended to approach popular music as a cultural marker observed from an anthropological, rather than an intrinsically musicological, perspective. In this cultural climate it is unsurprising that practical performance of popular music was not generally embraced in the HE curriculum, even almost up to the end of the twentieth century. Yet, that is not to deny the exceptions that are given some attention later in this chapter.

Jazz studies formed something of an anomaly in the purview of Western classical music performance. Moreover, having less clear vocational aims, jazz continued to be an adjunct to the core business of the state conservatories. In that way, though residing alongside other courses, jazz stood as an add-on twice removed from academe. This separation was amplified by the fact that jazz being largely an aural and predominantly improvised form, resides outside of the relatively rigid written notational discipline of Western art music. Thus jazz is rendered a kind of autonomous anomaly more suited to aural analysis and less suited to the preferred written text based analysis of the Western academic tradition.

That the performance of music was largely subsidiary to the academic focus of universities is evidenced by its assignment typically to the conservatories. The very title of “conservatorium” implies a custodian role, arguably one of conserving historical artefacts, though modern conservatories at the tertiary level give lie to that title. Cost shifting on the part of universities may also have contributed to the separation between academic and practical performance courses. Certainly, the practical performance element of music education carries a significantly higher cost burden. For instance, considerable resources are involved in the more intense teacher to student ratio of one to one mostly required in performance tuition. The concentrated demands of the studio model greatly exceed those of the more typical group academic lecture model. Evidently, the cost of financing specialised studio and performance spaces, and costly

equipment and maintenance staff, required to enable the development of performance musicians is considerably greater than that required to finance traditional mass lecture and tutorial spaces.

However, given that on the whole HE institutions, including universities, schools of visual and dramatic arts and conservatories, are essentially funded from similar revenue sources it is possible that the significance of cost as a mitigating factor in the separation of the practical from the academic is moot. Certainly, other technical and practical performance based domains, for example medicine, dentistry or even teaching, also involve relatively intensive financial imposts. Like music education, their comparatively concentrated requirements for learning also surpass the demands of the group lecture delivery model.

Ultimately, however, notwithstanding the performance problem, it might reasonably be argued that music was implicitly construed as a discipline within the academic tradition. This is broadly evidenced by its inclusion in the HE sector and its absence, until about the last fifteen years, from the VET sector. Moreover, in functioning as an adjunct to HE, whether implicitly or explicitly, the conservatories were assigned to deal with the "hand" and perhaps even the "heart" realm of the domain. Thus the more practical, technical, and emotionally embodied dimensions of music, exemplified in practical performance, were not synthesised with any consistency across the academic realm of the universities.

Unlike performance, the situation for composition is less equivocal. In the classical tradition composition enjoys closer congruence with the received academic model of lectures and submitting "papers" (compositions) for assessment. Possibly this was so because composition could be construed, at least implicitly in the academic sense, as a text based form of cultural transmission. That is not to say that composition is excluded from the conservatories. Nor indeed are musicological studies absent from the curricula of conservatories. Rather, the primary learning responsibility of conservatories was typically deemed to be performance practice. Although, like university music, state public conservatories operated predominantly in the area of traditional classical performance, nonetheless, having a more physical purview the conservatories present a more overtly vocational model (Lancaster 2006). True to the classical tradition that role was, and is in the main, to prepare musicians for employment in chamber ensembles, orchestras and opera and ballet houses.

Essentially then, the role of music education in universities has traditionally been to educate music theorists, composers, ethnographers, historians and, though less unequivocally, performers of classical music. Still, elite professional performance musicians have participated, and will continue to participate in the intellectual life of universities, embodying the academic

in the reality of live performance. Given these broad trends, however, it might be expected that music scholars from within the traditional academic domain would be generally indisposed to the competency based approach, an approach overtly associated with the more hands-on trades and military domains. Given reflection so far on the HE sector, including the conservatories, it is not surprising that music education, with a focus on excellence, may have remained relatively aloof from the noisy advance of market forces and the competency paradigm. Yet, current discourse indicates that the academy cannot remain immune to the swell of globalisation and market forces.

The expanding curriculum in HE music education

In attempting to account for current music education developments in HE, the problem of generalisation applies as it did in the above depiction of the inherited culture of music education. As becomes evident in this section however, the changes in the broader educational framework, flagged in Chapter Two, have a more direct impact on music education than did the reforms of the 1980s, though in evolutionary terms danger attends attempts to differentiate educational trends and movements. In the earlier wave of change, that is the so-called Dawkins reforms of the 1980s, some colleges of advanced education were decommissioned while others were amalgamated into existing universities. Yet others were merged to create new, regional universities. Nevertheless, those changes heralded a kind of evolutionary escalation of change in HE and other education sectors that, in hindsight, appears to be unremitting. Ultimately, changes in policy settings, along with other broader cultural factors that have challenged earlier absolutist paradigms, have had direct implications for music education.

In any event, given their emergence from colleges of education, the newly formed regional universities evidently served more culturally diverse populations than had the traditionally established so-called sandstone universities. Certainly, in more than a few cases, these newer institutions were responsive to their more immediate geographical and/or, cultural communities. Reflecting their cultural inheritance from the traditions of the colleges of advanced education, the younger regional universities offered new curriculum models suited to the needs of their more immediate regional localities. These included courses in contemporary popular music performance, production and composition, leading to degrees in contemporary music. The emergence of those new curriculum offerings is of particular interest to this study.

In retrospect it is clear that the changes in HE that emerged early in the 1990s impelled a period of change that continues unabated. As was the case in identifying the inherited tradition of music education, contemporary developments affecting music education in the HE sector are

likely to be better appreciated in the light of an understanding of the factors affecting the HE sector more generally. Indeed, music can be viewed as a distinctive marker in that wider HE educational system. A concise snapshot of profound macro level change in HE can be gleaned from findings of the *Review of Australian Higher Education*:

> Higher education has changed dramatically over the last 30 years or so. It once comprised a small number of publicly-funded institutions. This is no longer the case. There are now 37 public universities, two private universities and 150 or so other providers of higher education (Australian Government 2008, p. xi).

These changes to the educational panorama are abundantly educed in the myriad of new directions emerging in music education. The broader economic and social factors described in Chapter Two, and particularly the privatisation of tertiary education, have contributed in great part to the emergence of the 150 new providers of higher education mentioned in the review. Certainly, as already noted, music education features in that development. At the same time, music education has been subject to particular cultural forces in the area of music reception, a qualitative change that has accelerated over the last thirty years. Hence, in addition to systemic transformations affecting education as a whole, the more socially contested provinces of music education have posed a cultural shift that has coincided with a pressing demand for new curriculum responses, including introducing popular music into the academy.

HE in flux

Inevitably, music education is sensitive to the broader context in an environment of flux. Cultural and economic change affects the learning and practice of music, an overtly cultural domain in which deep and often conflicted cultural shifts are reflected in contested discourses. Such contests are particularly acute on questions of music aesthetics.

As elaborated in Chapter Five, these changes are often reflected in disputed values and taste regarding the relative merits of popular and classical styles of music. For example, the growing appetite, or market for popular commercial music is lamented by cultural theorists such as Adorno (Adorno 1991). Change in values is also reflected in the relationships between these hitherto largely separate, though not mutually exclusive styles and cultures. For example, crossover styles, or fusions between classical and popular modes, sometimes involve musicians from across music styles and cultures performing together. Further, upheaval arises, in music of all kinds, from new technologies and constantly transforming product distribution channels in which global markets and mass production lend force to arguments disdaining the commodification of music, such as those advanced by Adorno (Adorno 1991). As observed

later, in Chapter Five, technology deeply challenges received views of creativity in the very processes of composition and performance.

Thus universities are no longer constrained from bringing popular commercial music into their curricula, or from embracing popular music performance practice. This comparatively recent development, possibly signifying an expansive trend in the scope of music curricula, has been most apparent in a number of the more newly established universities. For example, younger regional universities such as Southern Cross University and University of Western Sydney and their counterparts in other states, such as Griffith University in Queensland, include contemporary popular commercial music and popular music production among their undergraduate music degrees. Southern Cross University offers only contemporary popular music in its Bachelor of Contemporary Music degree (Southern Cross University 2011). The University of Western Sydney offers a combination of traditional and contemporary popular music performance curricula in its Bachelor of Music degree (University of Western Sydney 2011). Such new curriculum options suggest that these institutions would be favourably positioned to seek pathways agreements with RTOs. It might be speculated too, that the cost of education for contemporary music performance is significantly ameliorated by technology in a way less possible for the more intensive one on one studio model of classical performance.

Like the conservatorium styled dual private sector providers considered later in the chapter, some universities, such as Victoria University, also offer dual sector qualifications (Victoria University 2011), in this case generally along the lines of the business school model. That is where students may begin at a certificate level and then advance incrementally, via diploma level, to graduate and post graduate degrees. Though this model has been in place in many of the older universities, unlike Victoria University, certificate and diploma components of the programs were not VET qualifications. Victoria University on the other hand has a distinctly strong VET tradition. A recent account of the adoption of VET by universities is found in *Shaken Not Stirred? The development of one tertiary education sector in Australia* (Wheelahan et al. 2012).

Demonstrating yet another dimension of the VET, HE pathway model, the University of Adelaide offers music courses through the Elder Conservatorium of Music that encompass VET qualifications in classical music. There classical music is offered at Certificate IV and Diploma levels and can form a pathway into Bachelor of Music and ultimately post-graduate music degrees (University of Adelaide 2011). This appears to be an atypical pathway, in that it is limited to classical music studies, though it proceeds from a VET certificate level qualification.

This singular example is mentioned because it suggests that, notwithstanding the competency paradigm, classical music may be approached within the VET model. While more work would be required to consider whether this is a singular case, it does at least suggest that, though classical music does not generally appear to fall within the VET remit, it may be drawn into the scope of the CBT model.

As noted in in the previous chapter, senior school curriculum has traditionally been largely constrained by the academic requirements of HE. Essentially, universities set entrance scores for most degree courses. These scores are linked to the achievement of students in final year academic results as a sorting mechanism for university entrance. Music however, in common with visual and performing arts, enjoys a level of flexibility relative to more standard academically focused disciplines. That is because entrance to tertiary music courses is not so strictly locked into tertiary entrance scores. Although there is usually a minimum university entrance score, unlike less equivocal academic disciplines applicants to HE music courses are often selected for music based on audition or submission of a portfolio of compositions.

Evidenced by the advertised entrance requirements of a sample number of universities, applicants to music courses, in those institutions at least, are required also to demonstrate music theory and aural skills at audition (Queensland Conservatorium Griffith University 2011), (University of Sydney 2011), (University of New South Wales 2011). In the case of applicants for instrumental and vocal performance majors, universities and conservatories generally stipulate an equivalent to a final senior school qualification or a grading from another source, such as the Australian Music Examinations Board (AMEB). Hence, for entrance into music studies in HE there is evidently an element of recognition of musical competence outside customary HE recognition processes of the matriculation tradition of senior school certificates.

Still, entrance requirements for admission to Bachelor of Music degrees vary across the HE sector and methods of selection are subject to the particular circumstances and selection rules. This reflects the singular ethos and character of each university and/or conservatorium. It might be speculated that entrance into the conservatories is typically more inclined to the audition method of selection, with less weight given to tertiary entrance scores, while universities may incline more to the tertiary entrance score than the conservatories. Nevertheless, practical performance and theory and aural skills entrance tests are usually mandatory for HE music departments that have a strong performance culture. Thus, candidates may be required to undertake an audition and/or meet the requirements of a specific tertiary entrance score based on academic achievement in relevant final senior school subjects, or an AMEB qualification.

Alternatively, in the newer educational contract, admission to a university degree course may be gained, as in the case described earlier, with advanced standing based on completion of a VET qualification. However, it seems likely that while articulation across business studies, or across popular music studies from VET to HE may not be uncommon, transition from popular music performance studies to classical performance studies is less likely to be viable, or available.

One of the few certainties in seeking to identify trends is that there are exceptions to almost every statement that might be made about music education provision in Australia. Though danger lies in generalisation, nevertheless while recognising the somewhat patchwork arrangements so clearly depicted here, and in the *National Review of School Music Education* (Pascoe et al. 2005) and admitting exceptions, some broad trends may be observed. These evidently indicate softening, if not dissolution, of the erstwhile sturdy walls dividing the hitherto discrete curriculum styles of HE and VET, walls that endured up to the fading days of the last century. Certainly considerations so far in this study are suggestive of this trend. Thus, early railing against the introduction of CBT by academe was soundly based.

3.5.3. Music education in schools

Turning to the school sector, the most comprehensive recent account of music education in schools, the *National Review of School Music Education* (Pascoe et al. 2005), does not resile from the question of creativity. The more urgent concern of the Review is properly summed up as being the pressing issue of student access and participation in music education in Australian schools. Admitting the generality of statements about creativity (Pascoe et al. 2005, p. 47), and though not primarily concerned with creativity, nonetheless the Review comments thus: "There is a need to address creativity in music in Australian music curricula" (Pascoe et al. 2005, p. xi).

> One of the concerns expressed by a range of points of view during the Review, was the perception that Australian music curriculum documents under-represent creativity in music in favour of music as a re-creative activity. In their policy statements, all States and Territories include some comment about the need for students to be creative. However, it appears that in school music learning (the enacted curriculum), students are not always expected to be creative in the same way as students of visual arts, dance drama or media. There appears to be some discrepancy between Sates and Territories on the emphasis placed on creative activity in music. Whereas some States, such as New South Wales, include creative musical activity in all syllabus and support documents, in other States music students are more likely to be asked to re-create rather than create (Pascoe et al. 2005, p. 47).
>
> The prevailing characteristic of the successful music programmes at virtually all site schools was its basis in practical classroom activities which developed the learning of musical knowledge and skills through integrated performance, listening and (to a lesser extent) creative activities (Pascoe et al. 2005, p. 70).

Given the traditional hold of universities on the senior school curriculum, observed earlier, it is unsurprising that a predominantly academic culture was evident at the senior school level. For music curriculum this academic emphasis aligns with the ethos of excellence in the learning aims of HE and schools, demonstrated in the *National Review of School Music Education* explanation of quality music education in schools:

> A quality music education – as identified by this Review – provides a music education that focuses on participation and engagement, extension and, ultimately, excellence (Pascoe et al. 2005, p. xxvii).

The Chapter Five enquiry into the creativity literature finds accounts of creativity replete with references to excellence and competence, especially in analysis of the relative measures and qualities in attempting to describe dimensions and manifestation of creativity. Rather than judging the relative merits of excellence, or competence, as guiding educational principles, the association of excellence with academe is observed here to articulate an implicit dialectic in educational discourse between the academic appetite for excellence and the vocational tenet of competence. Still, it would be overly simplistic to suggest that adherence to CBT in the VET sector excludes excellence as an aim. Though signifying qualitatively different objectives, or cultures, aspirations of excellence and those of competence might, more helpfully, be conceived as part of a continuum, rather than as opposing forces. Given that they are not mutually exclusive terms, but rather, related notions, both competence and excellence have a place in the educational aims of all sectors. Without competence there can be no excellence. At the school level, competence might be considered an appropriate aspiration for the majority of students.

Nonetheless, the pattern of convergence across VET and HE models, incorporating their respective traditions of competence and excellence, is nowhere more palpably demonstrated than in the crucible of school education. Indeed the breakout of curriculum, observed above in relation to the take up of popular commercial music in HE, has arrived in the schools' sector on a grander scale, as evidenced in the *National Review of School Music Education* (Pascoe et al. 2005, p. xii). This trend is reinforced with large-scale school spectaculars, rock eisteddfods and talent programs often supported by industry and school education partnerships.

The expansion of VET in schools is also escalating convergence. VET in schools has been buoyed by the raising of the mandatory school leaving age from fifteen to seventeen across Australian states and territories. The new school leaving age now applies to students up to the age of 17 who are not in full time employment or training. Subsequent to the implementation of the AQTF, and the later introduction of National Industry Training Packages, VET has assumed a secure position in the school curriculum (Bullock 2010, p. 68).

Pressing for broader retention of students to Year 12, growth of VET in schools courses for students in the senior years has been favoured by government policy at both state and national levels (Bullock 2010, p. 68). Hence, all students in the senior secondary years are eligible to undertake VET courses where available. This extends to some VET courses standing as School Exit Certificate subjects eligible for inclusion in the Australian Tertiary Admission Rank (ATAR), though within closely defined constraints (Innovation & Business Skills Australia 2009) that vary from state to state.

The expanding curriculum in school music education

Predictably then, the traditional academic model in which classical music was virtually exclusively privileged, no longer holds dominance in what might be considered the academic realm. An aside in the *National Review of School Music Education* for example, notes that "classical/Western art music is offered less than other types of music" (Pascoe et al. 2005, p. xii), though this finding is not rigorously defended in the report. Nevertheless, given earlier discussion regarding the strong hold of the HE sector on school curriculum, this is an illuminating comment. Indeed, more recent trends in HE remarked above bear witness to a blurring of the distinction between classical Western art music, and Western popular music. Evidently changing school music curriculum may be construed as a reflection of that trend. Presumably, the rising influence of VET upon the senior school curriculum is likely to have had an ameliorating impact on the dominance of classical music.

Explicitly, in NSW for example, Higher School Certificate (HSC) candidates may include one VET course, from the so-called VET frameworks, in their selection of subjects contributing to the ATAR (Australian Tertiary Admissions 2009). However those VET framework courses are modified to the extent that candidates must complete a NSW Board of Studies (NSWBOS) formulated written examination in addition to the mandatory *Training Package* assessment (Australian Tertiary Admissions 2009, p. iii). If the NSW schools' sector reflects more national trends, the schools' sector appears to be approaching VET curriculum in a far more integrated way than has been the case for formal technical education in schools to date. Current models are removed from the past where technical education in schools was, in the main, either separated into different institutions, usually named technical, or domestic high schools, or at least streamed into "lower ability", or, "non academic" classes. The *National Review of School Music Education* comments:

> This Review notes growing interest being shown by an increasing number of secondary schools developing Vocational Education Training (VET) courses in music.

> The Australian Quality Training Framework (AQTF) provides a nationally agreed recognition arrangement for the vocational education and training sector… VET in Schools is a viable alternative for music education in secondary schools (Pascoe et al. 2005).

Coinciding with this growth of VET in schools, and the earlier remarked expansion of HE curriculum to include popular music, is the increasing presence of popular music in the senior school curriculum. In that context, notwithstanding the evident significance of tertiary entrance ranking in NSW and other States and Territories, the delivery of the *Music Industry Training Package 01* in schools witnesses expansion of the curriculum in the school sector in a way that brings schools into the embrace of CBT.

Schools continue to broaden their VET offerings in response to growing demand for such courses. It may be postulated that students in the post compulsory years of schooling take VET courses with employment in mind. However, it is possible that a range of other factors motivate students to take up VET courses while still at school. Many activities that may be defined as VET may also be defined as domestic or hobby activities. Employment aspirations are likely to be more relevant as a motivational factor for some students than for others. Essentially, what one individual may regard as a potential occupation another may regard as an interest. Distinction between the two is sometimes unclear. The inclusion of VET courses in the school curriculum may also be viewed as a necessary broadening of the curriculum to allow for the needs of a more diverse cohort at the level of the post compulsory years in schools, in response to changes in economic, and therefore employment, circumstances.

Consideration of music education so far suggests that music, at least as espoused in formal curriculum documentation, has tended towards a relatively normalised history within the Australian education system. That is to say, music education forms part of the school curriculum that is generally accompanied by rhetoric supporting a holistic approach to learning and assessment, at least at the senior school level. Nevertheless as indicated in *The National Review of School Music Education: Augmenting the Diminished*, the take up of music in the school sector remains low compared to other disciplines, even those in the arts (Pascoe et al. 2005, pp. 7,12). The review notes, as an aside to even more dire circumstances for music education in mainstream school curricula, the apparent lack of attention to musical creativity at the classroom level (Pascoe et al. 2005). That however, is not to discount exemplary practice in some schools and classrooms, including some of those investigated in developing the report.

Concomitant with an ambivalent attitude to music in mainstream school curricula, is the tendency to regard music as an extra curricular activity, somewhat akin to sport. Moreover, the existence of a rich array of musical activities outside the formal education system tends to

reinforce this view. Again, that is not to discount anecdotal evidence of outstanding school music programs, some of which are outlined in the report (Pascoe et al. 2005). Indeed, like sport, music attracts a level of outreach beyond the formal education system unmatched by less ambiguously academic subjects. Thus, in complex dimensions and embodiments of musical worlds, diverse programs and competitions, real and virtual, abound across musical cultures and communities. Further, typically, again for music as for sport, these encompass professional and non-professional, or private and community activities. Largely unaccounted rich and complex learning is evidently taking place through such activities.

3.5.4. VET and music education and training

Unlike the academic culture of the school and HE sectors, the VET sector, with a more practical culture, has become fixed lock-step with the system of competence. As noted in Chapter Two, this has played out through the implementation of a highly structured and increasingly centralised CBT system for VET. Though ad hoc beginnings in the establishment of music in the VET purview may go back further, formal introduction of music into VET has been relatively recent, that is, over only about the last ten or fifteen years.

Also, unlike the more academic education sectors, the focus of music in the VET curriculum is almost wholly on popular commercial music. Evidently, this focus derives its origins, in part at least, from a range of more complex and finely nuanced factors than can be explored satisfactorily within the scope of this investigation. Still, as already observed, until rather recently popular music has generally been absent from any of the formal education sectors. Essentially, popular culture was perceived, if at all, at odds with the culture of the more dominant academic sectors so far considered. Indeed, popular culture did not fall within the academic paradigm of excellence. Moreover, whether coincidentally or not, it is apparent that the explicitly commercial character of popular music caused it to fall most easily into the more industry related remit of VET. Certainly the industrial and economic factors detailed in Chapter Two apply most unambiguously to music as it is established in the VET sector.

As noted in Chapter Two, arguments against vocationalisation have been replete with scholarly theories of both knowledge and cognitive skills. Such arguments have long permeated discourse on the educational role of schools and HE. Moreover, as further indicated in Chapter Two, concern that the competency approach risked reducing education and knowledge to a "technological" or "technicist" plane came early on in the VET movement to the competency paradigm (Stevenson 1992, p. 82). Similar views emerge in the industry investigation of

Chapter Six (Conversation 1, p. 265). Further, as already remarked in Chapter Two, HE had increasingly served to influence, and even to define, curriculum areas in school and post school education. This colonisation continues through the connection forged in applying grades achieved by students in specific subjects of their senior secondary certificates as a measure for ranking scores that directly determine tertiary entrance options. Nonetheless, as has already been identified, VET and popular music have made strong inroads into the schools' sector.

In the case of music at least, a corollary of the dominance of HE over the senior school curriculum is the perception that the quality of cognitive skills necessary for music would be encapsulated in an academic education. Thus, music was placed in the academic realm, traditionally the province of matriculation subjects in the school sector and of HE, that is, rather than in the practical curriculum characterised, as it has transpired, by more applied performance oriented mechanisms such as CBT.

Qualifications and careers in music

Vocational outcomes, for VET or HE music graduates, depend on labour market factors as much as formal qualifications. Moreover, for music practitioners, the distinction between the practical and the theoretical has typically not been formally demarcated as it has in many other professions and fields of study. Hence it is not uncommon for musicians to have successful careers without the benefit of formal study or qualifications, a phenomenon that may exempt music and music education from allegations of vocationalism.

Certainly, the notion of a music qualification would seem irrelevant to artists in most areas of performance in the popular music industry. Yet, though possible, it would be unlikely that an aspirant to “serious music”, an orchestral player for example, would gain a position in a professional orchestra without the benefit of a recognised HE qualification in music performance and evidence of practice and experience at the post graduate level. Currently, the latter would typically take place in some form of young artist development program with professional practitioners, led by either an academic institution, such as a conservatorium, or a professional performing company, such as a state symphony orchestra or opera company, or other professionally recognised performing group, such as the Australian Chamber Orchestra.

VET: a new domain for music

As popular music performance gained admission in its own right into the curricula of a small number of essentially new regional universities (Southern Cross University 2011), (University of Western Sydney 2011), (Griffith 2011), consideration of national qualifications in music was

beginning to emerge in the VET sector. Thus, alongside its as yet nascent academic standing in HE, formal education in popular commercial music simultaneously entered into the VET sector. Though, reflecting the expanding economic and industrial environment considered in Chapter Two, it took root in the VET sector on a manifestly larger and more systemic scale.

Music, trades and competence

Upon entering the VET remit however, music education took on the more applied technical education and training culture, joining time honoured trades such as plumbing, hairdressing, commercial cookery, panel beating and so on. In this new migration of music education it is somewhat ironic that translation into the trades associated with the VET sector saw music education return in one sense from whence it originated. That is, to again reside alongside the trades as in the pre-industrial guild system. From the mediaeval period, through the renaissance and beyond, the guild system had sustained education and training in the arts, along with bakers, cobblers, blacksmiths and so on. During that time, with the exception of religious institutions or travelling performers, where musicians gained ongoing training through contact with other musicians as well as day-to-day experience in performance, music was typically identified with the applied practice of trades rather than the academy.

Thus, prior to the much critiqued evolution of multinational, mass production corporations, denoted in Chapter Two, town based guilds, prominent families, royal courts and churches had directed skills development through apprenticeships for artists and artisans alike, to directly serve family businesses and other small enterprises in local towns and regional communities as well as royal courts and churches. Nonetheless, also somewhat ironically perhaps, though music returned to VET, it did not resume what might be considered its natural inheritance, from the guild system, now represented in a more contemporary apprenticeship model. Still, a remnant of that tradition resonates in claims made to prospective students, or in more contemporary parlance, clients, in the form of enticements assuring close association with industry practitioners. Such claims pervade the marketing and promotional materials of RTOs, and for that matter universities, that provide courses and qualifications in contemporary popular music (Australian Institute of Music 2011), (JMC Academy 2011), (Southern Cross University 2011), (University of Western Sydney 2011).

Thus, skills development in the area of contemporary popular music is a modern example of a discipline that appears, on the surface at least, to have breached the division between VET and HE. Simultaneously, the impact of technology affecting music diffusion has allowed music to embrace the full production spectrum from independent individuals and small ensembles, or

bands, through to mass production. It is likely, for a number of reasons, that VET is more readily able than HE to respond to these conditions. Essentially, VET has a more localised and distributed style of delivery. It also has the flexibility for training to be accessed on an as needs, short course basis, rather than in the predominantly longer degree courses of HE. Additionally, VET offers the possibility of bridging with HE for those students with an interest in pursuing music studies into degree level, providing a pathway to further study as an alternative to the school to HE pathway. This pathway may also represent cost benefits for students, as to date VET is generally a less costly option than HE.

The term, "skills development", typically used across the VET sector, infers a more applied type of learning than HE. Nevertheless, whether despite or because of the development of competency based instruments for VET, music is now formally embedded into all of the five education sectors: early childhood, schools, VET, ACE and HE. As remarked in Chapter Two, in modern times music had hitherto not been associated with technical education, which had generally been considered the province of VET. However, its official recognition in the VET sector, confirmed by the development of its own national industry Training Package, meant that music was formally embedded in all education streams for the first time. Then, in the last decade of the twentieth century, qualifications awarded within each of the senior school and post school sectors became distinguished by their descriptors within the AQF (Australian Qualifications Framework 2007).

Reflecting increasing fusion between the VET and HE sectors of tertiary education, the most recent iteration of the AQF gives less emphasis to sectoral demarcation (Australian Qualifications Framework 2011). That is, when compared with the previous AQF Handbook, where qualifications were grouped into sectors on a table of qualifications (Australian Qualifications Framework 2007). Still, though the grouping of qualifications into specific education sectors is less demarcated in the current AQF handbook, qualifications remain distinguished on the AQF website in a table that assigns particular qualifications to each of the three distinct formal regulatory and accreditation systems in the following way:

- Schools Sector Accreditation (Senior Secondary Certificate of Education)
- VET Sector Accreditation (Certificates One to Four, Diploma, Advanced Diploma, Vocational Graduate Certificate and Vocational Graduate Diploma)

- HE Sector Accreditation (Diploma, Advanced Diploma, Associate Degree, Bachelor Degree, Graduate Certificate, Graduate Diploma, Masters Degree and Doctoral Degree) (Australian Qualifications Framework 2011).

Distribution of vocational education and training across sectors

In this recent approach, qualifications are allocated to the sector responsible for their integrity within the three relevant regulatory frameworks of the school and tertiary education sectors. Consequently, though particular VET qualifications may be undertaken in schools, or through ACE providers, they can only be awarded within the national VET regulatory system. Hence, wherever VET qualifications are awarded, the provider, whether private, public, school, ACE, HE or traditional VET provider, must hold current registration as an RTO under the provisions of the AQTF. As a result, many school and ACE providers, and even universities, have now become formally registered as RTOs. Evidently this trend has had an impact on music education in schools, especially in regard to broadening curriculum offerings for senior school students. At the same time HE has overlapped with the VET system at the levels of Diploma and Advanced Diploma, though typically universities provide Diploma and Advanced Diploma qualifications outside of the VET remit. Though attention in this study rests primarily on VET, still, this escalation of overlap across sectors indicates increasing sectoral convergence.

Qualifications in the *Music Industry Training Package 01*, for example, may be gained in school, through ACE, through TAFE, or through a private government registered VET provider. It may be argued that in HE the study of music, though not delivered through the Training Package mechanism, is vocational. Thus, it may be reasonably assumed that most individuals enrolling in a music qualification would be likely to do so with some expectation of using that qualification for employment in or near that field. The inclusion of music in the CBT culture of VET raised a debate about whether music skills, let alone creative skills, were amenable to assessment.

As in other curriculum areas, assessment has inevitably been part of music education, since that is the basis for determining the award of qualifications in schools and HE. This applies across music studies, for example, instrumental and vocal performance, aural skills, composition, musicology and music direction. Additionally, a completely autonomous national system of assessment is encompassed in the activities of the AMEB and a very long tradition of music competitions, such as, eisteddfods and other competitions from local to international levels. Given these diverse contexts in which music has traditionally been assessed, debate about

whether music can be assessed seems somewhat extraneous. Nonetheless, whether creativity can be assessed is a more elusive question, though one of greater interest to the present study.

Given this evidently competency infused precedence for music, the significant move for VET from more traditional curriculum approaches to CBT seems not so radical in the case of music. Nor, given the earlier mentioned differentiation of qualification pathways between VET and other education sectors, is the CBT approach surprising at the broader VET level. As argued above, ultimately, specific curriculum approaches are bound by the particular learning cultures and objectives upon which each of the respective education sectors is built. Thus, even where a similar area of study, like contemporary popular music, is offered through different educational sectors, distinctions in curriculum approaches remain. While sharply demonstrated in the case of contemporary popular music, this may also apply in other domains relatively new to the VET remit, especially those, like popular contemporary music, that overreach those trade areas traditionally located in the VET sector. Such might be the case for disciplines such as early childhood education, business, library and information services, art, craft, design, complementary health and community services, for example, though most of these domains have a longer association with VET provision than does music.

While music now resides in multiple education sectors, nevertheless in broad terms not only assessment methods, but also the foundation of VET learning programs differs from that in HE. Essentially VET functions primarily to serve a more applied technical orientation geared towards industry while HE, as remarked earlier, carries a more academic orientation whose vocational aspirations lean to professions. By extension the school sector, though now also channelling VET through the senior secondary level at least, has in the past leaned more to HE, where it was traditionally captive to HE matriculation arrangements. While those ties remain, however, the school curriculum has broadened, as indicated in the *National Review of School Music Education* where it is noted that:

> …VET in schools is a viable alternative for music education in secondary schools. Some schools…are already using VET material for Certificates 1 and 2 in years 11 and 12 (Pascoe et al. 2005, p. 45).

The reach and instruments of VET

Government interest in the VET system, and the political and the economic forces that impelled the national CBT system in Australia, were detailed in Chapter Two. For this industry case study, the association between learning and creativity is ultimately observed through the lens of competence. Also, the term training evidently imputes a more limited educative scope than does learning. From the perspective of curriculum, in the traditional sense, the current instruments of

the nationally mandated VET system are National Industry Training Packages. Though, as will be clarified in later chapters, these competency instruments are not construed as curriculum. Indeed, upon closer investigation it becomes evident that the nomenclature, "Training Package", is somewhat misleading. Arguably a more exact description would be "Assessment Package". Semantics notwithstanding, being captive to the competency system, VET is invested with a highly prescribed, nationally centralised scheme in which assessment assumes an exceptional role compared to other sectors in the spectrum of Australian education.

Discussion in later chapters draws attention to the functional significance of National Industry Training Packages and their fundamental role in the VET sector. As the key element upon which VET qualifications are constructed, within each of the National Industry Training Packages, Units of Competency serve as the direct instrument of implementation for the competency paradigm in Australia. Thus in exploring the possibilities for creativity in the VET sector, explication of Units of Competency is crucial to an understanding of the link between competency, learning and assessment in VET. In the VET context skills development tends to be articulated as the learning imperative rather than possibly less definite, though perhaps ironically more nuanced, terms such as education. In Chapter Seven creativity related Units of Competency serve as exemplars for a more grounded critique of creativity and CBT.

3.5.5. Convergence in tertiary music education: why the urge to merge?

Cross sectoral arrangements between VET and HE

Evidence of sectoral convergence began to emerge early in the establishment of the new national VET arrangements of the 1990s. This was demonstrated mainly in the growth of articulation arrangements between individual HE and VET institutions. Typically such instances of articulation were based on agreements between an individual VET institution, which may have been a private or TAFE RTO, and an HE institution, usually a university. The range of such partnership agreements tended to be both disparate and provisional. Arrangements usually involved the HE partner considering the course content and delivery of a relevant VET qualification as a basis for approving advanced standing in a degree course.

Typically, students deemed to have achieved the agreed VET qualification with the approved RTO partner would then be guaranteed acceptance by the HE provider in accordance with the agreement between the two parties. Such agreements usually obtained at the VET Certificate IV or Diploma level. By the beginning of the century, these arrangements became a relatively common qualification pathway for aspiring popular music practitioners. Nevertheless, in some

cases students would be corralled into music business rather than music performance or composition (Conversation 6, p. 309).

Though somewhat outside the present discussion, the prospect of a completed VET qualification gained with an RTO conferring credit for up to half of a degree course may have had great appeal to students. Decidedly so, if the entire pathway incurred lower fees than a degree obtained wholly through a university. Certainly these pathways found favour among RTOs that were also keen to take advantage of the evident status of association with a university and the consequent marketing value implicit in such relationships.

Given the focus on difference between the sectors that has marked discussion to this point, the idea of convergence across tertiary education in Australia may seem improbable. Such contradiction however attests to the complexity and scope for pragmatism in relationships between sectors. Predictably, along with the earlier documented view of education, as an industry and an economic success factor, change continued to manifest itself explicitly in the tertiary sectors of Australian education, that is in VET, HE and ACE. Inevitably change attended the escalating privatisation and consequent commercialisation of the two formal sectors of tertiary education, VET and HE. A clearly identifiable, if seemingly random, trend of convergence across tertiary education was a prominent feature of this change.

It would appear, on the surface at least, that larger, long established universities would have little to gain by diffusing their efforts into the VET sector. Moreover, pathway arrangements with RTOs might cause revenue from potential new undergraduate students to drift into the VET sector. Thus, HE institutions might incline towards capturing potential students in the first place, for example with more flexible entrance requirements and wider curriculum choice. On the other hand, it would appear most likely that the opposite would obtain for VET. From the perspective of RTOs, the market advantage derived from the prestige of association with a university seems obvious.

Increasing attention to the question of student articulation indicates that momentum towards greater convergence in tertiary education is intensifying, inevitably leading to consideration of possibilities for credit transfer across the tertiary band. Coincidentally, the issue of credit transfer across sectors had a clear bearing on the newly liberated role of assessment in VET described below. With this in mind it is worth noting that the main concern of the present study rests with the early phase of this convergence. In that phase, from the last decade of the twentieth century and into the first decade of the twenty first century, many RTOs sought and gained different types of relationships with particular universities. For VET, the escalation of

effort to propel itself into the HE sector was evident in music from early on in the emergence of the newly privatised national VET system, that is, even prior to the introduction of CBT.

Emergence of new pathways in music education

For music education this urge to merge requires consideration from at least two perspectives. The first is convergence across education sectors, particularly in those intersections that overlap across VET and HE. The second is across generic music types, essentially between the broad categories of art, or classical music and popular commercial music. Regarding the former, though this takes us beyond the chronological scope of this project; enmeshed in the shifting ground of music education is a move by RTOs into the HE sector to offer degree qualifications in music. These variations to tertiary education signal significant reformation of the culture and dynamics of music education, described above, in the broad account of traditional music education in the HE sector. In the traditional music education model HE is generally construed as a group of large, comprehensive, multi faculty public institutions.

By contrast, current trends evince a proliferation of more diverse institutions encompassing those large multi disciplined enterprises as well as those ranging in size and scope right down to smaller, though still autonomous, private enterprises that might be more accurately described as boutique in character. Typically these smaller enterprises are constrained in their offerings of courses and qualifications to a relatively limited suite of allied disciplines, or in some cases even only in a single discipline. Further countering the traditional HE model described above, these smaller private organisations are more likely to traverse HE and VET.

The realisation of this trend in music education is best demonstrated by drawing on a representative sample of institutions to provide exemplars. A fuller account of the many institutions demonstrating changes to traditional arrangements in tertiary curricula and qualification pathways is not essential to the present study. Moreover, consideration of music curricula across the gamut of music education sectors would exceed the scope of present explanatory needs. With brevity in mind then, specific institutions are cited here for practical demonstration of trends that were emerging in the establishment of an expanded VET sector in Australia in the first decade of this century. The trends indicated with reference to these institutions apply, if not exactly, then at least generally, to other institutions across Australian jurisdictions.

VET Organisations moving into HE: dual sector organisations fleeing CBT?

The escalation of the private education sector at the tertiary level denotes not only recent trends in post school education; it extends also to music education at the senior school level. Some institutions emerged along the lines of the conservatorium model and are in many ways typical of those that have come to populate the earlier quoted "150 or so other providers of higher education" noted in the *Review of Australian Higher Education* (Australian Government 2008, p. xi). The Australian Institute of Music (AIM) (Australian Institute of Music 2011) and the JMC Academy (JMC Academy 2011) serve to exemplify developments that emerged in tertiary education from the last decade of the twentieth century.

Though sharing a focus on music, these two institutions evidently arose from different cultures and communities, as have other RTOs across the states and territories. Both institutions are located within a couple of blocks of each other in inner city Sydney. They embraced VET early in the development of the AQTF, though typical of the emergence of private RTOs, in quite different ways. Thus, as private providers of music in VET, these two organisations demonstrate general trends characterising music education in the VET sector. Yet they also present a picture of the diversity of RTOs concerned with skills development for the music industry, while at the same time exemplifying the changing relationships of RTOs with the HE sector.

AIM began as a guitar school in 1968 (Australian Institute of Music 2011). Thus, AIM had its origins unambiguously based in music performance. After many iterations since that time, AIM now incorporates a senior high school on its campus, and offers senior school qualifications and VET qualifications, and university degrees up to postgraduate level. Currently curriculum covers classical performance, contemporary music performance, audio technology, arts management and dramatic performance. As well AIM offers individual performance tuition and special workshop learning activities to the wider community. AIM lists its multi sector accreditations to offer the qualifications within its scope of operation as a Higher Education Provider (HEP) with the Australian Government, a VET provider with the NSW Vocational Education and Training Board (VETAB) where it has been registered as an RTO since 1996 (National Training Information Service 2011), and a Higher School Certificate provider registered with the NSWBOS (Australian Institute of Music 2011).

The JMC Academy began offering courses in sound engineering in 1982. Its courses then encompassed technical production for music and media. Thus while AIM had its genesis in music performance, along the conservatorium style, JMC emerged from a base of technical training in sound technology, rather than music performance and composition. JMC had already

established itself as a private VET sector provider prior to the introduction of national quality arrangements through the formalisation of the AQTF. It became an RTO at a time when VET was principally delivered through the public sector in TAFE. In the early nineteen nineties, JMC expanded its development of curriculum to embrace areas beyond sound technology. Subsequently it offered a wider range of courses in contemporary music, including music performance and composition, including also composition for film. At the same time JMC maintained its core of established sound production courses and qualifications. JMC could be described as a pioneering organisation in the emerging national VET arrangements when it was registered as an RTO in 1997 (National Training Information Service 2011). At that time, prior to the introduction of the *Music Training Package* in 2001, the scope of training for which it was registered included its own courses in sound engineering and popular music business and performance. These courses were developed by JMC and accredited in NSW for national recognition under the AQTF.

During that time JMC developed an agreement with Macquarie University for the university to accept eligible JMC graduates and allow them advanced standing in an undergraduate degree in music business. Thus JMC proved to be an early adopter in realising the possibilities for articulation between VET and HE. JMC is currently registered under the AQTF to offer the Advanced Diploma of Music, Advanced Diploma of Sound Production and Advanced Diploma of Music Business from the *Music Industry Training Package 01* in addition to qualifications from the National Industry Training Packages in Business, Entertainment and Film and Television (National Training Information Service 2011). Also listed on JMC's website are HE courses in popular music encompassing Diploma of Popular Music and Performance, Associate Degree in Popular Music and Performance, and Bachelor of Entertainment (Popular Music and Performance) (JMC Academy 2011). Thus JMC, like AIM, has emerged into the HE sector in its own right.

Concurrent with the embrace of dual sector qualifications in HE and VET, a number of contemporary institutions, for example Victoria University and the Wesley Institute, also incorporate curricula in both traditional classical and popular music streams. Thus they accommodate the distinctive cultures, curricula and qualification systems of HE and VET, through the expedient of dual, but discrete delivery streams. Essentially, though not exclusively in these arrangements, popular music forms the content of VET qualifications while art music forms the content of HE qualifications. Though keeping courses, qualifications and their respective styles quarantined within their particular sector, these institutions work on a

curriculum model comparable to business schools where students may begin with a VET or HE certificate level with a range of pathways in mind, completing their studies for example, at the certificate level, undergraduate, or post graduate degree.

Thus, an additional option exists whereby qualifications from both sectors can coalesce. In the third option completion of a VET qualification specified by the institution is credited towards an HE qualification offered in the same institution. Hence a pathway between VET and HE qualifications is formed where the possibility is provided for a VET qualification to segue into a bachelor's or even post graduate degree. This outcome makes a dual sector package feasible, though achieved incrementally beginning with completion of the VET qualification as a means of transition into the HE qualification with advanced standing. Though beyond the scope of the present study, further investigation would be required to understand how such a pathway is configured. It is most likely that such arrangements would be more likely to apply, as for example in the above case of the JMC Academy, to studies in music business, or technical production. Nonetheless pathways between VET and HE seem to represent something of a Trojan Horse and it is hard to speculate upon the extent to which competence meets excellence in such arrangements.

3.6. Assessing creativity: is it "a minefield"?

Arguments against the assessment of creativity are both pervasive and persuasive. Critical concerns of industry practitioners about the feasibility of assessing creativity are recounted in the industry enquiry in Chapter Six (Conversation 1, p. 262), (Conversation 2, p. 271), (Conversation 5, p. 287). One informant described the assessment of popular music as "a minefield" (Conversation 6, p. 305). Prime among these concerns was the potentially discouraging effect upon the individual. In addition, creativity was deemed too personal a dimension to be assessed with any degree of objectivity. Certainly it is difficult to deduce how creativity might influence the assessment of creative work, no matter how tacitly.

Citing Hennessy (Hennessey 2010), Hickey identifies a problem in the assessment of creativity, in that potentially "external reward squelches creativity and intrinsic motivation" (Hickey In press). External rewards might arise, for example, where preoccupation with assessment grading proves inimical to the kind of experimentation and risk taking that characterises creativity. Conversely perhaps, discouragement may result if grades are disappointingly low. Hickey reminds us of the much documented fact, based on Sternberg's investment theory of creativity, that "most creative people's ideas are not successful the first time around" (Hickey In press),

(Sternberg, Kaufman & Grigorenko 2008). That aspect of creativity was identified by the first industry informant, who remarked that creativity could only be assessed after the event (Conversation 1, p. 261). Still, as Orzolek suggests, that claim may be somewhat ingenuous:

> Let's consider a lesson where students are asked to compose a variation on their school song. Students can build upon the knowledge and insights they have gathered from their experiences as musicians. Teachers can monitor their [the students'] progress by assessing the procedure students used to solve the problem as well as the final outcome – a piece of music. Here, the same project – writing a composition – can be used to assess both product and process (Orzolek 2007).

Hickey's view (Hickey In press), after Cropley, that it should be made clear what kinds of skills are being assessed when assigning assessment tasks (Cropley & Cropley 2007) aligns with the judgment of the above-mentioned informant. That is, it should be clear to the person being assessed whether the assessment aims to evaluate technical skills or originality. The industry informant stressed the importance in teaching practice to ensure that students understand what is being taught and what is being assessed. Accordingly, they should be given to understand the difference between convergent and divergent tasks. Equally, when being assessed they should always be informed whether the assigned assessment task aims to test convergent, or divergent skills (Conversation 1, p. 266). However it is hard to conceive that technical and creative skills could be separated for assessment in every event, especially, for example, in assessment of a performance. Because creativity presents assessment difficulties however, does not mean that it can not, or should not, be considered in assessment. Equally, the expression of creativity is unlikely to be apparent where technical fluency is absent, though conversely it is argued that creativity may result in obviation of technical deficits (Conversation 1 2003).

Further, if it is true, as reported by music industry informants (Conversation 2 2003), (Conversation 5 2005), that without creativity there would be no music industry, then it would seem that creativity is a critical dimension of assessment required for the award of industry qualifications. In this study the question of assessment also takes into consideration arguments for and against standards based assessment of the kind stipulated in CBT. It should also be kept in mind that discussion of assessment in the context of this study should be understood within an andragogical context, since the Training Package, though employed across education sectors, is fundamentally constructed on a vocational premise. To that end it is contended that assessment is aimed towards adults whose motivation is vocational.

In these circumstances it seems appropriate to presume a level of autonomy for individuals who may present themselves for assessment, though evidently the overwhelming weight of scholarship in music assessment is located in the experience of schools.

3.6.1. Examples of different assessment contexts

Aside from the formal learning environment there is also often unacknowledged learning that occurs through informal, or extra curricular musical activity. This dimension of, generally unnoticed, musical experience seems quite pertinent to consideration of music assessment. For example, along with participation in community based music activities – bands, choirs, orchestras, song writing and other composition based projects, solo and ensemble performance, music theatre and so on – competitions such as eisteddfods, festivals and other local, national and international competitions flourish. Some of these are influential and others unremarked. Often such activities involve selection through audition, that is an assessment based on actual performance, or other evidence of performance competence, such as examination results. In the case of actual competitions, selection processes evidently depend upon assessment to place participants into competitive positions.

Notions of competence and excellence are likely to be implicit in these two assessment contexts, the first being selection for inclusion in a musical group, or activity, and the second being the selection of winners in a competition. It might be speculated that for selection to be included in musical activities, or projects, a level of performance competence relevant to the task would need to be demonstrated. On the other hand, in the case of competitions, where participants are to be ranked, it is probably more likely that excellence distinguishes the top performers from among a range of competent performers. Yet the point remains speculative as to the question of whether winners might be deemed the most excellent or the most competent. Moreover this point of excellence could be the level of performance in which creativity might be implied. That is, it seems likely that demonstration of creativity may contribute to judgements of excellence, however tacit the intrinsic consideration of creativity may be.

In the more enclosed institutional setting of schools, RTOs and universities, where assessment is in most instances tied to a learning program, or curriculum, typically the learning facilitator, or teacher, or group of teachers and the assessor, or assessors are one and the same. That is with the exception of public exams and PhDs. In that instance assessment is likely to fulfil additional purposes to those already mentioned. Notably assessment is likely to be more pervasive in performance areas, since such activities necessarily involve public exhibition, even at the studio or classroom level. The following quotation concerning jazz students participating in a program at Princeton University is quoted at length as an eloquent and compelling summation of assessment being integrated with teaching and learning in a continuous loop:

> As educators, we understand that assessment is central to our mission if we are to gain insight into what is taking place in the classroom, including whether of not our students are being impacted by the instructional strategies that have been developed on their behalf. In the music classroom, we are often inclined to informally appraise their work (Abeles 2010) as we listen to them perform, experience their compositional offerings, take notice of the types of musical proficiencies they are developing, and observe how they interact with each other in the social setting of an ensemble or group. As part of this ongoing process, we then try to pinpoint those areas that may be in need of cultivation or identify concepts that might require further clarification. Next, we move to devise an educational plan of action that we believe will aid in the student's eventual growth and development of understanding. And, once we witness them engaged in another musical experience in the classroom, this cycle of appraisal begins anew (Branker 2011).

This description of assessment, applied in vivo and without interruption, evidently rises above the caveats that ushered in this consideration of assessment. Another aspect of assessment for creativity, explicated here, lies in distinguishing where creative elements reside. Thus evidently creativity may be found in different musical activities and dimensions, for example, composition, performance, extemporisation, studio production and so on.

As identified later, in the industry conversations, creativity is likely to be judged differently in different musical genres, styles and cultures (Conversation 5, p. 288). For example, judgement of creativity may favour the more original, or improvisational interpretation allowed in popular music and jazz media, or genre fusions, over the more traditional and consequently constrained mould of classical music making. For example might not the raw, though bravely original, interpretation of *Summertime* by soul/rock chanteuse Janis Joplin (Joplin 1969) be deemed more creative than the relatively traditional and highly refined, though exquisite, performance of the same aria by the great American diva Jessye Norman, even in a jazz setting (Norman 2010); or the traditional operatic concert performances of Leontyne Price with piano accompaniment (Price 1978); or Dame Kiri Te Kanawa with full symphony orchestra (Te Kanawa 1989)?

Thus, unless Training Packages can accommodate these different contexts, objections to CBT may be well placed. In Chapter Seven, creativity items from the *Music Training Package 02* are examined for their capacity to meet this array of assessment contexts. Evidently, for assessment the corollary inherent in this range of different contexts suggests that consideration must be given to the diverse purposes in undertaking assessment. Perhaps then an integrated approach to assessment, linking technical skills and creative expression, might be more likely to emerge.

Continuing the theme of assessment contexts apropos the case study under investigation, National Industry Training Packages outline different contexts of assessment. In the context of VET in schools, in NSW at least, the integrity of the Training Packages has not been assumed by the NSW board of Senior School Studies. This is evident to the extent that an exam has been superimposed on the Training Packages approved for years 11 and 12. Evidently this both

ameliorates the practical ethos of the Training Package and accommodates a more "bookish", or at least text based, ethos ingrained in the culture of schools.

To this extent Training Packages, in NSW at least, serve three or four discernable contexts of assessment. One is to meet the cultural and academic aims of the NSW Higher School Certificate. Another is to meet the diverse aims of the students, whether remaining at school by choice, or whether compelled by law to remain at school until either attaining full time employment after the age of fifteen, or reaching the age of seventeen. Another is to serve as a template for course development for schools, for RTOs and for the ACE sector, and in a few cased for universities. Another is to stand as an assessment blueprint as the basis for individual, or group assessment events by way of recognition of competence for specified Skill Sets or industry backed qualifications.

The adoption of standards based learning is not unique to Australia. Unlike Australia though, the United States has implemented standards for schools since 1994 to:

> …serve schools by providing a framework for the school curriculum. Standards serve teachers by providing the learning goals that their students should achieve. The National standards for Arts Education are written in two levels: (a) Content Standards, which specify broadly what students should know and be able to do. And (b) Achievement Standards, which specify the understanding and levels of achievement that students are expected to attain in the content standards.
>
> National and state standards provide strong and comprehensive statements of expectations that serve to ensure quality and accountability in the school music programs. They serve as the learning targets for building the Core Conceptual Competencies (Hartenberger 2007).

The language of these standards is familiar. In demonstrating how the standards can be adapted for school music curriculum the author provides a "Core Conceptual Competencies Taxonomy Table" that sketches "Knowledge Dimensions" in five areas, of which one is "Synthesis/inventive" and this dimension is linked to a "Cognitive Process Dimension" that indicates "to reflect/construct". It is stated that this dimension of the taxonomy involves composition and improvisation (Hartenberger 2007). Seemingly then creativity is captured in this scheme.

In another explication of the Consortium of National Arts Education Associations, 1994, National Standards for Music Education, it is espoused that: "The foundation for successful assessment is a well-organized, sequential, standards-based curriculum" (Odegaard 2007). This account encompasses a sample curriculum framework for Standard 3 – Improvisation. In the detail the student is to improvise accompaniments in a graded chord process the first exercise using only tonic and dominant and the incrementally expanding the pallet of chords for the accompaniment. This is an inventive series of tasks. As the standards are set out, for example, 1

for singing, 2 for instrumental performance, 3 improvisation, 4 composition, 5 reading music, 6 listening, 7 evaluating, 8 music and other disciplines and 9 music history, this would seem to be the basis for a reasonably comprehensive learning program to develop technical, theoretical and creative skills (Odegaard 2007).

Of interest in the scheme is that the benefits are defined and:

> Students know what is expected of them; Concrete evidence of student learning without bias; Students are responsible and held accountable for the work they do and general rubrics for each standard can be used for many tasks (Odegaard 2007).

These standards are graded into levels for different stages of musical development.

3.6.2. CBT and the decoupling of assessment from formal learning

The Australia competency system presents a conspicuous departure from traditional approaches, for example, recognition that pathways to VET qualifications may be many and varied. Thus, it is possible to gain VET qualifications without having to undertake any formal education or training courses in an institutional setting. Under AQTF arrangements, an experienced practitioner may gain formal qualifications in the CBT system through an assessment only process. This recognition process allows competence to be assessed, regardless of how the pertinent vocational skills have been acquired.

Relevant vocational skills are specified in the competency standards, or Units of Competency that form part of each National Industry Training Package. The blueprint for assessment is mandated in the Training Package relevant to the vocation in which a qualification is being sought. Recognition of competence is dependent upon the demonstration of the skills specified by the relevant Units of Competency from the applicable National Industry Training Package. Essentially, the Units of Competency form the assessment instrument for each of the more than eighty vocational areas, or industries, covered by a Training Package. The *Music Industry Training Package 01* covers artistic, technical and business skills required in the music industry.

Under the AQTF mandated CBT system, formal qualifications may be based on satisfactory completion of a course delivered by an RTO. They may also be based on a successful submission to an assessment only process, formally termed RPL, and/or RCC. In the second case formal qualifications are subject to satisfactory assessments to the Units of Competency that comprise the specific qualification being sought. A third option is recognition for one or more Units of Competency without seeking a qualification. The latter, seemingly complex recognition process, is clearly at variance with the more traditional ethos of academic learning described earlier, based on notions of excellence and integration of learning and assessment.

Hence, though the single common factor in any pathway to the achievement of VET qualifications is assessment to the relevant Units of Competency, flexibility on the learning side of the total educative process is a significant underpinning of the CBT system.

For music this is attested in the proliferation of RTOs with music amongst their offerings. Debate surrounding the apparently overtly radical separation of assessment from formal learning processes has relevance to the case study as, evidently, the more flexible CBT approach may have significant implications for specifying the development of creativity. Whether or not closer investigation of debate over that separation leads to a better understanding, certainly a broad explication is called for as to how creativity might be advanced in music education.

A corollary of the decoupling of assessment from training as an aspect of CBT is that assessment, as it consequently applies in the Australian VET sector, assumes a significantly new and arguably innovative role that is manifest in Training Packages. Essentially, in becoming an autonomous locus of skill identification, plainly detachable from the process of learning or training, assessment is explicitly elevated in importance in the Australian CBT system. The significance of this aspect of CBT, and the deep cultural interruption thus posed to accepted notions of education and assessment, becomes more apparent in analysing competency. Nevertheless, perhaps surprisingly, that interruption is distinctively less for music than for other areas of technical and further education. As evinced below, separation between learning and assessment has long and powerful precedents in music education.

3.6.3. The AMEB: another competency based assessment system

The closest and most standardised demonstration of competency based music systems, outside of the VET purview, is found in highly pervasive and influential national and international assessment only bodies such as the AMEB (Australian Music Examinations Board 2011) and Trinity College London (TCL) (Trinity College London 2011). These, and other comparable privately established bodies, conduct examinations across a range of areas, for example, instrumental and vocal performance, speech and drama, music theory and music teaching. In Australia AMEB examination results are widely accepted in public and private school settings, universities and RTOs, presumably as indicators of musical competence. As well, achievement levels recognised through assessment by these bodies are widely used as guides for participation in the types of musical activities described earlier. In addition, while the AMEB is not recognised equally across all state education authorities, nevertheless AMEB examination

results can be presented by students in some states as partial or even full completion of music requirements. In other states AMEB can be presented as an alternative to the music curriculum developed by relevant state boards of senior schools' studies. Thus, though the AMEB has wide currency, the level and type of recognition given for senior secondary certificates, or tertiary entrance is not equivalent across states and territory school boards, or by individual institutions across the tertiary sector.

The AMEB conducts assessment for music candidates. Candidates undertaking AMEB examinations usually study with private music teachers. Such teachers are not required to hold formal music qualifications, though many do. Examinations cover various levels from preliminary standard up to Diplomas of different levels. Rather than being a standards based mechanism, graded AMEB assessments are based on a series of set syllabuses for music studied outside of the formal education system.

In the AMEB system, syllabuses are developed and published for each grade, and type of instrument, or area of learning. These provide the basis for assessment through examinations offered in separate streams, for classical or popular music performance, music theory, or speech and drama. In addition to developing its own syllabuses, the AMEB recruits, selects and contracts examiners to assess candidates in various locations across all states and territories in Australia. The AMEB program takes in rural, regional and metropolitan areas and examination results are commonly used as a means of gauging the level of theoretical and practical skills of individuals for a variety of purposes. For example, they are used at the tertiary level to provide guidance for those seeking entrance into music courses (University of New South Wales 2011), (University of Western Sydney 2011), or other music activities across the education spectrum. They are also used as an indicator of competence for entrance into community based musical activities and organisations. With syllabuses setting out the standards of repertoire for each grade, and type of skill, essentially the AMEB system may be construed as a competency based assessment model.

Rather than specifying outcomes, as in the competency model, the AMEB syllabuses set out lists of pieces from which each candidate selects works to perform in the examination. Other examination requirements for musical tasks and general knowledge for each of the grades, are also set out in the syllabuses, in a somewhat similar way to the performance criteria of industry competency standards. In addition to the specified repertoire and tasks for each grade: "Each syllabus contains a set of objectives which provide guidance on examiners' expectations of achievement at each level" (Australian Music Examinations Board 2011).

As well as managing routine music and other examinations, the AMEB promotes the organisation to the music education community, encompassing state education departments, private instrumental and vocal teachers, schools and tertiary institutions and policy making bodies. The organisation maintains relations with the state school boards in all states, some more closely than others, as indicated by the fact that the AMEB is formally approved for inclusion in the high school curriculum of some, but not all states. In NSW the AMEB is linked into the curriculum of the Board of Studies, in that it may contribute to the Higher School Certificate credential as an alternative to the Board of Studies developed music courses for Higher School Certificate and School Certificate.

Though providing workshops and feedback to studio teachers, these private organisations are assessment only bodies, essentially separated from the direct learning environment. It is unsurprising therefore that unlike more academic, mainstream curriculum areas, demarcation between the sites of learning and assessment is not new to music.

Until the last ten years or so, the AMEB system was concerned only with traditional forms of art music, divided into Baroque, Classical, Romantic and 20th Century. This continues to be the dominant culture of the AMEB. However, a separate popular music stream has been developed and implemented more recently for candidates to be assessed in popular music.

At the fundamental level, that is preliminary to fourth grades, a number of assessment dimensions are stipulated for the popular music examinations under the heading *Assessment Criteria* (Australian Music Examinations Board 2006, p. 7). These assessment criteria are listed under categories such as general performance, technical work, set works, free choice and so on. "Creative" forms one of these headings and stipulates the following criteria:

- Rhythmic and melodic creativity
- A steady sense of time and rhythm
- Appropriate articulation and phrasing
- Appropriate dynamics and tone (Australian Music Examinations Board 2006, p. 7)

These criteria are applied to assessment of the candidate's improvisation of a melody over one of two set backing tracks using a simple progression of three basic chords. The examiner chooses one of the prescribed backing tracks, one of which is in rock style and the other in swing. The same criteria are stipulated under the heading "Creative" for fifth grade up to Certificate of Completion (Australian Music Examinations Board 2006, p. 15). Again the examiner chooses from two prescribed backing tracks, one in rock style and the other in swing, though in this case comprising a 12 bar blues progression over which the candidate must improvise.

Evidently creativity has been considered in the development of this popular contemporary music assessment system. Without consultation with examiners in the system however, it is hard to quantify the level of creativity expected of candidates in the examinations. For instance it is difficult to understand how such skills as “a steady sense of time and rhythm” would contribute to a demonstration of creativity. Moreover, evidently all but the first criteria may be demonstrated to a very high degree without a modicum of creativity being demonstrated. Nonetheless, the syllabus requires all candidates to demonstrate improvisation in the examination and that is a musical form where creativity may be readily assessed.

3.7. Conclusion

This chapter explored the wider space of Australian music education in which the VET case study resides. Attention focused on music education at the systemic level, as well as less formal extra curricular music programs. Duly, music education in the VET sector was considered as part of the broader scheme. Analysis of the relationship between learning and creativity in music education emerged in considering notions of excellence and competence. Standards based education, or competency based learning and assessment, such as that detailed in the United States national schools', and AMEB, curricula, formed part of that discussion.

The significant place of VET in the education continuum was identified as a crucial factor for the study as a whole. Also important was VET's complex mix of interactions with sectors across the continuum. Privileging of competence over excellence, and vice versa, were seen to enliven opposing educational discourses. An element of simplification was evident in that discourse, no doubt exacerbated by the political nature of the debate.

Consequently, comparison between "traditional" curriculum structures and those based on CBT is equivocal. This is especially so, given an apparent lacuna in systematic research on the assessment of creativity in "traditional" music education. Though noted, this does not present a challenge to the present study, whose remit is to evaluate the fitness of CBT for learning and assessment of creativity rather than to draw comparisons between CBT and other learning and assessment traditions.

Finally some, though not all of the creativity questions mentioned earlier in the chapter, can be addressed in concluding this chapter.

3.7.1. To what extent is creativity a gift, a behaviour, a competence, or a skill?

Implicit in the United States Standards for music education in schools is an assumption that creativity is both a competence and a skill. Further, seemingly suggestive of the need for addressing creativity, the assessment only AMEB program requires improvisation to be examined in its popular music stream. Like the AMEB, assessment only pathways to qualifications are available in the CBT system. This is through the provision for RPL and RCC.

3.7.2. To what extent can creativity be learned?

While broad accounts of music education in this chapter have not addressed this question directly, both the United States Standards for music education and the AMEB syllabuses specify creative learning and creativity. In the case of new work emanating from the *Symposium on Assessment in Music Education* (Brophy & Lehmann-Wermser In press), learning and assessment of creativity is built into the curriculum through the United States Standards for improvisation and composition. In the absence of specification for creativity in other areas of music, for example, performance, the degree to which creativity is accommodated outside of improvisation and composition is difficult to discern. Of crucial interest though is the strong implication that standards allow for creativity to be specified for the purposes of learning and assessment.

3.7.3. How can we know that it has been learned?

Evidently, much work remains to be done in the area of assessing creativity. Hickey points to the need to be clear with students about what is being learned and what is being assessed in terms of technical skills or creative responses (Hickey In press). That view coincides with a view expressed in the industry conversations in Chapter Six (Conversation 1, p. 266). Certainly the need to specify the required outcomes for learning and assessment underpin this view.

However, manifestly, assessment contexts vary, to the extent that in some instances, splitting technical and creative skills may pose problems for assessment. Evidently the United States standards for music education have demonstrated that creativity can be specified in the curriculum, at least to some degree, and for some areas of music practice. This seems to signal that if creativity can be specified for learning and assessment in such models as the United States standards for music education, then it is more likely that we can identify when creativity has been learned. Certainly, creativity must be specified if it is to be systematically assessed.

This premise will be applied in Chapter Seven in evaluating the specification of creativity in learning items from the *Music Industry Training Package 01*.

4. Research methodology

Case study method is used for this research, focused on CBT for the music industry. The case study is a purposive sample of creativity related Units of Competency from the *Music Industry Training Package 01*. Two information sources on creativity are examined for alignment with these CBT creativity items, one is the creativity literature and the other, an enquiry into creativity from conversations with industry practitioners. Two broader enquiries frame the case study, one investigating the genesis of CBT, in Chapter Two, and another investigating music education and cultures, in Chapter Three.

The primary research question is: can creativity be accommodated in the competency system? CBT items from the Australian music industry form the case study for the research. Accounts of creativity are used to scrutinise a purposive sample of creativity related Units of Competency from the *Music Industry Training Package 01* to consider their fitness for accommodating creativity.

The aim of the research is to examine the extent to which the competency system is suited to the development of creative skills for aspiring popular music practitioners, and those already working in the popular commercial music industry. Learning and assessment for creativity in the music industry are core to the primary research question. Given the proliferating role of VET across the education spectrum, detailed in the previous chapter, CBT learning and assessment instruments for creativity may have broad implications for music education.

While the research is likely to hold interest for other creative and cultural industries, it is not the aim of this study to compare CBT in VET with learning methodologies or practices in other educational sectors. Rather, it seeks to evaluate selected CBT items relevant to creativity. The place of creativity in the music industry is viewed implicitly and explicitly through this project. An understanding of creativity is key to the study. The intrinsic or aesthetic values of creativity, though clearly relevant, are not the subject of this research.

Signalling the practical orientation of the research, creativity questions, outlined in Chapter One, are used to integrate and consolidate the creativity enquiries. Some of those questions were deployed in the previous chapter. They are used more comprehensively, however, in Chapters Five and Six, the two creativity chapters. Contiguous with the primary research question, these questions are used to marshal and distil information on creativity from diverse sources.

4.1. Research method and design overview

The choice of method for this qualitative research project raises a problem similar to that noted later in Chapter Five. There the role of choice as a dimension in the work of creative artists is likened to that of the researcher attempting to construct a cogent enquiry. Similarly, investigation of qualitative research methods evokes a cacophony of voices, practice, knowledge and theory, challenging the researcher seeking to make valid and effective methodological choices. Opportunely, ambiguity is eloquently defended by Denzin and Lincoln in their introduction as editors of *The Sage Handbook of Qualitative Research,* a comprehensive 1200 page study of qualitative methods:

> We share a belief in the limitations of positivism and its successor, post-positivism. Lincoln brings to the project the disciplines of education, psychology, and history, whereas Denzin's grounding is in sociology, communications, anthropology, and the humanities. Our respective biases have shaped the construction of this volume and have entered directly into our dialogues with each other. Although we do not always agree – for example, on the question of whether paradigms can be crossed or integrated – our two voices are heard often in the following pages. Other editors, working from different perspectives, would define the field and contract this book in different ways, choose different spokespersons for the various topics, focus on other concerns, emphasize different methods, or otherwise organize the contents differently (Denzin & Lincoln 2005, p. xii).

In this particular case, the researcher is imbued with multiple voices from a background imprinted by experience across multiple domains. Further, diverse voices, from both textual and direct personal input, inform this research. In response to this circumstance, the present inquiry leans to a pragmatic approach. The term pragmatic is used here in its most mundane interpretation, that is, not within the cultivated discourse of philosophical theory, nor in the qualitative sense of grounded theory (Charmaz 2006, p. 184). Nevertheless, as elaborated in this and following chapters, the researcher endeavours to remain alert to potential contention and epistemic challenges, most particularly through application of the creativity questions.

Attention to creativity discourses and meaning drawn from the narrative of practitioners in conversations are grist for the mill in this enquiry. Notwithstanding the contentious nature of the CBT paradigm, flagged in Chapters Two and Three, analysis of contention surrounding CBT is secondary to the ambit of this study. Rather, multiple voices and perspectives are brought to inform an evaluation of the fitness of the competency approach for developing creative skills in the popular commercial music industry.

Allowing for argument over various approaches, and consideration of the merits of a range of qualitative research methods, the main consideration in undertaking this project is to bring the

most effective means possible to bear on the enquiry. Rapport's stance on the subject of qualitative research methods that seems apt to the present study:

> It is the rigidity that highlights the major difference between conventional methods and their less conventional counterparts. The development of new qualitative methods, underpinned by new methodologies, encourages the retention of a sense of the 'unknown'. Researchers within new qualitative methodology hold an interest in the process of discovery and are prepared to take first-hand responsibility for the research findings and subsequent conclusions, irrespective of the group. The need to arrive at a conclusive endpoint is secondary to the process of discovery and leaving nothing to chance is seen as counter-productive, reducing the creative spirit and weakening the process. Leaving nothing to chance undermines the challenge of the unexpected (Rapport 2004, p. 13).

To allay any apparent irony in the use of this particular citation, it must be noted that this is not to claim, or even to suggest, that the research methodology employed in this study is unconventional. Yet, the primacy of enquiry and discovery firmly at the heart of Rapport's account seems prescient to the exigencies of this project. Case study is an appealing option for this qualitative research project, precisely because it allows for "the process of discovery". The music industry case study is exploratory and as such is not designed to arrive at a conclusive end point beyond developing and understanding of creativity as a basis for evaluating CBT items on creativity. Thus, case study, an established and relatively conventional qualitative method, and apparently in that sense discrepant with Rapport's view, is used here precisely for the reflexivity it affords.

4.2. The Case study

The case study, drawn from CBT documents for the popular commercial music industry, is used to focus on the fitness of CBT for the learning and assessment of creativity. Relevant items from the *Music Industry Training Package 01* (CREATE Australia 2001), the mandated CBT instrument for music education in the VET sector, form the hub of the overall enterprise. These selected creativity items from the *Music Industry Training Package 01* are scrutinised to ascertain the extent to which creativity is, or might be, specified in formal competency instruments. The rationale for this methodology is fourfold:

- Firstly, creativity is a complex and perhaps mysterious phenomenon with unpredictable outcomes and would therefore not readily be accommodated in a mechanistic scheme, such as competency based methods are alleged to be.
- Secondly, if the study can demonstrate that creativity can be adequately specified in its full complexity, to the extent that the development and assessment of creative skills can be facilitated, then the competency scheme is, at least to some degree, vindicated.

- Thirdly this method allows one dimension of skill to be the focus. Consequently, the number of items being analysed can be contained to about eight of the hundred or more similar items that form the *Music Industry Training Package 01*.
- Fourthly this method may be replicated in future studies that might focus on other discrete skills and therefore may be tested.

4.3. Data sources

A number of data sources inform the research. Three of those anchor the research:

- First is a literature enquiry analysed in Chapter Five. This enquiry investigates creativity across popular and scholarly domains.
- Second is a set of conversations with music industry practitioners. These are analysed in Chapter Six. This enquiry investigates creativity through conversations with teachers, creative artists and artist managers who work in the popular commercial music industry.
- Third is analysis of a purposive sample (Patton 1990) of CBT items, relative to creativity, analysed in Chapter Seven. These are examined for correlation with the first two information sources to evaluate their fitness to deal with creativity.

Two further investigations provide information to frame and situate the case study. These are:

- The first, in Chapter Two, investigates the gene sis of the competency system, explicating the socio-political and economic contexts of CBT in Australia.
- The second, in Chapter Three, investigates music education across the educational spectrum and the nature of learning and assessment for creativity.

As an investigation into a discrete issue, case study method (Kalof, Dan & Dietz 2008, p. 143), (Yin 1994, p. 1), (Cohen & Manion 1985, pp. 120-48), is considered well suited to this research on a number of grounds. Functioning as a case study, CBT in the music industry both scaffolds and centres the research. This allows attention to follow relevant lines of investigation to provide sources of data for analysis. Multiple dimensions that give context to education and training for creativity in the music industry can, thereby, be observed systematically. Most compellingly, this method permits triangulation of two creativity data sets with the selected competency items. Concomitantly it allows for the case study to be viewed from broader economic, industrial and educational contexts, thereby facilitating synthesis, and grounding the project.

Thus, information was garnered from enquiry into the creativity literature, and through conversations with music industry practitioners. Enquiry was to include practitioners' views on the specific items from the CBT model for developing creativity in the music industry. This aim was revised, however, for reasons elaborated later under the heading of challenges to the research. Still, as well as allowing multiple foci in the research, the use of case study method allows information from these different sources to inform analyses of actual CBT instruments.

Specifically the research design allows for the research to:

- ground the case study in its cultural, economic, industrial and educational milieu
- investigate creativity from accounts in the literature
- investigate music industry practitioners' perceptions of creativity
- examine directly how creativity is accommodated in specific items of a CBT instrument
- correlate the literature and the views of practitioners with analysis of the CBT items.

4.3.1. Intrinsic case study

Focusing on a particular aspect of music training, that is education and training for the popular commercial music industry, this research constitutes a single case study (Yin 1994, p. 38), (Kalof, Dan & Dietz 2008). The case study may be described as an intrinsic case study, as defined by Stake:

> The case is given. We are interested in it, not because by studying it we learn about other cases or about some general problem, but because we need to learn about that particular case. We have an intrinsic interest in the case, and we may call our work intrinsic case study (Stake 1995, p. 3).

Though amenable to self containment, the music industry case study is situated in, and draws attention to, the national Australian VET sector of the educational spectrum. As indicated in Chapter Two the AQTF, agreed by state, territory and national governments, embraces national arrangements for VET. This agreement includes mandated CBT and training materials that are intended to harmonise training and qualifications nationally for each of the eighty or more industries currently recognised under the agreement. Incrementally it is intended that similar mandated materials will be developed to cover – critics may say colonise – more industries over time. As outlined in Chapter Two, these mandated training materials, known generically as "Training Packages", constitute the common delivery mechanism of CBT under the AQTF.

Notwithstanding the intrinsic interest and particularity of this case study, the research is likely to have some relevance for CBT and other VET programs more generally in cultural and creative industries. It may hold interest even for more general or traditional industries.

4.3.2. Problems for the music industry case study

As elaborated below, some challenges for the research are overt, and, being readily anticipated were relatively easy to address. Other, more covert, challenges emerged only during the course of the research. These sometimes required more carefully determined strategies to be implemented virtually *in medias res*, or at least after preliminary data gathering began. Problems in both of these categories, overt and covert, are addressed in the design and methodology of the research. Others are flagged here for their potential influence upon the orientation and/or, outcomes of the research. Some of the more overt problems and strategies used to manage them in the research are outlined below.

Contention over the competency approach to learning

As observed in Chapter Two, the CBT system was essentially imposed upon the cultural industries in the wake of the much remarked industry restructuring that began in the 1980s in Australia and in other economically developed countries. Unsurprisingly, the introduction of this new training system, based on the development and assessment of competency, provoked deep concern among the cultural industries. This concern was exacerbated by the fact that the Australian version of the competency system had been instigated, driven and chiefly lead by the metals industry. Though certainly the most overt and predictable of issues, this controversy deserves mention. Consideration of the issue, however, requires careful restraint to prevent it from eclipsing the broad aim of the research, which is to investigate relevant CBT instruments to evaluate their fitness for facilitating the development of creative skills.

A broad approach to the competency literature is taken as a means of understanding the fierce debate that attended its emergence and implementation. Apart from references, where relevant to the controversy attending the competency system, these matters of more political import are not given specific focus in the study. The nature of controversy over the competency paradigm is outlined in Chapter Two. There the context of initial agitation surrounding the competency system is broadly described in grounding the case study. Further mention of the controversy is found in Chapter Three in discussion of particular education sectors and their respective cultural traditions and aspirations. For the most part, attention is primarily on learning and assessment of

creativity. The controversy over the general merits of competency based training remains a subsidiary consideration.

Disparity in industry knowledge of competency based learning

Also related to the controversy noted above, it is probably true to say that opposition to the competency regime is more evident in the education and training sector than in the music industry itself. Evidently that is not because music practitioners are more supportive of the competency format than music educators. Rather, music practitioners generally have little exposure to, and consequently knowledge of, the new paradigm. Indeed, as evinced in Chapter Six, practitioners in the popular music industry have markedly diverse experiences across the learning continuum from informal to formal.

The significance of this issue emerged in the preparation and execution of data collection involving conversations about creativity with industry practitioners. These conversations with music educators in VET and HE, and those working more directly in the music industry, contributed to a study, in Chapter Six, of the significance of creativity for the music industry. Conversations conducted with VET practitioners indicated at least a general acquaintance with competency principles, though unsurprisingly that was not the case for HE. It is clear that the national training system greatly occupies the minds and efforts of those working in the VET sector. Yet asymmetry of knowledge is evident, even among VET professionals.

In undertaking industry conversations it was initially intended that practitioners would comment specifically on the selected Units of Competency. Nonetheless, the first conversation on the competency items found an educator involved in delivering competency based training disinclined to comment directly on any of the actual Units of Competency sampled for the study. Thus, it seemed likely that music industry practitioners who, unlike VET educators, had no experience with CBT, would be even less inclined to engage directly with the competency items.

Having identified that the knowledge and understanding of CBT of informants was likely to be difficult to ascertain, the objective of focusing interviews on the competency items was amended. Still, copies of the selected creativity related Units of Competency and trigger questions were provided to each informant prior to meetings. Though each informant was provided with copies of the selected Units of Competency, general questions were not tied to the competency items in the conversations. Rather, while not specifically excluding direct

comment on the competency items, the questions aimed to trigger responses that could capture the experience of practitioners in developing their own creativity, or that of others.

The aim of this more general and reflexive approach was to facilitate discussion about how musicians develop creativity, while obviating the need to comprehensively educate informants on the competency system. In the event, though the opportunity remained for informants to comment on the competency items should they wish, no informants opted to directly address the specific Units of Competency provided to them. Most were willing to speak about the notion of competency in no more than the most general terms, though all were very forthcoming in their views about how musicians develop creatively.

Currency of the Music Training Package

Another matter inviting attention in the project is the live nature of Training Packages. These documents all remain to some extent works in progress. This aspect of the project is addressed in Chapter Seven, where Training Packages are explicated in some detail. In brief, the average life of a Training Package is approximately five years, though changes may be agreed from time to time during the currency of the package. After that period, the package becomes due for review. That industry Training Packages are periodically reviewed and amended and, sometimes, completely replaced at some time over approximately a five to seven year cycle, is potentially problematic for this research. In that context the *Music Industry Training Package 01* has been reviewed, redeveloped and replaced during the period of this research.

The *Music Industry Training Package 01* was endorsed for implementation in 2001. The creativity items, or Units of Competency, selected for this case study are from that edition. The current iteration, the *Music Training Package 09,* has now been implemented since 2010, after a year of transition from the *Music Industry Training Package 01*. This is not considered problematic, as the orientation of this study is a proof of concept enquiry. Its aim is to probe potential in the selected Units of Competency rather than to critique CBT. Units of Competency selected for this research are not substantially changed in the current Training Package, though some elements have been redistributed.

4.4. Ethical considerations

As indicated in the ethics submission, approved at the outset of this research, the industry conversations posed the singular ethical consideration for the research. These were undertaken

with music industry practitioners to investigate creativity in the popular commercial music industry. Participants were asked to speak about the role of creativity in their work.

Ten potential informants were identified for the project, including teachers, creative artists and artist managers. A letter, at **Appendix D**, though printed on UTS letterhead, was sent to those industry practitioners requesting an interview. Questions to be considered, at **Appendix D**, and eight Units of Competency, at **Appendix C**, were enclosed with the letter. Informants signed a consent form, at **Appendix D**, prior to the conversation. Questions asked of the informants were neither confidential nor controversial.

As indicated in the consent form, at **Appendix D**, the six practitioners who participated in the research agreed to have their conversations audio tape-recorded. They also agreed for their names not to be identified. This confidentiality encouraged informants to speak freely of their personal experiences and insights concerning creativity. Transcriptions of those recorded conversations are at **Appendix B**. Any references identifying informants have been removed.

4.5. Two creativity studies for triangulation with the case study

The following two studies were designed to explore accounts, theories and experience of creativity, ranging from theories of creativity to the practical experience of music practitioners. The purpose of these enquiries was to scaffold evaluation of the fitness of the CBT items for developing creative skills. As explained in the following section, the usual literature review process was modified to become a literature enquiry. Thus, the literature, and industry informants, were interrogated for information that could be applied to analysis of the case study.

4.5.1. Study one: the creativity literature enquiry

In Chapter Five, the first creativity enquiry scrutinises creativity through the popular, professional and scholarly literature. Here diverse accounts and definitions of creativity are identified and critiqued. Responding to the clamour for creativity emerging from multiple perspectives and agendas, creativity literature traverses a multiplicity of domains and themes. Literature selected for attention in this enquiry spans popular and scholarly discourses. The work of theorists, scientists and popular writers representing numerous disciplines, and most known general fields of interest and scholarship, is interrogated in this enquiry. Sources include business and government through to popular self development, as well as arts and cultural studies, psychology, science, philosophy and education.

The need to marshal and distil information from such diverse sources presented a significant challenge to the literature enquiry. A comparative, or even dialectic, approach to the literature seemed unsuited to such an enterprise. Further, the multidimensional and multidisciplinary character of the noisy creativity literature, characterised by vastness and wide-ranging opinions, challenged systematic coverage and investigation. Mitigating these difficulties, information derived from the literature was considered around a set of questions. These were questions most relevant to the purpose of the study. By this means information about creativity could be guided to the purpose of the study, rather than being a discussion of the relative merits of different creativity theories and accounts, a more common practice in the literature review. The creativity questions, set out in Chapter One, and again below, form an important part of the organising scheme for the research:

- to what extent can creativity be described and/or defined?
- how is creativity apprehended, perceived and understood?
- what factors are most likely to be associated in manifesting creativity?
- to what extent is creativity a gift, a behaviour, a competence, or a skill?
- to what extent can creativity be learned?
- how can we know that it has been learned?
- What is the significance of creativity for "productive practice/success" in the context of commercial music markets?

These creativity questions, devolved from the primary research question, underpin the literature enquiry and place some parameters around it. They provide impetus for the enquiry while allowing a degree of openness and reflexivity necessary to draw relevant, and frequently rich, information from the literature. Balancing the problem presented by the vastness and diversity of the literature reviewed, with the need to focus enquiry, the questions enable literature references to be condensed from the literature more broadly reviewed. This strategy is justified on functional grounds. It enabled exemplars of some apparent categories of creativity to be extracted from the broad sweep of creativity literature. It also allowed specific dimensions of creativity to be identified and delineated, thus expanding insights into how creativity is most likely to be promoted in practice. Systematic application of the creativity questions allows insights to be captured and distilled into literature findings to assist analyses of the case study.

The creativity questions also pervade other chapters in the study, where approaches to creativity and the conditions and circumstances in which it occurs are considered both in general and in music making. Thus the creativity questions fulfil a number of functions in the research. They prompt the selection and analysis of literature. They allow consideration of the wider creativity literature to be targeted. They can be considered in the context of music and other arts related literature on creativity. They also enable creativity to be explored in the more embodied dimensions, that is, in actual application to music or other domains.

Apart from the final question, which pertains specifically to music, the creativity questions impart coherence while addressing the wide span of creativity literature across domains. It was not intended that the creativity questions be answered systematically through the enquiry. Rather, they serve more generally as prompts to advance conceptual coherence. They are deployed explicitly in concluding the literature enquiry to delineate findings.

While these questions scaffold the creativity inquiry, content headings direct the literature enquiry chapter. These headings serve to maintain structural coherence as creativity is investigated through some of the diverse areas of creativity literature. Findings from the creativity literature enquiry ultimately form a point of reference for triangulation with the selected creativity items from the CBT documentation that obtains for the music industry.

4.5.2. Study two: music industry creativity enquiry in conversations with practitioners

In Chapter Six, the second creativity enquiry explores music industry perspectives of learning and creativity. This enquiry is developed through conversations with a number of expert music industry and music education practitioners. For this part of the study, industry practitioners were invited to speak about how they perceive the relationship, if any, between creativity and learning, and between creativity and the popular commercial music industry. The conversations were based on a set of open questions derived from the creativity questions above. Similarly these were intended to serve as prompts rather than to be systematically canvassed. This process echoed the method in which questions were deployed to shape the literature enquiry. Thus, they were not intended to be addressed in a chronological or systematic way, but to encourage openness and reflexivity in conversations with participants while sustaining the focus of the creativity questions applied in the literature enquiry, and in analysis of the conversations.

As already noted, an initial interview led to a refocus of how the interview questions were managed. As a result the initial method of communication with music industry practitioners,

through a set interview structure, was modified to a more conversational style, effecting a more open ended process. Those reflexive conversations captured rich information on the role of creativity from the diverse voices of working musicians. That information was analysed and refined through the creativity questions, as was the case for the literature analyses. Thus information gained from the creativity conversations, like the creativity literature, proved feasible as a triangulation site for assessing the case study items.

Potential informants were identified through contacts available professionally to the researcher. Ten industry practitioners were invited to participate in a one on one conversation about their own experiences and views on learning and creativity in music. Invited practitioners were drawn from different areas of practice in the commercial music industry, including, education, composition and performance.

Each letter of invitation sent to practitioners included the list of proposed questions and copies of the Units of Competency selected for the case study. Participants were asked to consider the proposed prompt questions, set out below, as a guide to the intent and content of the conversation should they agree to participate. They were also invited to look at the Units of Competency for optional comment, and to offer any further insights they felt were not captured in the prompt questions.

Prompt questions

The following questions were provided to informants:

1. What is creativity in music and what is its importance?
2. How do you define the outcomes and conditions for developing creativity in music?
3. Are there creative and non-creative aspects to being a musician and if there are, can or should they be treated differently in training and assessing students aspiring to a career in the music industry?
4. How is creativity important in composing, improvising, performing and musical direction and/or studio production and how would the role and importance of creativity be described for any or all of these?
5. What were the best features of your own musical training for developing creativity?
6. How have you developed your creative skills, and/or, those of your students? Can you say what strategies you have found most effective?

7. What aspects of your training for musical creativity would you like to have improved? Can you say in what way?

8. What advice would you give to educators about teaching and assessing the creative aspects of music for musicians aspiring to a career in the music industry in any of the following areas: composing, performing, improvising, directing live performance, producing a recorded performance, teaching composition and/or teaching instrumental and/or vocal performance? The following headings may be helpful:

    - Specifying appropriate creative outcomes
    - Strategies and training interventions required to best achieve the outcomes
    - Role of the tutor in supporting the development of creative skills of aspiring music industry practitioners
    - Role of the aspiring practitioner in developing creative skills (for example, evaluating work, developing strategies and processes to expand creative skills and so on)
    - Evaluation and assessment of creative processes and products.

Feedback on the units of competency selected for the case study

You may wish to consider the creativity items in any of the music standards attached for their relevance to training and assessment for developing creative skills to succeed in the industry.

General comments

Are there any other comments that you wish to make in relation to:

- The nature of creativity for success in commercial music production
- The acquisition of creativity in music
- The relative degree of creativity across the standards provided; that is, is it more important in some than in others and if so in what way?
- The capacity of the competency approach to develop creativity, with particular reference to the attached competency standards, that is, to what extent can each one support training and assessment for creativity in music?
- What changes might be needed to any of the standards provided to improve their capacity to assist in developing creativity?

4.5.3. The case study: CBT creativity items and triangulation

In this study attention focused on CBT items from the *Music Industry Training Package 01* (CREATE Australia 2001). These items, Units of Competency in formal CBT parlance, form the case study. Initially they were known as Competency Standards, a term that was replaced after 1996 with the development of Industry Training Packages, though both terms are now interchangeable.

Purposive sampling was used to align with the essential concern of this study, learning and creativity. A purposive sample (Patton 1990) of eight Units of Competency was selected from the *Music Industry Training Package 01*. Selection was based on the premise that only Units of Competency with explicit components of creativity would be relevant to the research. The selected items are part of more than a hundred Units of Competency in the *Music Industry Training Package 01* that contribute to music industry qualifications.

The rationale for taking a sample only was to ascertain whether creativity was specified in those Units of Competency sufficiently to facilitate the development and assessment of creative skills relevant to music industry practice. The sample is a combination of "typical case", the Units of Competency being typical of those found in the *Music Industry Training Package 01* and "criterion based" as each of the selected items meets the creativity criterion (Patton 1990), and is used in conjunction with triangulation.

The Units of Competency in this purposive sample are listed below. They are scrutinised in Chapter Seven for correlation with information from the first and second creativity studies described above. The questions that guided investigation in the creativity literature enquiry and industry conversations were used again here to guide triangulation of those two information sources with the eight selected Units of Competency. As indicated by their titles in the list below, the Units of Competency were selected for their specific relevance to different sites of musical creativity:

- Create original music
- Provide tuition for composition
- Perform Music as a Soloist
- Provide instrumental/vocal tuition
- Develop and practice improvisation
- Perform improvisation for audience

- Develop and implement sound production for a recording
- Develop self as artist.

4.5.4. Strengths and limitations of the methodology

The strength of case study method for this research is that it allows the selected CBT Units of Competence to be evaluated for their fitness to accommodate the development of creative skills. At the same time it invites enquiry into the multiple dimensions in which CBT dwells, essentially it's underlying political, social, economic, educational and cultural dimensions. Investigation across those domains uncovers many, often competing, accounts, stances and agendas concerning creativity. Thus, the method facilitates investigation into a range of relevant domains that can inform evaluation of the Units of Competency to effectively address the primary research question; can creativity be accommodated in the CBT system?

Application of information from these multiple sources to the Units of Competency allows the broader grounding of creativity, and specifically musical creativity, to be built up prior to the introduction of the selected CBT items. Serving as exemplars of the competency paradigm, as enacted in the music industry, the selected Units of Competency form the primary material of the case study. Notwithstanding the previously remarked mutable aspect of Training Packages, of which Units of Competency are a foundational plank, the Units of Competency selected for the case study are a fixed point in the context of this research project.

As the focus of the study, the selected Units of Competency form the key reference point for the research. Addressing the research question, can creativity be accommodated in the competency system, the two creativity enquiries, the literature and conversations with industry practitioners, provide multiple accounts of creativity against which to evaluate the selected Units of Competency through a process of triangulation.

In addition each investigation, the genesis of CBT, music and education cultures, the creativity literature, industry conversations, serves its own internal purpose. For example, the account of the rise of CBT provides essential contextual information on the case study. Similarly the account of music education and contrasting cultures of education sectors and music genres provides a crucial cultural perspective for VET as a participant in the broader education spectrum, and the study of popular music in that context. The literature enquiry investigates diverse approaches to creativity and, through the creativity questions, synthesises approaches to, and theories of, creativity to a distilled account. Industry conversations capture direct experiences of creativity from a more embodied source, music industry practitioners. These too

are distilled through the same questions. The Units of Competency are then correlated for convergence with those two information sources.

Though the Units of Competency used for the case study have been recast in the development of a subsequent Training Package, this study remains a valid evaluation of the competency paradigm. Indeed research centred on items from the more recent Training Package is, for practical purposes, beyond the reach of this study. Notwithstanding the focus of the present study as a snapshot in time, further work could, for example, take a more historical, even longitudinal, approach to CBT.

5. Creativity: accounts from the literature

Analysis in this chapter is based on enquiry. The literature enquiry takes in a broad creativity scope. It embraces popular literature on creativity, as well as scholarly domains such as philosophy, psychology, music education, composition, performance, musical direction, musicology and aesthetics. Cognitive science is included in the study for its contribution to learning theory and creativity. In concluding the chapter findings of the enquiry and analysis of the selected creativity literature are condensed to a distilled account of creativity in music.

5.1. The creativity literature enquiry in context

Here attention shifts from the industrial, economic and educational analyses of previous chapters to an enquiry into creativity literature. This enquiry explores perceptions of creativity from a broad perspective, though some attention is given to the place of creativity in music. The literature enquiry draws on relevant accounts of creativity from the literature to inform evaluation of CBT items for the music industry in Chapter Seven.

Indicating a snapshot of comparative interest in the concepts of "competency", "creativity" and "innovation", a cursory key word search of the world-wide-web finds 2,300,000 references to competency (Google 2009b), 63,900,000 to creativity (Google 2009c) and around 116,000,000 to innovation (Google 2009d). Though highly aggregated, these results suggest general interest in creativity to be significantly greater than in competency, and interest in innovation to be significantly greater than in creativity. Further, a combined key word search of "creativity" and "innovation" found a comparatively sparse 3,200,000 references (Google 2009a). Taken together with the single keyword searches for creativity and for innovation this suggests that innovation is the aspect of creativity of greatest general interest. Though considered in broad terms as part of the creativity literature, innovation is not the focus of creativity in this literature enquiry.

The association of creativity with innovation, industry and global markets relevant to the broader socio-economic context was considered in Chapter Two. While acknowledging the broader literature, enquiry in the present chapter considers creativity mainly, though not exclusively, in its association with culture and artistic products, that is, in the context of using imagination to develop ideas or products in an artistic setting. From this standpoint, innovation is construed as a sub-set of creativity. That is, one that denotes the introduction of novelty or change, or the application of new modes of action, usually in an economic milieu. This

contained reading of innovation in connection with industry, commerce and global competition accords with the prevailing association of the term innovation with commercial exigencies, a theme of tangential interest to the present study. Nevertheless, in covering the popular creativity literature, business is not excluded, nor is science, though the literature is selected for the degree to which it appears to directly address creativity.

Creativity is considered here from a range of positions including from a broad music perspective. Thus attention is not confined here to popular music, or the commercial music industry. Given that the case study focuses on popular music, a genre closely linked with commercial markets and, concomitantly, with the VET sector of the Australian education spectrum, music industry perspectives on creativity are elaborated separately in Chapter Six.

To cast a sufficiently comprehensive context, other types of music, that is to say other music cultures, are considered broadly in the present chapter, allowing consideration of creativity in its application across musical styles. In this wider musical purview, popular music is viewed as one or, perhaps more precisely, as various cultures. Though many categories of music occupy market spaces, commercial music is typically understood to imply popular music.

Manifestly, popular music has a commercial imperative as its end purpose, and therefore to some extent, at least, its measure is economic. In so far as popularity is most likely to be the indicator of success for popular commercial music, popularity may be estimated in economic outcomes. For serious, or art, music on the other hand the measure of its success depends more on the opinions of critics who are "experts" in the field. Though distinctions between popular and art music may have specific implications for understanding creativity in different musical milieus, this line of speculation lies outside the scope of the present project.

In addition to music composition, performance and technical sound production, creativity in music also extends to a broader environment of related activities such as music education and presentation. Nevertheless, music presentation is incidental to this study.

5.2. Scope of literature enquiry

The literature enquiry draws on a range of creativity-related domains in and beyond the realm of music, and embraces both scholarly and popular creativity discourses. The literature is principally drawn from the domains of philosophy, the cognitive sciences, education and music. Yet, as noted below, the creativity literature does not lend itself to neat divisions or a taxonomic approach. Multi-discipline domains closely concerned with creativity are also considered.

Scholarly discourse is drawn mainly from disciplines traditionally associated with creativity: philosophy, psychology, education and the arts. Fields such as arts criticism, commentary and education allow reflection on specific and applied viewpoints. Cognitive science, layered as it is across the disciplines of philosophy, education and psychology, is included in the study for two reasons. First, it is a vehicle for disclosing relevant knowledge being advanced about learning and creativity through experimental research. Second, it is a fulcrum of philosophical questions of critical interest to the scope, qualities and manifestations of creativity. Consequently, it is a touchstone for attitudes to, and speculation about, creativity.

Reflecting how the themes of creativity and innovation have been merged and how these notions have captured popular interest, some attention is also given to the more general literature currently available in the public domain. There creativity has seemingly come to be presented as a panacea for a range of social, spiritual and economic deficits. Consideration of popular creativity discussions is drawn mainly from the areas of business and public policy. There attention is drawn to popular and industry-based literature, conference activity and public media coverage to the closely linked concepts of creativity and innovation. As remarked earlier these notions have imbued the imagination of industry, government and sections of the public to a greater extent than the arguably more pedestrian realm of competency. The competency literature is largely confined to the domain of vocational education and training, government, academe and pockets of industrial interest. Recalling the previous chapters, this research calls for an enquiry that encompasses creativity in terms of skills and competence and must engage with the question of the extent to which creativity can be conceived as a skill or competence.

Enquiry in the literature concerning creativity, and learning for musical creativity, anticipates further perspectives on creativity and learning for creativity in the music industry through the course of this study. For example, in Chapter Six consideration of creative skills for musicians is informed by conversations with music industry practitioners from a range of areas of practice. In that chapter the music industry and its scope are more thoroughly delineated for the purpose of this study. Remaining attentive to the wider perspective of the study, however, “art” and “commercial” music are broadly defined and differentiated in the present chapter. In Chapter Six more detailed attention is given to notions, functions and processes of learning and assessment concerning creativity. There, musical creativity is considered in the context of the current competency system and implications of the competency system as it obtains for music education in the VET sector and the music industry.

5.3. Analytical orientation of the literature review

In addition to insights and opinions garnered from the literature, viewpoints, knowledge and experiences drawn from a variety of sources have influenced the analytical orientation of this literature enquiry, and the method of analysis. In a general sense these sources also give focus to some encroaching issues for identifying creativity in music. Such multiple influences contribute generally to the overall scaffolding of the literature analysis. In a practical sense, for instance, a number of general questions about creativity, detailed in Chapters One and Four, are framed to indicate the context and scope of the literature enquiry. A creativity account is distilled from those questions. That account is gathered through the literature enquiry for application to CBT case study.

More immediately, identifiable influences on the literature enquiry include data collection and analysis completed for later chapters prior to beginning the creativity literature investigation. The Chapter Six conversations, for example, were completed and transcribed prior to completing the present chapter. This brings the influence of ideas and direct experience of music industry and music education practitioners to bear on the literature analysis. Ideas from the author's prior postgraduate studies in musicology and ethnomusicology are also evident in this enquiry for the emphasis placed on cultural issues (Sotheran 1992). This draws on semiological approaches to music and musical creativity articulated by Treitler (Treitler 1982), Nattiez (Nattiez 1990) and Molino (Molino 1990), that have close relevance to the identification of music cultures.

5.3.1. Culture and creativity

Unsurprisingly, insights gained from scholarship in musicology and ethnomusicology draw attention to the significance of cultural factors in approaching the investigation of creativity. Though attention to cultural exigencies is uneven across the creativity literature, the cultural dimensions of creativity are evident in much of the literature. The conception of music as communication is concomitant with the cultural conception of creativity, enacted and manifested within, and conditional upon, specific identifiable cultural contexts and norms.

This notion is evident in the Chapter Six conversations with music practitioners and other industry informants. Further, it corresponds with ethnomusicological scholarship where music generation, performance and reception – or consumption as it might conceivably be described in the commercial context of this study – is understood to be a form of communication within a distinct cultural milieu, or complex of milieus. The conception of music as communication

raises ontological and semiological aspects, inviting input from musical semiologists (Treitler 1982), (Molino 1990), (Nattiez 1990).

In the ethnomusicological framework music in all of its dimensions and manifestations is perceived not merely as existing in a static sense, or as a finite product, but as a dynamic cultural force within a multi dimensional cultural locale, or locales, of time and place. The cultural mores of communities are not constant and change occurs within most cultures, if at different rates and in varying degrees. For popular commercial music, the exploitation of fashion is a business necessity, making change a significant and dynamic factor within commercial music settings where the "shelf life" of popular commercial music is arguably shorter than for products in many other global industries. The physicality of fashion products such as clothing or furniture, for example, necessitates a more extended production to purchase timeframe compared to media products, such as music, that can be directly distributed via downloads through electronic channels.

In this study, the cultural underpinning of creativity is not construed in the conventional anthropological sense that embraces ethnocultural difference. Rather, it is considered here in a sociocultural sense, to connote different types of musical audiences, genres and styles, or ways of musical being and reception. Nevertheless, Blacking's succinct and useful explanation of the role of culture, drawn from an anthropologically based ethnomusicological framework, (Merriam 1964), (Nettle 1983) pays attention to the inherent import of cultural factors for creativity:

> Concern for the sound as end in itself, or for the social means to the attainment of that end, are two aspects of musical creativity that cannot be separated, and both seem to be present in many societies. Whether the emphasis is on humanly organized sound or on soundly organized humanity, on a tonal experience related to people, or a shared experience related to tones, the function of music is to reinforce, or relate people more closely to, certain experiences which have come to have meaning in their social life (Blacking 1974, p. 99).

In merging these aspects of music, the artist, the work, the audience and the sociocultural environment in which it is created, Blacking (1974), Merriam (1964) and Nettle (1983) all position the art maker as cultural agent. Further, they draw attention to a conception of music as shared understanding, or at least, experience. Notably, the notion of artist in culture challenges the lone genius conception of creativity, raising the question of where the source of creativity resides. Inevitably such views are not confined to the province of music, but are shared across scholarly domains. In more recent theorising, for example, cognitive scientist Merlin Donald audaciously declares:

> …human culture is essentially a distributed cognitive system within which worldviews and mental models are constructed and shared by members of a society. Artists are traditionally

> at the forefront of that process, and have a large influence on our worldviews and mental models.
>
> …art has been so instrumental in defining cultural periods and in providing tribes, of whatever size and complexity, with their self-identifying symbols and allegories. Though the term *metacognition* customarily refers to individual self-reflection, I use it especially to denote art's crucial role as a collective vehicle for self-reflection and as a shared source of cultural identity (Donald 2006, p. 5).

Notwithstanding the complex of contentions prompted by Donald's undoubtedly provocative cognitive torpedo – chiefly if construed as a self-limiting cognitive definition of culture – the ethnomusicological and cognitive approaches proposed by Blacking and Donald respectively may be readily applied to popular music and popular music markets, especially given that, overall, these markets reflect diverse and distinct styles, fashions, and more fundamentally, cultures. The social notion of art making is useful in addressing the demographics of popular music and the diversity of distinct styles reflected in popular music and popular music markets. In that sense a sociocultural conception of creativity is, at least tacitly, embedded in building judgements about creativity.

5.3.2. Contested conceptions of music and categorisations of music cultures

Implicit in this sociocultural perspective of art, in this case music, is a communicative function, a dimension that has, up until recent times, been excluded from consideration in traditional musicology. In the more conservative reaches of formal musicology the significance of "extra musical factors" remains contentious. That is, principally, cultural, ontological and especially "political" factors, or indeed any implication of meaning beyond the empirical structure of musical works. This tradition goes back at least to Gautier's nineteenth century romantic ideas of art for art's sake (Gautier 2006), first published in 1834, and music formalism (Hanslick 1854). The conception of art as an autonomous activity has since appeared in many guises, first on the side of the romantics, then only twenty years later, in the case of Hanslick, on the side of the conservatives, or, formalists.

Hanslick denoted a growing antipathy to the increasingly heroic scale of Wagner's exploitation of the grand myths and legends, musically expressed in radical new operatic works, through what at that time seemed incomprehensibly relentless harmonic tension. Wagner delays the resolution of harmonic dissonance over longer intervals of time within sections and subsections of the operas to an extent hitherto unprecedented in Western European music, pushing tonality to the point of defying harmonic expectations. This practice aroused the ire of musical conservatives whose appetite for relative tonal consonance, or harmony, he exhausted to the point of cognitive resistance. Having the benefit of more than a century and a half of hindsight,

and consequent enculturation into increasingly diverse levels and qualities of dissonance across the multifarious realms of Western music, it would be churlish to dismiss Hanslick's views (Hanslick 1854) as mere musical obduracy. This is particularly so as Western thought appears to have evolved to a point where even extreme outbreaks of dialecticism have come to be enlisted as instruments for admitting truths, half-truths and perhaps even non-truths, to discourse on aesthetic worth. This holds for music, or consideration of domains such as philosophy and the neurosciences. Norris captures the formalist view traditionally associated with Western art music as conceiving music thus:

> …an objective mode of existence quite apart from the vicissitudes of cultural context and reception-history or the vagaries of individual listener-response (Norris 2006, p. 20).

The formalist view, represented by Hanslick (Hanslick 1854), was subsequently challenged, though more than a century later, by an influential group of music theorists and critics that came to be known as the referentialists. Prominent in this group, Cooke (Cooke 1964) and then Kivey (Kivey 1980), construed music as having a subjective, even emotional dimension that not only reflects, but that interacts with, personal, cultural, political and like forces. The formalist versus referentialist dispute diminishes in intensity, while concomitantly increasing in complexity, as ethnomusicological studies uniting research methods from anthropology and musicology (Nettle 1983), matures and assumes a more compelling and influential position in academe. Accordingly, the referentialist position is admitted to the scrutiny of scholarly investigation. As Norris observes:

> Thus the music-philosophy relationship has been marked by a curious dialectic of mutual attraction and repulsion, or – less dramatically – of shared interests mixed with a certain degree of reciprocal mistrust. On the musical side this latter response is most often a product of the inverse suspicion that whatever philosophers might value in music could only have to do with its formal properties or with concepts at the furthest possible remove from the register of sensuous experience (Norris 2006, p. 17).

Consequently, the slippery areas of meaning in music and the emotional dimension of music proposed by referentialists Cooke (Cooke 1964) and Kivey (Kivey 1980), and eschewed by formalists such as Hanslick (Hanslick 1854), may be understood to further confound the study of creativity in music. Yet such debates exist in a philosophical continuum harking back to tenacious and more ancient philosophical traditions. At least from Plato onwards, the value of music, its existential purpose and its aesthetic worth have occupied an important and fascinating place, most prominently in aesthetics. Bunt draws attention to Plato's exhortation in Book 3 of *The Republic* against the affecting properties of music. There Plato attributed mood-inducing powers to the musical modes of the time. The Lydian mode for example is associated with melancholy, the Ionian with indolence, and the Dorian with aggression (Bunt 1994, p. 69).

Though deeper consideration of these musicological debates exceeds the scope of this study, contested conceptions of music hold significance in attempting an understanding of creativity. Apropos these conjectures, the formalist end of the continuum, if it still holds relevance, and the more traditional streams of musicology, have closer relevance to serious or art music, that is to say, the sphere of Western art music traditionally studied in the academic stream of the education spectrum.

Given that the present study is primarily concerned with creativity in the context of popular commercial music, the cultural perspective of ethnomusicology seems an appropriate starting point. Therefore, to the extent that musicology is relevant to the study, ethnomusicology is preferred for its explicit emphasis on cultural referents as distinct from the complex of more traditional domains in musicology where on the whole, certainly up until the last twenty years, cultural considerations have invited less attention.

Turning to broader cultural debate within the European framework, Adorno's sociocultural critique of the commodification of music (Adorno 1991) appears inimical to the ethnomusicological perspective and dire for the possibility of creativity in music. Commenting on the proliferation of sound, Adorno views its corollary as: "…the reduction of people to silence… It is perceived purely as back-ground. If nobody can any longer speak, then certainly nobody can any longer listen" (Adorno 1991, p. 30). In the tradition of privileging art music over popular music, Adorno deems the use of the serious music for commercial purposes improper and classifies popular commercial music as "the lower music" (Adorno 1991, p. 35), on which he further postulates:

> Here, too, listeners and products fit together; they are not even offered the structure which they cannot follow. If atomized listening means progressive decomposition for the higher music, there is nothing more to decompose in the lower music (Adorno 1991, p. 49)

The purpose of selecting these discriminatory quotations from Adorno's work is not to deride the sum of Adorno's complex cultural and musical critiques. Rather, it is intended to render his somewhat relentlessly desolate view of creativity, a view furnishing dismal prospects for the flowering of creativity in any musical domain, least of all at the level of "lower" music. With due respect to his acknowledged, though not universally accepted, critical influence on cultural theory, Adorno is quoted selectively here to disclose issues relating to the scope of this study. However, while admitting the underpinning significance of culture in the consideration of creativity, a close investigation of cultural issues is beyond the remit of this study. Nevertheless, Adorno's categorisation of music into a binary division, between what he terms higher and

lower music, provides a kind of framework which to some extent emphasises the difficulties encountered in articulating meaning and definition for art and for creativity.

Notwithstanding the pejorative tenor of Adorno's judgments, the present study does not implicitly exclude popular commercial music from the category of art, though attempts to address such divisions are outside its scope. Thus, for the sake of clarity, a distinction is made between art music, Adorno's higher music, generally, though inaccurately, termed "classical" music, which is not the focus of this creativity study, and popular commercial music, which is the focus.

5.4. Defining creativity

Discussion thus far signals the potential for intractability in defining creativity. Yet, as a significant and implicit constituent of any discussion of creativity, definition requires explicit attention. Fundamental encroaching and enmeshing politico-cultural dimensions, such as, for example, ethos, agenda, process and reception, challenge attempts to hold a feasible, consistent and comprehensive account of creativity. That is, even supposing application to a specific instance, place or area of practice. Problematic at best, the prospect of a robust, or even useful, definition is likely to recede at every remove from particularity towards generalisation. Some theorists take generalised approaches to creativity (Antonietti & Cornoldi 1999), (Simonton 2009), (Sternberg & O'Hara 1999b), (Briskman 2009) while others propose modified general theories of creativity (Deleuze & Guattari 1994), (Koestler 1975).

The diversity of views reflected in the literature exacerbates the task of defining, or even describing, creativity. At one end popular, and even scholarly, literature manifests a mainstream position of effusive and unquestioning faith in what amounts to a creativity ideology. Concomitantly, critique, caution and qualified resistance flickers at the more marginal, perhaps dissident, end of the spectrum, where a complex of creativity enquiry ranges across degrees and qualities of scepticism.

The prolific popular and business creativity literature, sampled generally in this chapter, tends to be relatively homogeneous in character though it traverses a number of fields. Change has been noticeable, however, over the last fifteen years as increasingly academic writers have come to populate the general literature. Still, unsurprisingly perhaps, the critical end of the creativity frontier yields a more diverse and complex array of perspectives. Examples of diversity at the critical end are illustrated in the following accounts, one a relatively measured philosophical viewpoint, and the other a strictly theological viewpoint.

Notwithstanding the provocative title, in *Against 'creativity': a philistine rant*, social theorist, Osborne, advances a thoughtful evocation of, and support for, the views of prominent French philosopher and creativity theorist Deleuze (Osborne 2003). Osborne's critique of the creativity discourse takes aim more at the popular commercialisation, where creativity is transacted as a positional good. This does not reveal him to be, so to speak, a creativity denier. Rather, Osborne extols Deleuze (Deleuze & Guattari 1994) as a philosophy activist and creativity sceptic. Citing Deleuze as one who "would have to stand as our paradigmatic witness against compulsory creativity" (Osborne 2003, p. 515), Osborne invokes a qualified appeal to philosophy:

> …philosophy cannot actually take a legislative role in relation to creativity… a smattering of philosophy may be useful – albeit in a minimal sense – in the endeavour to produce a critical attitude to the creativity explosion (Osborne 2003, p. 515).

The Catholic Church, albeit an incongruous bedfellow, also stands with the dissenters, though somewhat idiosyncratically. Predictably however, its opposition to the unconditional embrace of human creativity is advanced essentially on theological grounds. Speculative Vatican policy literature implies the Catholic Church's demarcation of creativity in the suggestion that "creativity cannot be an authentic category for matters liturgical" (Benedict 2000). Conceivably, since the Renaissance, tension in harmonising the notion of ultimate Divine Creator with humanist ideals of creativity has caused unease in mainstream Christianity. How to balance the attribution of the source of creativity between divine and human agencies?

Yet it would be wrong to imply that Christian theology precludes creativity from the human realm. Rather, creativity is dissociated from human claims in relation to liturgical music, as clarified in the following declaration on liturgical music: "…we ourselves do not manufacture but receive as a gift" (Benedict 2000). This view accords with the central belief affirmed by Christians in the leading statement of the Creed: "I believe in one God, the Father Almighty, Creator of heaven and earth, of all things visible and invisible", a view that may be construed as a specifically Christian caveat on what Osborne terms "compulsory creativity".

Implicit in the Christian view, of God as the ultimate creator, is the conception of a supreme muse presiding over all spheres sacred and secular. This notion is evocative of ancient Greek and Roman pantheons of divine muses. Though unlike the monotheistic Creator of Christianity the ministrations of earlier supernatural entities were specifically assigned to different realms of creativity. Nevertheless the role of the Christian Creator, like that of the ancient muses, equates to the most heroic of creativity constructs considered so far. The notion of artistic invention as received gift also looks forward to the Romantic conception of muse, albeit though the Romantic view carried a more disembodied and enigmatic view of the muse as the wellspring of

creativity. This is, perhaps, more of a humanistic conception of the artist as an autonomous man god. In considering theological values of Christian belief concerning creativity we are alerted to the place of Christianity as a formative European cultural influence, whose creation narrative is central to that tradition, and a powerful thread in the continuing history of ideas about creativity.

Notwithstanding equivocation and prevarication, the need to define, or at least account for, creativity must be addressed. In deference to the difficulties uncovered by the literature a flexible approach is considered most appropriate to meet both practical and philosophical concerns. In a practical sense a questioning approach is preferred as a means of incorporating consideration of seemingly disparate under-currents confronting the task. In a philosophical sense a flexible, even permissive, approach seems most useful to acknowledge, while intentionally seeking to breach the epistemic dilemmas already remarked. Illustrating such dilemmas is the previously noted dispute between formalists, or autonomists, demanding objective absolutes, and referentialists, taking a more embodied position.

Supporting a middle-way Norris addresses the rift between absolutists or sceptics, and the realists, with a more pragmatic view, declaring support for "the moderate, non-'metaphysical' realist" who, he advises, would find advantage in:

> … conceding that 'truth' so far as we can know it is by very definition epistemically constrained, but turning this argument around – *contra* the sceptics – to show that such anxieties are surely misplaced since they result from nothing more than the failure to accept this straightforward, unproblematical fact about the human epistemic situation (Norris 2006, p. 22).

Accordingly, earlier discussion broaching the function of culture in forming enquiry about creativity is recalled in seeking to account for creativity, while at the same time admitting that art is multidimensional, consisting at least of technical as well as personal and social considerations. Accepting the epistemic dilemma and taking music to contain form as well as meaning, the approach to creativity in this study draws on Gilbert Ryle's thick description, articulated by anthropologist Clifford Geertz as an interpretive method that seeks to fix "not the event of speaking, but the 'said' of speaking" (Geertz 1973, p. 19).

Based on analysis of the information derived from the creativity literature and with this interpretive approach in mind, a provisional account of creativity is attempted in this chapter. This account is refined through the application of a series of creativity questions detailed in Chapters One and Four. Here, and in the following chapter, accounts of creativity are identified and distilled, through the same creativity questions, to inform later analysis of CBT for the commercial popular music industry, the case study at the heart of this research.

5.5. Assessing creativity

In the Western tradition creativity is customarily deemed an essential component in art making. Yet the identification and disaggregation of creativity as a component, distinct from others required to produce art, complicates the task of identifying and extracting the creative dimension of a work. If definition of creativity poses difficulties, then assessment of creativity appears to be an even more distant prospect. Moreover, general discussion of creativity, or even discussion at the level of specific arts practice, is challenged by the diversity within and across individual art forms. Additionally, contested judgements on aesthetic, moral, and other typically culturally distinctive, grounds make definition, and more, assessment of creativity, inherently problematic. Inevitably, in assessment and music criticism, aesthetic and cultural debates over music of different styles, times or cultures, or indeed over the role of music itself, are fused.

Such enduring and seemingly intractable problems are inescapable in this literature enquiry. Assessment of creativity, whether undertaken by qualitative or quantitative means, must inform judgement of how and when creativity may be said to be present, absent, or perhaps, relevant. Judgement of creativity raises many questions. How can we know what is creative? How can we know when creativity is present? What is creativity in the context, for example, of a particular art form, or for music in general, or a given musical style? Further, if we can identify that creativity is present how can the quality of that instance of creativity be understood and measured? Furthermore, if creativity can be established in one instance what, if any, relevance can that have to other singular contexts, or instances of creativity, or potential creativity?

A substantive issue for the case study is illustrated in the fact that assessment of creativity for commercial popular music brings its own particular values which do not obtain in criticism and assessment of “art”, or “serious” music. Explicit among these values is that criticism, or holistic judgement of popular commercial works, is likely to be associated with reception. Thus, typically, the actual or even potential, commercialisation of the musical work in a market context is likely to be a consideration in assessment. This occurs notwithstanding the extent to which creativity in the work, whether assessable or not, might contribute to the commercial success of a work. Evidently, the relevance of creativity to the judgement of the “unseen hand of the market” is moot, and recognition of artists and music awards in the commercial context depends largely, though not entirely, on market success.

These values have not been the tradition for art music genres, long associated with concert halls and opera houses. In the case of serious music, as with other “high” art forms, judgement is more likely to be promulgated by professional critics and commentators. They are most likely to

be tertiary trained expert journalists and/or academics. Though the concert music industry is heavily invested in marketing concerts and recordings through retail and online sales, recognition is less likely to be awarded on the basis of sales figures. Typically, this is the music of long departed composers and, to a lesser extent, living composers trained in the HE sector. Moreover, art music is customarily, though not exclusively, performed by tertiary trained musicians constrained not only by formal dress and traditional settings, but also by longstanding mores and customs inescapably associated with "classical" performance.

Though debate may rage among the initiated over performance values, and interpretation of music scores, the score binds each work. Where there may be room for interpretation, improvisation even, its form is bound by custom. Performed in the formal settings of concert halls, art music is almost entirely composed by individuals, notwithstanding vocal music where the setting is likely to have been originated by a literature-based artist. This is in contrast to popular music practice, where pieces are often devised and performed in a group process, though popular commercial music presents itself in diverse forms, and not always in groups.

The market driven milieu of popular commercial music, and the importance of fashion to its style and content, suggests ethnomusicological approaches as the most appropriate framework for considering assessment of any dimension of popular music. Taking the relationship between performer(s) and audience in popular music as a form of collective creativity, Sawyer advocates a sociocultural approach to explain musical creativity (Sawyer 2006, p. 4). Citing market research by radio stations and commercial radio advertisers to identify consumer taste for country songs, he argues that mass audiences can collectively contribute to the creativity process causing performers, to "shift their songs to suit shifts in consumer taste" (Sawyer 2006, p. 231). In deference to the complexity of commercial music however, he emphasises that this approach may not apply to all musical genres. Alternative rock, or rap, he asserts, do not typically follow the same assembly line process of production (Sawyer 2006, p. 231).

Thus discussion of creativity invites attention to a number of complex clusters of implicit, tacit and explicit factors likely to attend music assessment generally. Subsequently the assessment of creativity as a component of music, or a singular type of music, or musical culture, is subject to its own range of specific considerations.

5.6. The creativity literature

Turning to more general creativity discussion, the indiscriminate and haphazard genesis of creativity literature conveys tangled themes through multiple discourses and domains. Such

unwieldiness defies attempts to shape literature analysis around neat and discrete contours. The diffuse, effusive and often random character of the literature finds creativity conceptualised, in some instances, in a highly generalised theoretical dimension. Yet in others a populist perspective obtains. Further, most typically in specific areas of practical creative practice, creativity might be conceptualised in an applied practical framework. Such circumstances produce asymmetric points of purchase for attempts to review competing and intersecting themes. This gives a somewhat precarious footing on which to articulate systematic analysis. Though some general comparisons between different views on creativity may be attempted, the diffuse and asymmetric nature of the literature on the whole renders comparison difficult.

In mitigation of these problems, an investigative approach to the selected literature is elected as the scheme for analysis, rather than a comparative or taxonomic approach, making this a literature enquiry rather than a literature review. Burgeoning interest in the subject of creativity, across many fields, encompasses both qualitative and quantitative approaches, though, taking into account the quantum of popular literature on creativity, the literature is weighted to the qualitative side. The extensive range of literature available potentially provides breadth and depth to the discussion of creativity, informing reflection on the elements, dimensions and potential enablers and inhibitors of creativity across domains both within and beyond the arts.

On the other hand, the diverse and seemingly endless quantum of creativity literature presents a dilemma to the researcher. This predicament resonates with a view expressed by prominent Australian composer Peter Sculthorpe, who advises that a significant challenge in his creative practice is the need to distil the compositional elements from overwhelming possibilities available (Hughes 1998). This view of creative practice, resting on choices that must, implicitly at least, include relevant elements from a potentially inestimable range of possibilities, coincides with the views of creativity expressed by long established commentators on the subject. Koestler, for example, identifies selection as the prime component in his trinity of essential components for creativity, followed by a seemingly paradoxical duo of exaggeration and simplification, disclosing his view on selection thus:

> Its direction depends on the distorting lenses in the artist's mind – the perceptual and conceptual matrices which pattern his experience, and determine which aspect of it should be regarded as relevant, which not (Koestler 1975, p. 334).

Koestler privileges choice as a key factor for creativity, albeit in a seemingly binary and, apparently, ontological process of sorting the relevant from the irrelevant from within the boundaries of one's experience. So for the researcher, in this case study at least, the task of determining the scope of the literature to be considered, defending the choices made and

establishing the analytical compass, presents a similarly challenging process of selection and elimination. An admission by Albert and Runco in their chapter *A History of Research on Creativity* offers guidance, succour even, to the researcher:

> The title we have given this chapter is meant to signal to readers that we recognize that the history we describe is one among other possible histories of the same subject. This chapter truly presents *a* and not *the* history of research on creativity (Albert & Runco 1999).

Thus the literature selection in this chapter is one among potential selections. This necessarily includes and excludes many possible narratives and interpretations pertaining to creativity. As clarified below, given the expansive quantum of literature available on creativity, broad investigation of the literature is honed to a more parsimonious selection of items that promise the most relevance to the investigation. To this end specific creativity questions serve to draw out the most relevant exemplars from the rather noisy creativity discourses.

5.6.1. Navigating creativity: romantic, pragmatic and other accounts

Traditionally considered to be an essential, if not sufficient, component of the processes and products derived in and through arts practice, creativity has come to be associated with a more diverse range of endeavours. A scan of the literature finds creativity liberated from the traditional prism of the arts and from the romantic, or subjective and mystical, versus the objective. It is now propelled into more diffuse clusters of connections across constellations of domains embracing the scholarly, the esoteric and the practical. Creativity continues to be idealised, in a way akin to the alchemic quest to transform base metal to gold. Nonetheless, arguably, in the light of attention to economic exigencies considered in the previous chapter, the pendulum has swung somewhat to the instrumentalist end of the spectrum. There creativity has become firmly associated with commercial acquisition. Still, that is not to suggest that the full gamut of creativity theory can be reduced to a binary construct. Nor is it to suggest that pragmatic motivations for the consideration of creativity are new.

Evolving conceptions of creativity reflected across the literature are far from earlier individualistic notions of the godlike genius portrayed by Lévi-Strauss and quoted late into the twentieth century:

> Since music is the only language with the contradictory attributes of being at once intelligible and untranslatable, the musical creator is a being comparable to the gods, and music itself the supreme mystery of the science of man (Storr 1992, p. xi).

Essentially, the grandiose, romantic approach that privileged creativity as a mystical all consuming act of divine import – usually associated with struggling, typically male individuals of heightened artistic sensitivity, meagre means of support and super-human powers – has

evidently been overtaken, particularly over recent decades, by more wide-ranging speculation on, and models of, creativity. At the pedestrian end of the continuum an instrumentalist preoccupation prevails. There consuming passion segues into consumer passion in the opportunistic sense of exploiting creativity directly and pragmatically in pursuit of economic objectives. In this discourse a virtual mantra of innovation is evoked. In Chapter Two, attention was drawn to the instrumentalist rhetoric that propelled education into an emerging economic discourse. Similarly in this chapter it can be seen that creativity has gained entry to the tool kit of critical success factors for global market competition:

> The economic importance of creativity is clear because new products or services create jobs. Furthermore, individuals, organizations, and societies must adapt existing resources to changing task demands to remain competitive (Sternberg & Lubart 1999a, p. 3).

Thus the literature confronts a multiplicity of themes, in responding to the clamour for creativity emerging from multiple perspectives and agendas across a gamut, embracing business and government through to popular self development and the domains of arts and cultural studies, psychology, science, philosophy and education. To balance the problem presented by the vastness and variability of the literature reviewed with the need to focus enquiry, direct reference to literature actually appraised across many creativity sites is invoked selectively on two functional grounds. One is to provide exemplars of some of the apparent categories within and across the broad sweep of creativity literature. The other is to consider the creativity questions, specified in Chapters One and Four, that loosely guide and prompt this creativity enquiry.

5.7. Questions guiding the literature analysis

Questions guiding selection and analysis of the literature are set out in Chapters One and Four. These are the creativity questions that underpin the research as a whole. Apart from the final question, which pertains specifically to music, the creativity questions address creativity across domains. They are applied overtly here only in concluding the chapter. There in distilling analysis of data drawn from the literature enquiry they frame and clarify the findings.

The creativity questions do not engage in consideration of the fundamental value of human creativity, that is to say arguments for or against human creativity. In any case, apart from the explicit theological caveat noted earlier, it is inferred, at least tacitly, across the literature surveyed, that human creativity is of inherent value. Of greater relevance to the discussion is the question of explicating creativity, problematic though that may be.

Typically, the literature converges on the creativity questions in a nascent, intermittent and fragmentary way. Evidently, the question of defining creativity attracts less interest in the more popular realms of creativity literature. This enquiry finds the scholarly creativity literature, for example in the domains of science, philosophy and arts, more nuanced and explicit than the popular, business or personal development creativity literature.

5.8. Popular literature on creativity

Though the magnitude of popular commentary on creativity is immense it becomes evident in analysis of the literature that definition of creativity does not feature strongly in any of the genres that comprise this literature set. Popular commentary is distributed across continents through public and special interest media. A précis of this activity focusing in the main on printed English language literature must suffice here to illustrate general trends and ideas that have emerged in the popular creativity literature. For reasons noted earlier the innovation literature, which occupies the bulk of popular commentary, is of secondary interest though its evident colonisation of creativity in the literature of business and technology places difficulty on separating creativity from innovation in that part of the creativity literature. Rather than a thorough taxonomy of the popular creativity literature, this account samples the popular creativity field for items that explicitly address a range of creativity perspectives and that may have a bearing on the guiding questions set out above.

Headings in this section are not meant to signify linear development in the popular literature. Indeed boundaries across the popular literature are often indistinct. Though described as waves, and accorded particular themes, the various genres described can be identified within the popular discourse on creativity. In some cases these coalesce in an ad hoc way within the creativity conversation, at times almost incestuously so, as writers in the popular genres endorse each other's publications and appearances. In other cases they remain isolated from more general creativity discourses. Interested amateurs, journalists and experts contribute to the popular creativity literature, as well as individuals and groups from diverse fields. Thus it cannot be assumed that popular literature means only that produced by non-specialists. As detailed below, the popular field is also served by distinguished professional practitioners and researchers. These represent diverse disciplines relevant to creativity, such as the arts, philosophy, business, neurophysiology, clinical and research neuropsychology and psychiatry.

The energetic participation of distinguished philosophers, neuroscientists and other experts in the popular literature has brought to public attention complex philosophical and scientific

developments relevant to creativity. Arguably, the corollary is a growing public demand for new knowledge. The phenomenon of growing public interest in these areas is a fascinating site for investigation, though regrettably outside the scope of this study. At the outset of the literature enquiry it seemed that one paragraph would suffice to cover the popular creativity literature. Yet as noted, the popular literature is highly complex and nuanced. Thus effort is required to gain insight into its character. Attention is drawn to historic and current attitudes to creativity and perceptions relevant to the questions being considered in the popular literature.

5.8.1. The first wave: stepping outside the box with new thinking hats

The initial, and now enduring, trends in popular literature on creativity cluster broadly around a number of discernible areas. Examples of these include, but are not limited to:

- the spiritual, or esoteric (Wise 2002), (Fox 2002), (Von Oech 2002), (McNiff 2004) and (Cameron 2007)
- single, or multidisciplinary arts for example (Edwards 1986) in the former and (Maisel 2007) and (Gunning 2008) in the latter
- personal development, (McNiff 2004) and (Harrison 2004)
- business (De Bono 1973), (Carr 1994), (Kao 1997) and (Weintraub 1998).

Perspectives on, and approaches to, creativity in this literature characteristically eschew certitude, containment, and inflexibility in favour of spontaneity, flexibility and originality. This collection of attributes is typically expressed as "thinking outside the square/box" – a current, though somewhat exhausted, reiteration of the conception "stepping outside the frame" pioneered in the nineteen thirties by Viennese psychoanalyst Otto Rank, an erstwhile colleague of Freud, (Rank, Atkinson & Nin 1989, p. 70).

In the light of vigorous calls for flexibility, manifested in the popular creativity literature, it is predictable that broad categories, such as those identified above, frequently coalesce . Nor is it unusual to find all of those areas being marketed to popular audiences in a single work, (Fox 2002), (McNiff 2003) and (Gunning 2008). Though business appears to have a major profile in the popular creativity domain, personal development and business frequently coalesce (De Bono 1973), (De Bono 2008) and (Michalko 2001). Predictably, though beyond the remit of this study, all manner of amalgamations might transcend these general trends. For example, science is not excluded from the attention of popular commentary and is found in company with technology and the arts (Edwards 2008). While the relationship between creativity and science

is also found in the scholarly literature (Zichichi 1999), (Simonton 2004), the popular literature tends to portray a stereotype of both scientists and artists as solitary and otherworldly creatures.

Interest in applying creativity to business practice gathered momentum from the popular writings of the early advocates of lateral thinking. This area was conspicuously colonised by De Bono (De Bono 1973), (De Bono 2008), whose instructional materials on creativity have generated mass international popularity, particularly in the areas of business and personal development. Widely accepted outside of academe, and notwithstanding professional and academic qualifications, De Bono and others have elicited censure in some scholarly circles:

> Equally damaging to the scientific study of creativity, in our view, has been the takeover of the field, in the popular mind, by those who follow what might be referred to as a pragmatic approach. Those taking this approach have been concerned primarily with developing creativity, secondarily with understanding it, but almost not at all with testing the validity of their ideas about it.
>
> Perhaps the foremost proponent of this approach is Edward De Bono, whose work on lateral thinking and other aspects of creativity has had what appears to be considerable commercial success (Sternberg & Lubart 1999a, p. 5).

However Sternberg's concomitant affirmation of the importance of creativity in the economic sphere, (Sternberg & Lubart 1999a, p. 3) somewhat softens this evidently reasonable admonishment. His argument is not with De Bono's commercial success. Rather he charges the proponents of the pragmatic approach with having "little interest in testing the validity of their work" (Sternberg & Lubart 1999a, p. 5). This view would dismiss the pragmatic literature as a deficient source of definitions, or even descriptions of creativity. Nevertheless the pragmatic approach, offering applied instructional models for developing creativity, conceives creativity as a skill that can be developed to improve personal or business outcomes. This conception accords with earlier discussion on definitions of creativity, that creativity is a skill that may be enhanced through learning (Gaut 2009).

The work of pragmatists such as De Bono (De Bono 1973), (De Bono 2008), Buzan (Buzan 1991), (Buzan & Buzan 1996), Kao (Kao 1997), Michalko (Michalko 2001) and Van Gundy (Van Gundy & Naiman 2003) maintains broad and enduring currency in business and personal development domains, though their methods may remain to be attended by serious scientific or scholarly attention. Notwithstanding the lack of formal validation of these ideas, a plethora of consultancies, web sites, conferences and literature generated by these, and other prominent creativity practitioners, and commentators marketing similar products, attests to a perceived belief across many populations in the benefits of creativity, and broad acceptance of the offerings of these purveyors of creativity. Even if the success of these creativity promoters is measured only in commercial terms, this suggests a belief among the purchasers of their

products, and most likely the producers themselves, that creativity is a skill that can be learnt (Gaut 2009, p. 96).

Sternberg's linking of creativity with commerce is reflective also of other discourses. For example, popular business discourse promotes creativity as a significant enabler for economic productivity. This discourse is typically clothed in the parlance of innovation and problem solving. The creativity momentum continues to increase in an apparently exponential trend, ranging from North American business academic and self declared jazz musician, John Kao (Kao 1997), to the even more widely profiled British educationist and public media figure, Ken Robinson (Robinson 2001). Such activity now embraces specific advice for businesses from early creativity champions, such as Kao, and to educators, businesses and policy makers from individuals who maintain public media profiles, such as Robinson.

Investigation of the popular literature suggests that creativity is perceived in a very positive light. Nonetheless, as Sternberg remarks, there is little evidence of definition of creativity, or evaluation of the effectiveness of its systems and commentary (Sternberg & Lubart 1999a, p. 5). Tacit in the literature, however, is a sense that creativity is a skill and that a range of techniques can be employed to improve individual and group-based creativity. Also, overtly stated in Kao's account of creativity is the perception that creative skills may be transferable across domains.

Inclusive approaches to creativity feature conspicuously across the popular creativity literature where conceptualisations of collective creativity are embraced in a range of areas. In the business literature, contrary to individualistic paradigms traditionally represented both in Darwinian notions of capitalism (Spencer 1981) or the ideal of the heroic lone artistic genius, creativity is typically perceived to drive a collective channelling process for educing ideas and strategies to improve corporate planning processes and outcomes. The collective aspect of creativity has particular relevance to the creation and performance of popular music. In business this is exemplified in Kao's *Jamming: The Art and Discipline of Business Creativity*, where he advocates a business model based on jamming, a group activity, as practised by jazz musicians (Kao 1997). Other creativity proponents also model improvisational music and other techniques drawn from suites of arts forms as exemplars for creative business practice (Gunning 2008). Implicitly such strategies and exhortations suggest a belief that creativity is an acquirable skill and that it is transferable, in this case for example, from music to business.

Kao's approach may be compared with aspects of the pragmatic creativity group, though with an apparently lighter touch. Thus his communication with business is evidently based on direct consultation combined with appearances as a creativity expert. This style contrasts with the

systematic global approach evident in the output of earlier pragmatists such as De Bono. De Bono's widely marketed systems, for example, his lateral thinking (De Bono 1973) and thinking hats systems (De Bono 1999), are based on prescriptive do-it-yourself style models that continue to be licensed or franchised internationally.

5.8.2. The second wave: stepping outside academe to influence policy

Compared with De Bono, predominantly a business tycoon dominating the market in creativity products, Kao's more individual, consultative, and apparently less market-driven, approach distinguishes him as both a precursor and a contemporary of a group of popular creativity champions that has emerged from traditional professional and academic trajectories. Among these are educationalists Robinson (Robinson 2001) and Renshaw (Renshaw 1993) and psychologists Csikszentmihalyi (Csikszentmihalyi 1996) and Gardner (Gardner 1993).

As successful writers and media figures, this next wave of public advocates emerged as creativity champions who have been received as gurus in the popular creativity field. They promote creativity variously in the mainstream public press and on international speaking circuits, appearing in business, education and creativity conferences and arts festivals across the world. Forming a virtual global cult of creativity these influential and compelling speakers promote policy change in government, business, education and the arts to take greater account of creativity. Fuelling the zeal for creativity, such creativity champions have not only colonised business through the field of human resources, they have also penetrated education.

Through their command of mass communication across governments, diverse industries and wide segments of the general population, these academics form a relatively new populist phenomenon. Their books, social media activities and public lectures espouse the benefits of creativity not only for more effective educational outcomes but also to advance the economic good. Unlike the pragmatists, they are not producers of creativity manuals or training kits, or other merchandise. Rather, they are creativity activists, speakers, media commentators and authors of popular books on creativity. Their publications are variously in the form of personal epiphanies (Robinson 2001) or exemplary case studies involving the creative experiences of known and unknown creators (Csikszentmihalyi 1996) and they espouse creativity through business and academic networks. Typifying a new wave of creativity activity, these creativity advocates enjoy a wider, deeper and more overt public profile than their more cloistered academic colleagues.

The pervasive influence of social and political factors is demonstrated throughout the popular creativity literature. Yet nowhere is it more overtly present than among this particular group of creativity activists. The linkage strongly forged by these public celebrities between creativity and national interest is not exclusive to the popular literature. Such linkages are also apparent, albeit less overtly, in the scholarly literature reviewed later in this chapter. In this climate, policy forums at many governmental levels promote creativity, whether for pragmatic or other reasons. Instances of such espousals are evident, for instance, in "The European Year of Creativity and Innovation 2009", (European Union 2009) and the "Queensland Department of Education and Training Year of Creativity 2009" (Queensland Department of Education & Training 2009), just two of many examples.

5.8.3. The third wave: neuroscientists step out to explain the brain

A third trend, evident in particular over the last decade, has further opened creativity to popular discussion. This group admits new knowledge emerging from the complex and highly specialised field of neuroscience to growing public awareness. Perceiving an increasing public appetite for scientific knowledge, particularly in biology, a field that has evidently overtaken physics in popularity, a number of eminent psychology practitioners and brain scientists has assumed an entrepreneurial role to enter the field of popular science literature.

Typically, writers in this genre are from academic and research backgrounds and, like Csikszentmihalyi, a prominent pioneer of the genre, though leaning towards psychotherapy rather than neuroscience, some also have a strong background in clinical practice. Established scientists in the popular neuroscience genre do not form a homogenous group. Blackmore, (Blackmore 2003), for example, primarily an academic, strays beyond the anatomical to consider the slippery problem of consciousness. Boden, (Boden 2004) and Greenfield, (Greenfield 2000), are academically distinguished with profiles in popular publishing as well as scholarly discourse. Boden specialises in artificial intelligence and creativity, while Greenfield is concerned more with physiological brain science.

In addition to drawing on case studies from clinical experience, some of these writers and media figures, notably Sacks, (Sacks 2007) and Doidge (Doidge 2008), offer a manifestly anatomical approach to inform lay knowledge of the human brain. A cautionary note is sounded by Bennett and Hacker (Bennett & Hacker 2003), who, though drawing attention to the dangers of epistemic confusion in the popular accounts of neuroscientists, accede nonetheless that:

> Neuroscientists are understandably eager to communicate the knowledge they have attained over the past decades about the functioning of the brain and to share with the educated

> public some of the excitement they feel about their subject. That is evident from the flood of books written by numerous distinguished members of the profession (Bennett & Hacker 2003, p. 409).

Rapprochement between psychology and neuroscience, especially within cognitive science, which encompasses the human brain and artificial intelligence, is a common thread in this sphere of the creativity literature. As Bennett and Hacker indicate, however, rapprochement between neuroscience and philosophy (Bennett & Hacker 2003) is less settled.

Sacks (Sacks 2007), is a pre-eminent pioneer in this relatively new brain literature genre. A respected clinical neurology academic and clinician, he has written many popular books on diverse aspects of neuropathology, most famously *The Man Who Mistook His Wife for a Hat* (Sacks 1998). Typically, in his highly popular writing, Sacks selects case histories from his own practice as a clinician to demonstrate issues in developing brain research. His latest contribution, *Musicophilia: Tales of Music and the Brain* (Sacks 2007) focuses on musical ability and creativity from the perspective of neuropathology.

This latest work on the brain nevertheless sheds fresh light on the enduring nature versus nurture debate that has in the past occupied, and often stymied, consideration of musical ability and creativity. Sacks finds this binary framework too restrictive a construct in which to situate human creativity discourse. Referring to the work of researchers Schlaug and Pascual-Leone, in particular Schlaug's use of functional Magnetic Resonance Imaging (fMRI) to observe the brains of musicians, Sacks remarks on Schlaug's finding "that the corpus callosum, the great commissioner that connects the two hemispheres of the brain, is enlarged in professional musicians" (Sacks 2007, p. 94). This leads Sacks to observe:

> Anatomists today would be hard put to identify the brain of a visual artist, a writer, or a mathematician – but they could recognize the brain of a professional musician without a moment's hesitation (Sacks 2007, p. 94).

Presumably musicians do not enter the world so uniquely formed. Sacks calls attention to Schlaug's musings over how much this observable anatomical difference in musicians is "a reflection of innate predisposition and how much an effect of early musical training?" (Sacks 2007, p. 94). While noting the long-standing nature-nurture conundrum, this study does not aim to engage with that issue in great depth, at risk of diversion onto a path of interminable digression. In any case, as evident from Schlaug's findings, continuing developments in neuroscience have significantly sidelined the formerly vigorous debate over the relative contributions of nature and nurture to the manifestation of human creativity.

In addition to commenting on the work of Schlaug, Sacks also comments on the research findings on music learning of Pascual-Leone who, also using fMRI procedures, found that the

brain responds rapidly to musical training "not only with physical practice, but with mental practice alone" (Sacks 2007, p. 95). In that research two groups of non-musicians were observed while learning simple keyboard exercises. One group trained by rehearsing the notation patterns physically at the keyboard while the other rehearsed the notation patterns without physically playing them. Pascual-Leone found that both groups mastered the exercises equally; that is with each group being given equal time for training, whether by physical or purely mental rehearsal, the performance result was the same. Though instrumental or vocal performance of music is generally perceived as a mainly physical activity, Pascual-Leone's finding suggests that the cognitive dimension is equivalent in memorising music performance.

Though that research is primarily a physiological investigation, the finding, that the brain and fingers respond to imagining performance alone in the same way that they respond to physical practice, has some interesting implications. Inevitably the precedence of cognitive engagement with music is evoked, though that is really merely a suggestion from this finding. Pascual-Leone's finding may have some bearing on fundamental debates regarding the consciousness discussion. It appears also to suggest the relevance of thick description to strengthen the research, though qualitative methods may sit uncomfortably with the entrenched empiricism of brain research and fMRI techniques.

The validity of fMRI research is powerfully contested on a number of grounds, not the least of which being that it is perceived to be an empirical and mechanistic expedient unsuited to the consideration of psychological factors. Boden, for example, deems fMRI based research to be "more natural history than science" since it is only correlational: "In short most brain imaging is an a-theoretical fishing expedition:" (Boden 2006b, p. 1228). As cogently argued in many places, fMRI does not have the power to translate human consciousness. Robinson remarks on Bennett's wonder: "How indeed, to derive the psychological from the synaptic!" (Robinson 2007, p. 174); not that Schlaug or Pascual-Leone seek to impose findings beyond the empirical remit of their investigations; rather, in the examples mentioned, they observed the cognitive implications of music training for the anatomy of the human brain and suggested the precedence of the cognitive over the affective in relating a musical pattern on the keyboard. This finding may not lead us to understand the essence of creativity. It may, however, give insight into the learning that provides the cognitive fluency necessary for musical creativity.

Doidge also cites Pascual-Leone's work. In his popular account of brain plasticity, a subject in which he has scholarly expertise, Doidge argues that increasingly powerful and compelling brain research on neuronal plasticity has to a large degree prevailed over ideas of cognitive

immutability such as fixed intelligence. It has also prevailed over the modular construct of assigning explicit cognitive functions to specific parts of the brain as in the left brain, right brain discourse (Doidge 2008). Distilling the issue of genetic predisposition in anatomical terms for the non-expert, Doidge describes two fundamental functions of the gene technically named the "template" function and the "transcription" function. The template function is a long understood principle that involves the ability of the genes to replicate themselves through the generations. This is a genetic function beyond the control of individuals. Though each cell contains all of the individual's genes, not all of those genes are turned on, or expressed. The second, or transcription function, knowledge of which has been greatly enriched through fMRI methods, is triggered when we learn, as this turns on, or expresses, the genes in our neurons (Doidge 2008, p. 221). More specifically:

> When a gene is turned on, it makes a new protein that alters the structure and function of the cell. This is called the transcription function because when the gene is turned on, information about how to make these proteins is transcribed or read from the individual gene. This transcription function is influenced by what we do and think (Doidge 2008, p. 221).

Such new knowledge significantly refines the nature versus nurture debate. Though the effect of musical training on the anatomy of the brain is very likely to have correlates for creativity, more significant to the present study is the relevance of musical training and practice for the manifestation of creativity.

5.9. The scholarly literature

At first glance it is evident that the scholarly literature on creativity emerged initially in psychology and later with a more quantitative disposition in studies of intelligence. Focusing in the main on the scholarly literature, in particular a study of articles indexed in Psychological Abstracts for the period 1975 to 1994, Sternberg and Lubart identified a gap in the creativity literature (Sternberg & Lubart 1999a, p. 3) and drew attention to earlier accounts associating creativity with the mystical, redolent of the Platonic notion of the muse. Citing Rothenberg and Hausman (Rothenberg & Hausman 1976), they note the legacy of familiar theistic conceptions of human creativity derived from Plato's view "that a poet is able to create only that which the Muse dictates" (Sternberg & Lubart 1999a, p. 5), the muse in this sense being associated with the divine.

Sternberg and Lubart assert that the mystical view of creativity held sway with a pervasiveness that served to inhibit scientific studies, by which it may be assumed they mean more qualitative, or at least empirical methods, through to the nineteenth and early twentieth centuries (Sternberg

& Lubart 1999a, pp. 4-5). Williamon, Thompson, Lisboa and Wiffen explain this, and related concerns with creativity research thus:

> Scholars have had a difficult time attempting to characterise creativity. This is partly because it has been virtually impossible to offer an unambiguous and broadly agreed-upon definition, and partly because the phenomenon itself has proven extremely hard to isolate empirically. Moreover, creativity, especially in the arts, has a deeply entrenched mythology, whereby it is construed as a mysterious, unknowable process. Such a perspective has done little to benefit the position of creativity as a research topic, many investigators simply opting to ignore it and focus on more immediately tractable problems (Williamon et al. 2006, pp. 164-5).

However, noting a growing interest and diversity in the study of creativity, presumably after 1994, Sternberg and Lubart (Sternberg & Lubart 1999a, pp. 4-5) draw attention to a number of trends emerging in the scholarly study of creativity, for example:

- *pragmatic approaches* – as noted above in relation to the specification of practical strategies by popular writers such as De Bono, though De Bono had established himself in the popular literature well before that time (De Bono 1973)
- *psychodynamic approaches* – predominantly qualitative approaches that isolated creativity from other research, though these were marginalised by more dominant themes and emerging schools of psychology due to difficulties with proof and replicability
- *psychometric approaches* – which, like psychodynamic approaches, were impeded by the difficulty of definition and of criteria to quantitatively measure creativity (Sternberg & Lubart 1999a, p. 12).

5.9.1. Intelligence and creativity: highlighting assessment

Sternberg and Lubart point to the work of Guilford and Torrance in pioneering the development of psychometric methods for assessing the creativity of individuals (Sternberg & Lubart 1999a, p. 7). In his *Unusual Uses Test* of 1950 Guilford prescribed a number of techniques demonstrative of creative thinking, for example, requiring subjects to think of as many uses as possible for a common object. Having worked with Guilford, and building on Guilford's work, Torrance formulated the *Torrance Tests of Creative Thinking* in 1974. Sternberg and Lubart reason that because creativity research aims above all to understand and model exemplary human creativity, these early assessment methods may have been largely superfluous to the cause. This was due to their lack of concern with explaining or assessing the creative abilities of exceptionally creative subjects. Though they may have failed to immediately ignite interest

(Sternberg & Lubart 1999a, p. 7), Pope makes a case to support the more enduring effect of Guilford's legacy:

> The keynote … was sounded by J. P. Guilford, a founder of modern creativity research, when in the late 1950s he opened one of the first conferences in the United States expressly devoted to the topic of "Creativity" (Pope 2005).

Guilford stands as an influential pioneer in the field of creativity research for his early and vigorous pursuit of creativity research at a time when creativity had no distinct place in scholarly domains. Further, his fresh and innovative focus on creativity, using both psychodynamic and psychometric approaches, clearly marks a new apprehension of creativity. On the psychodynamic side, though he may not have been the first to speculate on the prospect of different thinking styles, his influential classification of divergent and convergent production, as distinct modes of thinking, contributed to the establishment of a language of cognitive styles. Additionally, on the psychometric side, his creativity tests released creativity from general intelligence testing while also marking the establishment of a psychometric approach to creativity. Guilford established an enabling framework for creativity to be observed as a discrete study decoupled from intelligence. He did this by distinguishing different styles of cognition and assigning to them the terms convergent production, to signify deductive thinking, and divergent production, to signify more open ended and creative thinking (Sawyer 2006, p. 300).

A more scholarly, scientific position for creativity was not the only distinctive aspect of Guilford's work. Also remarked, and both a cause and corollary of Guilford's scientific disposition, is the intrinsically socio-political influence underpinning and inevitably supporting his work. Noting that while heroic views of creativity may be entertained in the philosophical realm, where pragmatic orientation matters less, Briskman observes that the psychologist has no such luxury: "for psychological interest in creativity has, since the early 1950s, been unabashedly pragmatic in orientation" (Briskman 2009, p. 22). He locates the particular brand of pragmatism motivating Guilford's creativity scholarship in the context of the time; that is, the cold war era where in the United States creativity was viewed as a means of fostering the creative abilities of scientists and engineers to meet the Russian threat then perceived by the United States. Emphasising the political imperative of the time, for creativity to be controlled and manipulated for nationally competitive purposes, Briskman turns to the words of Razic:

> '…creativity' could no longer be left to the chance occurrences of the genius; neither could it be left in the realm of the wholly mysterious and the untouchable. Men *had* to be able to do something about it; creativity *had* to be a property in many men; it *had* to be something identifiable; it *had* to be subject to the effects of efforts to gain more of it (Briskman 2009, p. 23).

Multiple intelligence and creativity

Notwithstanding the socio-political impetus of Guilford's work, which has powerful resonance in the present, and contrary to Sternberg's claim that the work of Guilford and Torrance had garnered little interest, Howard Gardner's later multiple intelligence model (Gardner 1983), innovative though it was, evidently evoked Guilford's classification of convergent and divergent production. Equally, the *Torrance Tests of Creative Thinking* was built upon Guilford's *Unusual Uses Test* for evaluating creativity in individuals. Thus scholarly studies of intelligence gave way to creativity research that was later to develop along multiple pathways.

Studies of intelligence were also to take on new directions, most notably in the work of Gardner, who proposed seven types of intelligence (Gardner 1983) though this is not to suggest that consideration of diverse modes of thinking began with Guilford and Torrance. While Gardner's work evoked the convergent and divergent thinking styles of Guilford it should be noted that others had applied themselves to the idea of different thinking, or personality styles, at least as early as the 18th century as detailed by Schuyler (Schuyler 2009). Schuyler (Schuyler 2009) and Morgan (Morgan 1996) also detail theorists who were considering different thinking styles in the three decades between Guilford and Gardner.

In this respect semantics may be relevant in that other typologies comparable to Gardener's emerged in the field of human resources and career development. These, however, unlike Gardener's, were not packaged as intelligences but rather as personality types. Prominent among these personality frameworks is the Holland set of six personalities; realistic, investigative, artistic, social, enterprising and conventional (Holland 1985), a typology that is widely used in the field of career development. Much more prominent and widely used in human resources practice is the framework known as the Myers-Briggs Type Indicators (Briggs Myers & McCaulley 1985). However, these and other personality theories were not taken up in education spheres with the same enthusiasm that continues to attend Gardener. It remains a matter of conjecture whether the use of the term intelligences was a significant success factor in the reception of Gardner's work in the school education sphere.

Gardner's theory of intelligence, later to become known as Multiple Intelligence (MI) theory, emerged to inform a radically new approach in the way intelligence and creativity came to be perceived and discussed. Of particular interest to the present study in Gardner's distinctively elaborated typology of intelligence is the classification of music as a discrete intelligence, though this specific choice is one of understandable contest. The remaining six, no less controversial, strands of Gardner's intelligences package are linguistic, logical-mathematical,

bodily-kinaesthetic, spatial, interpersonal and intrapersonal intelligence (Gardner 1983). Later he proposed two further types of intelligence; naturalist and existential (Gardner 2003). MI theory, or the seven intelligences, as the framework became widely known, attracted strong opinion, both positive and negative. For many education practitioners, particularly those working in music and other areas of the arts and humanities, the concept of MI was welcomed as an escape from the tyranny of general intelligence testing over school education.

Though not essentially one-dimensional in design, general intelligence testing leans heavily in the direction of academic areas of literacy and deduction, while apparently inherently neglecting the more improvisatory dimensions of the mind. This is due no doubt to the difficulty of applying psychometric or other quantitative methods to the assessment of those more inventive and unpredictable creative activities. In that respect, arguably, general intelligence testing lacks the capacity to measure the more speculative qualities of cognition, a deficit that is likely to be associated with its inability to credibly account for cultural and individual difference. The practice for general intelligence test results to be aggregated into a single number, the intelligence quotient (IQ), serves to emphasise this deficiency since all aspects of the test are encompassed in a single IQ number rather than in a suite of differentiated results to indicate performance relative to each of the test components. More problematic still was the seemingly irrefutable charge of embedded bias in general IQ testing. The evident difficulty of credibly accommodating cultural and demographic difference in the traditional IQ testing framework, including the language in which the test was conducted, was subject to longstanding debate. The significance of these claims was sharpened in consequence of using IQ testing as a predictive, and even ranking, tool.

Notwithstanding the evident shortcomings of general intelligence testing and the enthusiasm from education practitioners for Gardner's MI model, however, critiques of the seven intelligences framework are not entirely positive. From a psychometric perspective, assessment of each of seven discrete intelligences, and their underpinning subcategories, is most likely to be difficult, as well as being expensive to design with any rigour (Klein 1998). Further, the MI framework is perceived as being cognitive styles rather than intelligences (Morgan 1996). From that standpoint, the model can be seen as simply a more fulsome iteration of the Guilford model of thinking styles. Arguably, however, as remarked earlier in relation to Guilford's influence on the study of creativity, MI theory appears at least more promising for creativity scholarship and measurement than the general intelligence test. Nonetheless, the choice of the seven intelligences appears arbitrary and the level of segmentation risks claims of both atomisation

and ambiguity. To that extent Klein professes doubt about how the seven intelligences actually function independently and, or, interactively (Klein 1998). Equating multiple intelligence theory with general intelligence theory, Klein reasons that instead of overcoming the problems of general intelligence testing MI actually replicates problems long apparent in general intelligence theory that Gardner claimed to have ameliorated:

> …Gardner is on the horns of a dilemma. A "weak" version of multiple intelligence theory would be uninteresting, whereas a "strong" version is not adequately supported by the evidence Gardner presents. Pedagogically, multiple intelligence theory has inspired diverse practices… However, the theory shares the limitations of general intelligence theory: it is too broad to be useful for planning curriculum, and as a theory of ability, it presents a static view of student competence (Klein 1997, p. 377).

It is questionable whether any form of testing can be other than static, unless administered on multiple occasions over a period of time. However this must surely depend on the purpose of the testing. Testing for creativity and associated diverse practices may not be viewed as problematic unless the testing is designed to support a classification procedure, as is often the rationale in IQ testing; or to rank performance, which may also have merit, though presumably ranking is not the only potential rationale for testing. In defence Gardner reasonably declares: "The theory of multiple intelligences has helped break the psychometricians' century long stranglehold on the subject of intelligence" (Gardner 1999b, p. 203).

Considering Gardner's close interest in creativity (Gardner 1993), it seems realistic to suggest that MI, though evidently a speculative theory, has the capacity to move consideration of creativity beyond the limitations of IQ testing. Certainly MI theory has now settled into a broader discourse in the cognitive sciences. Moreover, Gardner continues to be an influential, if controversial, figure in the field. Nevertheless, Schuyler indicates that Gardner and his seven intelligences have been widely known and accepted across the schools' sector for at least the last decade:

> With regard to the arguments supporting cognitive learning styles as opposed to Multiple Intelligence, the debate will inevitably continue. Many researchers, educators, and practitioners have much invested in support of the MI theory. Despite the semantical difference in terms intelligence or learning styles, the overarching benefit of Gardner's work was to silence the proponents of the single factor constructs of intelligence (Schuyler 2009).

Schuyler also draws attention to a *New York Times* review of *Frames of Mind,* (Gardner 1983), the volume in which Gardner presented his exposition of MI theory. The review concurs with Schuyler in concluding:

> The value of Frames of Mind lies less in the answers it proposes than in the problems it poses. They are important problems, and time spent thinking about them will be time well spent, whether or not your conclusions agree with Mr. Gardner's (Miller 1983).

Sternberg and O'Hara find the correspondence between intelligence and creativity an area that has failed to receive due attention, and further, and that consensus on the issue of assessing creativity remains elusive, notwithstanding a large body of research, (Sternberg & O'Hara 1999b). This bears upon one of the guiding creativity questions, that is: how can we know that creativity has been learned? The answer here appears to be equivocal, though the context in which it is presently being asked is that of measuring the development of creativity in a general sense. In the context of commercial music, however, the answer may be arrived at through the critiques of peers or the popular press, or in financial returns. This then speaks to the issue of whether in fact creativity can be extracted as a success factor for specific music products being assessed.

In the light of discussion so far, it may be concluded that creativity is a relative term. That is, it is likely to have a range of values across particular areas of popular music. Here Adorno presents the bleakest of views: "The Ford model and the model hit song are all of a piece" (Adorno 1991, p. 79). Thus the world of commercial production has no place for creativity, or individuality, be it cars or songs. This rich metaphor uses association to fuse two distinct stages of the marketing project. Its success, however, depends on wittingly concealing the distinction between design and production phases. Functionally however, the distinct phases of origination and production, though related, are not equivalent. Assembly line production for cars and compact discs may be comparable. The original conceptualisation of cars and songs is less so.

5.9.2. Definitions and accounts of selected creativity theorists

Creativity theorists frequently perceive and construe human creativity as a paradox (Boden 2004, p. 1), (Csikszentmihalyi 1996, p. 10), (Deleuze & Guattari 1994, p. 199), (Jarvie 2009, p. 43), or at least encompassing significant elements of paradox (Hausman 2009, p. 15), (Briskman 2009, p. 31), and Ulam 1976 in (Dennett 1995, p. 223). Creativity is also associated with danger and chaos (Deleuze & Guattari 1994, p. 202), (Harré 2009, p. 277). Thus it is not surprising to find that definitions of creativity are diverse, sometimes equivocal, usually qualified and, consequently, conveyed in a variety of ways across the scholarly literature.

Accounts of creativity from diverse perspectives denote various types of creativity and inevitably draw on idiosyncratic frameworks for construing creativity. Conceptualisations, definitions and descriptions of creativity encompass, for example:

- unfamiliar combinations of familiar ideas, exploration of ideas and, transformation of conceptual spaces (Boden 2004, p. 3)

- creativity that is in some way unique and historically valuable, or "H-creative" (Boden 2009, p. 237); similarly, large C for socially significant creativity (Sawyer 2006, p. 27)
- creativity that is new, though only to the individual, or "P-creative" (Boden 2009, p. 237). However if an idea is H-creative, by definition it must be P-creative as well (Boden 2009, p. 237); "small c" creativity for personally significant creativity (Sawyer 2006, p. 27); everyday creativity (Chomsky 1965)
- discrete creativity types for scientific structures and social sciences (Harré 2009, p. 281)
- discrete creativity forms for philosophy, art and science (Deleuze & Guattari 1994, p. 199)
- distinctive creativity forms for artistic originality, scientific discovery, and comic inspiration (Koestler 2009).

Creativity as product theory

Demonstrating elements of his generic account with examples from science, music and film making, Jarvie defines creativity, somewhat broadly and circuitously, as "a property ascribed to certain artistic and intellectual achievements by certain creators who are said to possess the capacity to 'create', as evidenced by the creativity of their work" (Jarvie 2009, p. 46). Thus, by their works we will know them. The frailty of this account is better understood in the light of Jarvie's general opposition to creativity research and his diffidence concerning the term itself. Obviating thick description Jarvie observes:

> Presumably, creativity is interesting because there is something going on in creative people that results in objective results: creations. What are the objective achievements? Here the whole subject seems to become anecdotal; sayings and stories about the great geniuses are trundled out. Two things strike one: first, the *virtus dormitiva* effect; second, that the achievements called creative can be characterized without the concept of creativity and without remainder. Originality, novelty, synthesis, insight, and so on suffice. The status of creativity as a property in its own right is highly questionable (Jarvie 2009, p. 43).

Jarvie situates the paradox of creativity in the actual attempt to explain it. Calling on Einstein's claim that creativity is interesting precisely because it is mysterious (Einstein 1950, p. 220), Jarvie puts his own objection to the notion of creativity thus:

> The problem here is that this argument shows that creativity is such that were it to be explained it would be explained away. Usually an explanation of something does not explain it away. When it does, something is wrong (Jarvie 2009, p. 57).

He articulates what he identifies in a general sense as a fundamentally epistemic problem: "creativity is interesting precisely because and to the extent that it is uniquely mysterious. Were it not such, it would not be creativity" (Jarvie 2009, p. 57). Perhaps in this statement Jarvie puts

himself at risk of *virtus dormitiva*. Further, he merges creativity somewhat incongruously with scientific processes and artistic consequences: "Creative achievements are unique events; explanatory progress is made only with repeatable events. Hence there is something inexplicable about creativity" (Jarvie 2009, p. 46). Then in mitigation, having earlier railed at such explanations he invokes "the ghost in the machine" (Ryle 1949) in seeking to "distinguish between creativity as an objective matter; a property, so to speak, of created works; and creativity as a property of persons or their minds" (Jarvie 2009, p. 51). His argument against the notion of creativity is premised on relegating the place of the mind in creativity so that "the mind becomes the product rather than the producer of rational organisation, of goal-directed, trial and error action" (Jarvie 2009).

In foregrounding the rational, or active elements of creativity Jarvie takes issue with Keostler and Freud for their inclusion of humour in accounting for creativity (Jarvie 2009, p. 55). Jarvie eschews consideration of creativity in a psychological, or mind context, a position that collides with his rational account of creativity, an account that he further deploys in challenging psychopathological explanations of creativity, particularly where they equate creativity with neurosis (Jarvie 2009, p. 47). Thus, again we are alerted to an inevitable potential for epistemic issues that are likely to be embedded in general creativity theorising. We are also reminded of the resilience of the Platonic view in which the muses are placed beyond scrutiny, a position holding great attraction for behaviourist and autonomist accounts of creativity.

Nonetheless, Jarvie's contention regarding the inexplicability of creativity is difficult to refute, a difficulty that resides in his presentation of the mysterious dimension of creativity as a closed proposition. Thus stated – creativity is inexplicable or not. Such binary propositions are of little help in applying creativity theory to commercial popular music. Hence, creativity requires emancipation from this closed position, potentially through a restatement, or at least expansion that can embrace creativity, for example, in popular commercial music. Thus Jarvie's straightforward proposal that creativity involves working through ideas, some of which are discarded and others retained, might yield a definition of creativity that embraces applying knowledge and skill in the domain using inventive experimentation guided by self-criticism. Such a definition can continue the Boden framework.

It is commonplace for musicians to integrate the rational, the intuitive and the visceral. It is doubtful that on the whole musicians would understand their work primarily as problem solving, or even primarily rational. Still, individual musicians, or groups, may be working creatively at various points on a continuum between the rational and visceral. That is not to cast

the visceral into the abyss of the mysterious however, or to relegate it to some indeterminate fall back position of ghost in the machine, god of the gaps, or skyhooks (Dennett 2007). To this extent issue is taken not only with Jarvie's creativity as product account, but also with his mandating replication as the measure of creative success, thereby inappropriately rendering artistic creativity captive to the hegemony of scientific creativity.

Critiquing creativity as product theory

Privileging creative product as the sole site in accounting for creativity evokes the autonomist aesthetic. Presumably in this limited framework it would be possible to investigate musical works to identify the quantum of rationality in creativity, or to determine creativity only in terms of the rational dimension. If that were possible it is likely that such an approach would prefer creativity that reflects the rational. In the context of musical creativity it might be feasible, for example, to confine investigation of creativity to apparently "objective" composers such as Schoenberg, yet, only to that section of his oeuvre yielding a rational manifestation of creativity. Thus works manifesting clarity of structure would be favoured, such as those overtly constructed on an intentionally devised scale system radically different from the customary Western scale. This objective approach would draw attention to Schoenberg's unique scale system, which he designed to avoid the structured inequality central to European harmony.

Evidently, Schoenberg's ground-breaking development, known as the twelve tone system, or serialism, is a highly calculated form of creativity involving a distinctly rational process. It is also known as serialism because each of the twelve tones is heard in a sequence pre-determined by the composer. Thus it challenged the existing tonal system, that is a binary tonal system predicated on opposition between harmonic consonance and dissonance. Nonetheless, the twelve tone system retains the same twelve tones comprising the notes of the chromatic scale, that is the seven white notes and five black notes of the octave arrangement seen on Western keyboard instruments. Serialism, however, eliminates the long-established relationships between the notes of the traditional scale that shape the chords, thus subverting the hierarchical exigencies inherent in the traditional chordal system, the system that has formed the basis of Western European music since the seventeenth century. Thus, in his own musical world, Schoenberg relegated the hegemony of chordal tonal harmony as the dominating structural element and aural focus by the application of a mathematical formula. In so doing, he allowed greater attention to fall on formerly less prominent musical elements, for example timbre and texture. From an aesthetic perspective it can be argued that this event opened up greater syncretism for European music to merge with the music of other cultures.

On the basis of those twelve tone works Schoenberg's creativity then might be assigned to the more rational, or problem solving boundary, of creative activity. Certainly it would have to count as H creativity. Though the twelve tone scale did not vanquish the tonal system of traditional Western composition, its influence, in transforming the way music came to be perceived, remains inestimable. This abrupt, though largely temporary relegation of traditional European harmony caused other musical dimensions to be repositioned, thus allowing new ways of perceiving music. Ultimately, this repositioning bore the seeds of a more empathic cross-cultural perspective in the reception and fusion of other world music into Western culture.

Jarvie's rational approach to creativity well fits those twelve tone works of Schoenberg. However, a more complete account would be needed to account for creativity in other works of Schoenberg. Having initiated the twelve tone system Schoenberg was not confined to that system, nor indeed were later composers who availed, and continue to avail, themselves of twelve tone procedures or variants thereof. Undoubtedly many factors, though well beyond the scope of the present discussion, were present in Schoenberg's development of the twelve tone system. This unavoidably simplistic focus on one aspect of his rich and complex creative achievement serves merely to consider what might be construed as a rational expression of creativity. Most salient in this glimpse of Schoenberg's work is not that serialism became the new standard of European composition, though it continues to be used in the compositional domain. Rather it opened up new insights. It is also illustrative of changes that occur in a domain that will have implications for future creative practitioners in the domain, even beyond the immediate circumstances of their invention and exploitation.

More difficult to account for in Jarvie's monocracy of the rational would be those apparently more captivating, though still highly disciplined and rarefied, manifestations of creativity found in the work of Schoenberg. This would include his *Piano Concerto,* or other works written after his migration to America that evoke the Baroque. How also to account for the works of composers of a more palpably visceral bent, such as Wagner? Wagner did not break with the traditional harmonic system to the extent, or at least in the way that Schoenberg was later to do. Rather he played with the tonal and melodic traditions of Western music in a radically different way, to the consternation of many music critics of his time, Hanslick in particular (Hanslick 1854). Wagner's line of attack on traditional practice was evolutionary rather than revolutionary. He extended the periods of unresolved dissonance, within the existing harmonic system, while simultaneously withholding customary melodic adornment almost beyond the boundaries of expectation of his contemporary audiences.

Wagner's opera *Tristan and Isolde*, and the four operas of the *Ring Cycle,* demonstrate a kind of creative paradigm bending rather than paradigm breaking. His compositional strategy unleashed a more expansive musical scaffold with which to explore great myths, while also exploring musical ideas at such great length as to almost exhaust his audiences. What holds his audiences, however, is the sensual nature of this drawing out. With now famously erotic chords, such as that assigned to the lovers Tristan and Isolde, Wagner was able to withhold resolution of the harmony from dissonance to consonance while simultaneously withholding melody to the point of deprivation. Reflecting the intense sexual tension of the lovers in the great and impossible archetypal love stories of his famously extended operatic works, this kind of prolonged musical foreplay has the effect of intensifying the impact of harmonic consonance and melody at their inevitable advent. Unlike Schoenberg, a composer of a later generation, Wagner's creative style was steeped in the archetypal myths so favoured in a strand of the psychoanalytic movement later to find its apogee in the work of Jung.

Jarvie argues that the consideration of the objective can be strengthened with what he conceives as a new way of approaching creativity. Pointing to the creative work of Einstein (Jarvie 2009, p. 53), Russell and Mozart, Jarvie claims evidence that these eminent individuals extensively reworked their ideas (Jarvie 2009, p. 58). On this basis he asserts that given their respective expertise in the domains of science, philosophy and music, their creative process can be defined in terms of trial and error:

> I have picked on examples like Russell and Mozart because on the surface they look so fluent and 'inspired,' the opposite of the hesitant, diffident, groping, trial-and-error creator I have in mind. In close-up, however, this impression disappears. Russell and Mozart have to be rational about their own creativity too (Jarvie 2009, p. 59).

Clearly the work of an artist, scientist or philosopher, or indeed a cook or hairdresser, is a signifier of that artist, scientist, philosopher, or other creative agent. Nonetheless, as a single site of artistic analysis a particular work is a blunt indicator of a complex suite of factors. A significant problem in making product the focus for considering creativity, as in Jarvie's account, is the removal of place and time as well as the relative demotion of author from consideration. How, firstly by significantly precluding all else but the product and, secondly allowing the creator a declared, though unexamined, process of trial and error, can a fulsome account of creativity be derived? Little help is found here in apprehending the "why" and "how" of artistic creativity as a basis for understanding creative capabilities. Nor, beyond a hit and miss process, akin to pouring wine over bottles in the hope that some will hit the target, is there any opening for understanding how creativity comes to bear on creative work.

Even more problematic in placing the emphasis almost entirely on the product in accounting for creativity is the question of authorship. Sawyer, for example, claims that computer generated art has been shown to engage audiences equally to the works of human artists (Sawyer 2006, p. 109), an issue considered in closer detail below in the discussion of cognitive science and creativity. Concerning this point, he recounts an event held in 1997 at the University of Oregon in which Winifred Kerner, a professional concert pianist, performed a genuine work of Bach and two others in the style of Bach. Of the latter two, one was composed by Steve Larson, a music academic, and the other by a computer program known as Experiments in Musical Intelligence (EMI or "Emmy") created by David Cope, a professional musician and artificial intelligence practitioner (Cope 2005). Voting on which was the original, the audience deemed the performance of the piece composed by Emmy to be the original Bach (Sawyer 2006, p. 97). Thus an imitation meets all the requirements of Bach-ness for that audience.

Nonetheless Emmy's version of Bach, or other modelled styles is an imitation. Emmy does not embody the unique qualities of Bach's creative process, derived from a synthesis of knowledge and understanding of his musical domain that is predicated on learning influenced by a dynamic fusion of embodied factors: family, employment, status, place, time, culture, personality and other ontological forces. Thus, in looking only at the artistic outcome, or product, ontological issues become irrelevant, rendering superfluous speculation about how creativity is developed.

Merging teleological and evolutionary accounts of creativity

Certainly artists have to be rational about their creativity. Jarvie's flight from engagement with what might be termed the inspirational, visceral or intuitive dimensions of creativity and the place of culture and ontology, and his consequent emphasis on the active, objective, even hard grind components of creativity, has merit. This is supported by Briskman's differently nuanced perspective (Briskman 2009). Like Jarvie, and Deliège and Richelle (Deliège & Richelle 2006, p. 2), Briskman identifies the path to understanding the creative process as beginning with judgement of the creative product, in his terms the "transcendent product" (Briskman 2009, p. 35). Presenting a relatively generic account of creativity, however, Briskman goes beyond Jarvie's approach to embrace an evolutionary perspective, though admittedly Jarvie's focus gives space for a more dynamic view of the creative product as being open to change and even retraction where circumstances may call for change (Jarvie 2009, p. 58). That position is useful in its scope for admitting changing taste and fashion in the reception of art to the consideration of creativity, an aspect of creative production canvassed in this and other chapters.

Also useful to the present project in Jarvie's account is his teleological conception of creativity: "The rationality of creativity then consists of it being successful action directed at solving an artistic or cognate problem" (Jarvie 2009, p. 55); and further: "Being rational and self-critical is very hard and sometimes impossible. It is nevertheless the key to anything deserving the label creativity" (Jarvie 2009, p. 61). Though certainly only part of the creativity enquiry, the teleological approach seems especially relevant to the commercial music context. This aspect of Jarvie's definition throws up a richer vein for considering artistic creativity. Ergo, in conceiving creativity as an active process geared to a generic end product, say, a song, the perspective of mere problem solving can be mitigated. That is not to dismiss problem solving as a likely, even underpinning element, indeed a necessary though not sufficient element for musical creativity.

Notwithstanding current marketing parlance, a song may be considered in this account as something more than a solution. Further, a teleological account of creativity has the flexibility to incorporate hard work united with disciplined evaluation. This counters the view of creativity as a kind of propitious, though passive, inspiration out of which the product falls from nothing, through the inexplicable medium of the artist, into fully finessed being, an account that casts the artist, or creative agent into the role of inscrutable black box.

Advocating a modified teleological view of creativity Briskman identifies with evolutionary theory derived from "…the Darwinian idea for blind variation and selective retention …which allows for the production of novelty but which is *not random"* (Briskman 2009, p. 38). The evolutionary view is compatible with other definitions that construe creativity as a combination of enculturation, knowledge and skill in a domain, with an intention, or action to make something new. This might be considered a necessary but not sufficient underpinning for valued, or successful creative action.

This definition fits with cultural perspectives considered earlier in the chapter and with the work of Simonton, who though offering a powerful Darwinian account of creativity, notes that due to the contentious nature of the terms Darwinian, and evolutionary theory, that;

> …we might better refer to it as a *combinatorial* or *constrained stochastic* process. After all, would it be less valid if called by some other name?
>
> My belief is that the benefits outweigh the costs. The study of creativity must be brought into the scientific mainstream. Rather than representing some mysterious process, creativity should be examined from a naturalistic perspective that links it with other phenomena of the same kind. Of all natural phenomena, the evolution of life comes closest to the creation of ideas (Simonton 2009, p. 81).

Creativity, in the domain of music at least, evidently calls for both combination and synthesis of musical resources with speculative, or experimental action. This action, however, is undertaken

within the defined rules and practices of the domain and, indeed, in a range of various sub-domains of music. The creative action, in the context of commercial popular music at least, is likely to carry with it an intention of bringing into being an as yet unrealised musical product that will have commercial value. From this perspective, it seems not too implausible to consider creativity as a phenomenon necessarily involving both a *combinatorial* and a *constrained stochastic* component. Strongly implying the potential blend of both random and non-random characteristics, this definition provides some reprieve both from Jarvie's impasse and from the mystical view of creativity that Jarvie and Briskman press us to avoid.

Simonton's adoption of the *Blind-Variation* and *Selective-Retention Model*, a notion he credits to Campbell (Campbell 1965), is compatible with Briskman's definition. It is also compatible with aspects of Jarvie's construction, though in contrast, it embraces personality (Simonton 2009, p. 67). The first part of the model suggests the search for viable ideas and the second refers to the selection and incorporation of the most viable ideas into the work (Simonton 2009, pp. 65-6). Thus, as Simonton remarks, the twofold Darwinian model of creativity describes a trial and error process (Simonton 2009, p. 68), as Jarvie contends. However Simonton elaborates on the process describing the first phase as one in which "the variations", or possibilities, "emerge through some variety of combinatorial process, a process that involves some degree of chance or unpredictability" (Simonton 2009, p. 66). The ascription "blind", however, and the vagueness of "some variety of combinatorial process", suggest limitations for an evolutionary conception of creativity.

Simonton maintains that the Darwinian model of creativity could be generalised to encompass creativity in the arts as well as the sciences. Further, he contends that the evolutionary account of creativity has the capacity to accommodate his proposed three core aspects of creativity: "the creative process, the creative personality, and creative development" (Simonton 2009, p. 67). The creative product, earlier remarked as central to the creativity accounts of Briskman and Jarvie, does not appear in Simonton's three core considerations, namely, the process, the personality and creative development. With the exception of Molino, who takes a semiological stance, and Johnson-Laird who refers to the success of a work being dependent on the opinions of others (Johnson-Laird 1988), Simonton, and indeed other theorists considered so far in this chapter, appear to remain somewhat aloof, though not entirely removed, from the matter of audience. Thus, for example, the teleological conception of a creative product, that is one that is intended to meet perceived expectations of social or cultural value, may be understood in terms of targeting a market. In the context of commercial popular music, concepts of culture, audience

and market overlap to the extent that they are nigh interchangeable terms. Certainly, the terms market and audience are indistinguishable for popular commercial music. This issue is considered more closely in the next chapter, analysing conversations with music practitioners.

Distinguishing between Darwinian and Lamarckian variants of evolutionary theory Johnson-Laird's "Working Definition of Creativity" (Johnson-Laird 1988) delineates a tripartite creative framework. First is the given domain that he designates the building blocks; second is the process that is not deterministic, but has "only some pre-existing constraints or criteria that it must meet", a feature clearly merged with the heuristics and knowledge of the first, the domain, and presumably requiring facility with these aspects; third is that it produces a novel outcome (Johnson-Laird 1988, p. 255). In this discussion Johnson-Laird's attention is drawn to making human creativity explicable by analogy with computational creativity architectures of artificial intelligence, an area of import to creativity theory reprised later in this chapter.

Here again the audience is a remote, unfocussed concept, except obliquely in the observation that the degree of success of the creative outcome must be based on its being "judged as striking, brilliant and not banal. These judgements depend on the mental processes of many people" (Johnson-Laird 1988, p. 256). The creative agent and the sociological, or cultural elements of creativity are sensed but dimly in this account, though they are not actually precluded and may be loitering in the domain, and possibly even in the creative process. Conceivably those "many people" may be understood to be audience, or audiences. Moreover, in questioning whether judgement of successful creativity might ever be explicable in terms of cognitive science, Johnson-Laird submits that judgement of creativity must "…depend on historical, cultural and scientific events" (Johnson-Laird 1988, p. 256).

Critiquing evolutionary accounts of creativity

In accounting for creativity, evolutionary Darwinism holds strong metaphorical allure. Yet shortcomings are evident in conscripting Darwinism to the cause. Danger lurks on either side, in seeking to apply evolutionary theory either too generally, or too literally. The most generalised, not to mention superficial, interpretation of Darwinism, is at the level of survival of the fittest. That interpretation implies a complex multi-linear notion of evolution as a blind succession of unscripted events, fortuitous or otherwise, towards an unidentified and unpredictable series of developments, for better or worse, culminating for the most part in the best practical fit to physical exigencies prevailing in any given time and place. This notion of the Darwinian framework implies a stochastic process well suited to creativity accounts. Yet, Darwin's evolutionary framework, encompassing scientifically verifiable milestones based, post hoc or

otherwise on physical events, sits somewhat uncomfortably with the more interior disposition of artistic creativity. Arguably, that interior disposition is less amenable to empirically discernable factors, even when reflected upon retrospectively.

Evidently, Darwinian evolutionary theory represents a diverse and multi-linear process that emerges in multiple, and almost certainly increasingly complex, events. Conceivably, in this framework, those multiple lines crossover and interconnect through intricate and dynamic symbiotic interactions. To an extent, cultural and artistic evolution can be viewed similarly. Yet when taking into account the significance not only of intentionality, in the teleological sense, but also of learning, as a necessary factor in artistic achievement at both the individual and collective levels, the comparison with artistic creativity begins to degenerate. Given that creative activities transpire in the ontological dimensions of cognitive, visceral and cultural, imaginative and artistic time and space, terms such as learning and creativity are not easily equated to the essentially biological developmental dynamics of the Darwinian context.

The process of evolution in the Darwinian sense is endowed more with physical instinctive survival attributes rather than with cognitive intentionality or judgement. Further, though cyclical factors are certainly not outside the realm of evolutionary theory, an evolutionary conception of development suggests a kind of progress not entirely compatible with the creative process. Enquiry of the literature presented in this chapter suggests that artistic creativity implies an iterative cyclic process involving skilled manipulation of the resources in a particular domain to achieve an intended outcome. That is, creative action requires the application of learned competence combined with continuous evaluation and adjustment of the creative work. This describes an evidently intentional cyclic process in arriving at an artistic outcome. While in the physical sense this equates with a generically adaptive process in arriving at a goal, still the Darwinian analogy seems helpful in an analogical sense, though it remains somewhat limited.

A semiological model for creativity

To a lesser or greater degree, many of the approaches to creativity considered so far have merit. For example, fixing the examination of creativity on the creative product is beguiling, though certainly limited, while the evolutionary approach opens great potential for a more general account of creativity. As argued here, the evolutionary account too has limitations. The teleological account of creativity fits most compatibly with the production of popular commercial music, in that popular commercial music is evidently created for a commercial purpose, though again teleology is only a partial account.

Similarly, more formalised accounts such as Simonton's tripartite model; creative process, personality and development, and Johnson-Laird's tripartite model; the domain, the process and a novel outcome, also have merit. These and other attempts to capture the essence of creativity seem incomplete however, particularly because, apart from Jarvie who rests the case very much on product, they do not take into account the work itself, or its reception.

A potentially more complete locus for reflection upon creativity is found in Molino's semiological account (Molino 1990). Molino's framework, formulated with music in mind, applies semiological principles to provide a more systematic account of creativity than any of those so far considered in this chapter. Molino's tripartite model pertains specifically to music, though it could easily apply in other creative domains. Three markers identified in the model are sender, trace and receiver. For the purposes of this study, they may be described as artist, work and audience. Overlaying the sender and trace is the *poietic*, or creative process, while overlaying the receiver and trace is the *esthesic*, or interpretive process as in the following diagram (Molino 1990, p. 105):

Figure 1: Molino's tripartite model

In drawing attention to the creative agent as the sender of the creative product, or trace, Molino casts creativity in an ontological context in relationship with the creative agent and product. He calls this the poietic, or creative process. In drawing attention to the receiver, Molino places the audience in an interpretive role in relation to the trace and, consequently, the sender. Uniting those two sites the trace becomes another site for analysis, thus giving three distinct, but interrelated sites for the consideration of creativity (Molino 1990). This framework provides a more complete scheme for analysis with the potential to capture the best from other approaches considered so far. Further, it allows for the consideration of audience, a site that holds direct interest for this music industry case study.

Alert to the distinction between the poietic and esthesic processes in Molino's model, Nattiez identifies the possibility for disjunction in communication between the artist and the audience, because "…the listener will project configurations upon the work that do not always coincide with the poietic process…" (Nattiez 1990, p. 17). Nattiez does not argue that Molino's theory negates the conception of music as communication. Rather, he explores a level of complexity

that indicates an abundance of potential in Molino's framework. Nattiez offers little support for Jarvie's singular focus on the trace in his critique. Further his identification of possible disjunction between the intention of the creative agent and audience interpretation also renders the teleological account problematic, if not, in some instances, inconsequential. This seems to open up possibilities for the interpretive side of the artistic contract to be considered a site of creativity. Taking this notion from another stance, it is not only the audience that participates in an interpretive process. To the extent that the composition of music and its performance are often not the work of a single creative agent, performance also calls up an interpretive process, thus, though moving beyond Molino's conception, conferring the esthesic dimension with special interest for this project.

Just as Boden's framework of the cognitive space, considered directly below, falls tantalisingly short of engaging with the "how" of learning, so Molino's semiological framework falls short of engaging with the "how" of creativity. Yet, as Boden's framework opens new vistas for investigating learning, Molino's framework brings the artist into direct focus as the locus for the creative process and the creative outcome, thus allowing for separation and fusion in considering the processes and interactions in the physical and ontological milieu that enter into, and even result from, creativity. In marking out the creative agent, the product and the audience as distinct sites of investigation mediated within a dynamic of creative and interpretive processes, Molino provides opportunities for both flexibility and clarity in the investigation of creativity.

5.9.3. Dimensions of creativity

Thus far the literature inquiry has touched on a number of perceived underpinnings and possible drivers of creativity. Focusing more closely on these, the following appraisal is challenged by the holistic nature of these possible dimensions of creativity. In attempting to distinguish some of those dimensions it is clear that demarcation between them is imprecise at best. Thus, though headings appear for each of the factors, underpinnings of creative achievement identified in the creativity literature are nevertheless inexorably tangled, as attested in this account.

Creativity and learning

The relationship between creativity and learning is complex. Each of these vital capacities is multifaceted and interlinked in a complex and dynamic web of explicit and tacit elements. These are likely to include familial and social role models, environment, availability of time and financial resources, and access to physical and educational resources. Personal qualities, both

emotional and physical, also contribute to the highly developed level of motivation and focus required to satisfy the development of specific knowledge and expertise required for creative action. Given that learning, whether formal or informal, provides the basis for developing and ultimately changing knowledge and insight in a given field, learning is a crucial factor in the achievement of creative aspirations.

As remarked earlier, Boden terms this package of knowledge and understanding required by the practitioner the conceptual, or cognitive space. In her terms this is a space in which the generative rules of the domain are mapped, for example, the domain specific rules for music or other domains (Boden 2004, p. 59). Leaving aside what appears dangerously close to a misleading suggestion that music might be reduced to the element of the scale – which in this example represents the musical space – Boden illustrates her interpretation of action within the space of the music domain via a relatively sweeping evolutionary, though unfortunately linear, depiction of the history of European music, thus:

> …a continual definition, testing, and expansion of the possibilities inherent in the scale…{in which} the progression from Renaissance music to the wilder reaches of Schoenberg is intelligible as a journey through this musical space (Boden 2004, pp. 60-1).

She further elaborates the application of her conceptual space framework for musical creativity at the individual level thus:

> The 'journey through musical space' whose travellers included Bach, Brahms, Debussy and Schoenberg was a journey which not only explored the relevant space but created it too. And this creation, like all creation, was selectively constrained (Boden 2004, p. 61).

Somewhat different to the earlier consideration of selective constraints noted in relation to Sculthorpe and Koestler, and later in Briskman's Darwinian account of creativity (Briskman 2009), Boden's conception of selective constraint in the musical space emphasises the requirement for possessing an understanding of the relevant conventions of musical structure; the scale system for example, and other necessary musical elements that both constrain and populate the musical space in which the practitioner works. Though, like Boden, not offering guidance for how it might be achieved, Sawyer also positions learning, or "internalizing the rules" as a self-evident foundation for the expression of creativity:

> Like all creativity, musical creativity depends on a shared system of creative conventions, and no one can create music without first internalizing the rules and conventions of the domain (Sawyer 2006, p. 239).

Facility with the cognitive map gained in experience with, or immersion in, the musical space is evidently a necessary though not sufficient prerequisite for changing the space, and is potentially space changing at the point where creativity is manifested. Hence, though Boden's ecological metaphor of space and maps may seem simplistic, or even self evident, her

framework goes beyond rules and conventions to elegantly accommodate a diverse complex of resources, arguably more richly than in Sawyer's account, or for that matter in such generic conceptions as musical literacy. For music the non-linear, multi-dimensional, metaphor of conceptual space has the capacity to encompass not only technical competence, that is, mastery of the essential musical tool kit. It also has the capacity to encompass dimensions such as cultural fluency that are necessary for the manifestation of creativity in a functional, or transmissible sense.

Boden does not suggest that the map be construed as being accessible, or at least fully accessible, to rational functioning (Boden 2004, p. 61). Hence it might be conjectured that the metaphor can embrace the visceral, or possible extra-cognate dimensions of creativity. In this framework the practitioner is not required to have mastery over every possible dimension of the conceptual space. Rather, what is required is sufficient knowledge and understanding to be fit for the purpose of expression in the domain through creative performance, or production, in a manner that is credible and communicable to an audience. Further, it might be conjectured that the practitioner, or creative agent, typically develops such familiarity with, or expertise in the domain, as to be unaware of the effort that has ensued to make the creative process, or at least aspects of the process almost reflexive, or visceral:

> Some attempts have been made to describe the processes at work in creative acts. One appropriate way to have access to them would be to ask persons who have engaged in acts of creation to report on their experience. […] However, we know the limits of introspection, and that subjective reports do not tell us the whole story; moreover, the more complex the processes at work, the less amenable they are to the person itself (Deliège & Richelle 2006, p. 2).

Boden's qualitative description of complex learning, prerequisite for creativity, provides a generic framework of the "what" of learning that underpins and actualises creative practice. This has relevance for the question concerning the extent to which creativity can be learned as Boden's view posits learning as an obligatory underpinning of creativity. That is not to say that Boden's framework contends that creativity can be learned, but rather that learning is prerequisite for creativity. That is, learning is a necessary but not sufficient factor for creativity. Though addressing the "what" of learning in the broadest sense, Boden's framework does not tackle the "how" of learning.

Creativity and skill

Gaut speculates that creativity can be learned (Gaut 2009). Her approach to creativity also gives ground to the notion of practice as a component of creativity. Defining creativity as, "a capacity to produce saliently new and valuable outcomes", Gaut construes creativity as a skill (Gaut

2009, p. 94). Her thesis is useful to the present study, firstly, because like Boden it associates learning with creativity, secondly, it links creativity with skill, and thirdly, it accords with Jarvie, Briskman and Simonton in supporting a teleological account of creativity. Gaut, like Simonton, speaks of the creative process, the creative personality and creative development as core to discussion of creativity. Also, like Simonton (Simonton 2009, p. 76), her insight extends to considering optimal environmental factors for developing creativity. Though pressing her claim that creativity is a skill that can be learned beyond Simonton's positive speculation on the matter. Gaut asserts that:

> …there are good reasons to think that creativity can be taught as well as learned. Edward de Bono and Tony Buzan have made highly successful careers out of teaching people to be more creative, and there is a plethora of books by educationalists dedicated to teaching creativity, by techniques ranging from imaginative play to fostering a supportive environment. There are in fact, many techniques for teaching creativity. One of the more august is Leonardo da Vinci's advice to the aspiring painter to look at a stained wall and see images in it (Gaut 2009, p. 96).

This is not a strong argument for correlating creativity with learning and skill. A robust market for creativity learning aids does not constitute proof that creativity can be learned. Nevertheless, as remarked earlier, the success and recognition of the work of De Bono and Buzan appears undiminished after more than thirty years, implying a measure of acquiescence to the view that creativity can be learned. While speculation based on such singular evidence might be approached with caution, Gaut's observation, taken together with views advanced by Boden (Boden 1994), (Boden 2004), (Boden 2009) and Sternberg and O'Hara (Sternberg & O'Hara 1999b), linking learning and practice with the development of creative skill, strengthens the view that creativity is a skill that can be developed.

Creativity and practice

Related to Boden's theory of fluency, or facility in the conceptual space, as a necessary prerequisite for creative action, Sternberg and O'Hara draw attention to work suggesting that the relationship between intelligence and creativity is likely to be muddied by the "practice effect" (Sternberg & O'Hara 1999b, p. 268). That is to say that expertise, or skill, in a given domain is typically affected by the intensity and duration of practice. The relationship between practice and skill is such as to make these factors integral, though clearly the term practice requires qualification. Presumably practice may, or may not enhance skill. The adage "practice makes perfect" is commonly countered for aspiring musicians by the caution "practice makes permanent", emphasising the need for quality, or intentional, well-targeted practice.

In Boden's framework this may be expressed as more profoundly inhabiting the space as a basis for realising creativity. Sternberg and O'Hara conclude from their analysis of work on the practice effect that: "Creative expertise is thus not really an ability at all, but rather a result of deliberate practice in a domain and, particularly, in doing creative work in a domain" (Sternberg & O'Hara 1999b). In the context of this statement the term ability suggests talent rather than skill, though the link between practice and ability is not explained. What Sternberg and O'Hara appear to be suggesting is that creativity is not simply a question of talent, a position that appears to be supported by Boden's view. This is a view of creativity as a skill that is cultivated, or at least enhanced, through practice in the domain. Sternberg and O'Hara caution that the practice effect is often overlooked in accounts of creativity (Sternberg & O'Hara 1999b).

The choice of the term "deliberate practice" in the above quoted work of Sternberg and O'Hara picks up the critical issue of quality as a factor in the type of practice that would lead to successful creative work. Focusing on mastery, Ericsson has been a pioneer in this area (Ericsson 1996), linking deliberate and focused practice to mastery. Indeed, the system of apprenticeship through which medieval and renaissance artists achieved mastery was based on this premise. In that case practice was undertaken under the eye of the master. This situation persists in other cultures, for example, Indian and Japanese classical musicians would be expected to practice with a master for up to twenty years before being considered to have mastery in their work. Moreover, in the classical Indian tradition at least, improvisation, a quintessentially creative activity, is central to accepted performance practice.

Creativity and motivation

Sternberg and O'Hara draw attention to motivation as a significant factor for both learning and practice as another underpinning element of creativity (Sternberg & O'Hara 1999b). Considering the literature on both intrinsic and extrinsic motivation in the realisation of creativity in domains such as science, Collins and Amabile find a particularly strong correlation between intrinsic motivation and creative achievement (Collins & Amabile 1999). They hypothesise that motivation may arise from aptitude, or natural interest in a particular area of practice (Collins & Amabile 1999), thereby placing aptitude, talent, or skill among potential contributory elements for creative practice, and consequently, creative success. It might be further speculated that motivation could be influenced by success in the field, via audience or peer affirmation, or conversely by determination to succeed even in the face of negative feedback.

Artists commonly cite the frequently quoted axiom attributed to Thomas Edison (1903), that "...genius is one percent inspiration and ninety nine percent perspiration" (printed in Harpers Monthly September 1932). The term genius is used here in a general sense, though analysis of the literature so far in this chapter on the valorisation of heroic genius indicates that the term genius has little relevance to this study. Similarly, the term talent is used with caution due to its ambiguity. In the romantic view, for example, it could be construed as an intrinsic gift of nature. Alternatively, talent may be, as famously implied in Edison's pragmatic dictum, a skill developed through motivation, learning and practice. The terms, talent and skill, are somewhat interchangeable in the cultural industries, though predominantly media and film, where talent is a term used for hiring people with appropriate skills.

Edison's axiom is echoed in Csikszentmihalyi's assertion that "…a genuinely creative accomplishment is almost never the result of a sudden insight, a light bulb flashing on in the dark, but comes after years of hard work" (Csikszentmihalyi 1996, p. 1). It also finds resonance with Dennett's remarks on the difficulties that confront a poet when attempting to write a sonnet. In developing each line often other lines and even ideas must be abandoned to comply with the rigid constraints of the form (Dennett 1995, p. 223). Yet, reinforcing the view of Sculthorpe noted earlier in this chapter, the constraints of such rigid discipline may, paradoxically, encourage rather than hinder creativity. Moreover, the rules and conventions governing music are typically of even greater rigour than those for literary forms.

Theorising on the notion of intense involvement of creative individuals in time and effort, Policastro and Gardner describe this high level of motivation and engagement in the creative task as "holistic involvement in work" (Policastro & Gardner 1999, p. 214). This contrasts what they term "trivial pursuit" creativity, meaning the kind of everyday creativity spoken of, for example, by Chomsky in relation to human invention in the everyday use of language (Chomsky 1965), or in Boden's P creativity and Sawyers small c creativity.

Like creativity theory, motivation theory has a long history, at least as far back as Aristotle's seven causes of human actions, that discerned chance, nature, compulsion, habit, reason, passion and desire (Aristotle 1991). Maslow, renowned as a founding humanist psychologist, identified a hierarchy of needs concerning motivation (Maslow 1943). Motivation theorists try to understand human performance and functioning to consider motivation in a range of domains, for example, sport (Vlachopoulos, Karageorghis & Terry 2000), (Roberts 2001) and business performance (Herzberg, Mausner & Sydnerman 1959), (Herzberg 1968), (McCoy

1992). Motivation is noted here for its identification in the creativity literature as a driver of creativity.

Creativity, mastery and domain specificity

Considering the link between creative success and time and effort spent in mastering a domain, Eisner (Eisner 2000) draws attention to the work of Bloom on mastery learning (Bloom & Sosniak 1985), (Bloom et al. 1993). Eisner relates Bloom's contention that:

> Abilities are related to the kinds of interactions that individuals had with their environment and the development of appropriate environments is central to the realization of potentialities (Eisner 2000, p. 4).

Opportunities to gain encouragement and constructive feedback are implicit in the interactions of individuals with their environment, and critical to motivation. A complex of environmental factors, material and relational, impinges directly on motivation, itself a multifaceted and critical aspect of creative practice. Adequate domestic, financial and educational resources are obvious. Less obvious are the already noted psychological resources that support motivation, typically encouragement from quality relationships with trusted people, especially family, teachers, mentors, peers, friends and often, role models within the domain as well.

For Bloom the development of domain mastery is correlated not only with practice, but at a deeper level with cultural, familial and socio-economic factors (Bloom et al. 1993). Prosperous, or perhaps more hegemonic, environments are likely to provide encouragement, knowledge, appropriate resources and effective tuition. They are also likely to possess the knowledge, and capacity, to invest time and energy in learning and practice opportunities. For Bloom, in the case of children lacking an enriched environment, those success factors may and should be emulated through manipulation of the learning environment. Eisner explains the implications of Bloom's advocacy of mastery learning as a response to the evident link between privilege and performance:

> Mastery learning was an expression of what Bloom believed to be an optimistic approach to the realization of educational goals. The traditional expectations of a bell-shaped distribution of human performance was, more often than not, a reflection of social privilege and social class. Children who enjoyed the benefits of habits, attitudes, linguistic skills and cognitive abilities available to the more privileged members of society were likely to do well at school on tasks for which those attitudes and skills were relevant (Eisner 2000, p. 5).

The overwhelming connection that unites learning and creativity makes learning a binding factor for the development of creative skills. The importance of mastery as an implied underpinning of creativity, aligns with Boden's framework of mapping the domain. The related

underpinning of mastery appears to be gathering growing interest as a critical factor for creativity (Ericsson 1996), (Nickerson 1999).

Mastery touches upon the issue of domain specificity, an issue that recurs occasionally in the creativity literature. Notwithstanding opinions favouring a general account of creativity, mostly in relation to the mundane, or P creativity articulated by Boden, opinion holds for the most part that creativity is domain specific. These dimensions of creativity, however, are not mutually exclusive. Indeed, claiming this to be an area on which a degree of international agreement seems to hold, Sternberg positions the issue thus:

> Creativity is neither wholly domain specific nor wholly domain general. It has both domain-specific and domain-general elements. The potential to be creative may have some domain-general elements, but to gain the knowledge one needs to make creative contributions, one must develop knowledge and skills within a particular domain in which one is to make one's creative contribution (Sternberg 2006, p. 2).

Ward et al. draw attention to literature suggesting that some broad creativity skills might be used, for example, to invent different types of appliance, and conjecture that: "Studies of creative cognition suggest that both positions are partly right" (Ward, Smith & Finke 1999, p. 208). They concede, however that "there is considerable evidence that creative performance is tied to expertise in a particular field, which enables the person to retrieve relevant information and to recognize when a new idea is likely to be valid or significant" (Ward, Smith & Finke 1999, pp. 207-8). Certainly music must qualify as one of those particular fields.

Bloom's theory of mastery learning depends upon the achievement of expertise in a particular field (Bloom & Sosniak 1985). Moreover the significant personal commitment required for mastery to be achieved evidently fits with literature emphasising the time and directed cognitive and emotional investment required to become familiar with the domain. Mayer points to the effect of extended, specialised practice on cognitive performance and concludes that studies of developmental musical abilities show relatively greater importance of practice and environmental support than of innate or initial ability (Mayer 2003). Focusing on exceptional individuals such as Einstein, Darwin and the Bronte sisters, Howe eschews the notion of genius, contending that these individuals worked hard and practised intensively for long periods of time under effective tutoring from expert parents or other mentors (Howe 2001).

This general rule of learning across many, if not all, disciplines, including those areas not usually considered to be creative, is often overlooked. Certainly it has no place in the inspired genius account of creativity. Further, recapping Deliège and Richelle, artists self reporting may fail to fully identify the processes or the hours invested in learning to develop the expertise through which they produce their creative works:

> One appropriate way to have access to them would be to ask persons who have engaged in acts of creation to report on their experience…. Such material is available in a number of artists, musicians, and scientists' writings on their own creative behaviour, and is undoubtedly a source of insight that the psychologist cannot ignore. However, we know the limits of introspection, and that subjective reports do not tell us the whole story; moreover, the more complex the processes at work, the less amenable they are to the person itself (Deliège & Richelle 2006, p. 2).

Thus artists are likely to underestimate the effort they have expended, not only in developing their creative skills to the level of professional competence, but also the effort required in continuing to maintain and further their technical and creative skills. Essentially, after many years of intense learning and practice in a domain, the creative processes of an artist may have come to seem merely spontaneous. At that stage of development, the artist is likely to be less conscious of the specific strategies and actions brought to the process of creating, thus rendering tacit many dimensions of the total artistic effort.

Audience perceptions would seemingly be even less likely to include awareness of the effort required in preparation and production of the artistic work. It is likely, even, that such awareness is suppressed to maintain belief in brilliance and spontaneity. Many artists have the experience of being described as lucky to have such talent, usually by people not acquainted with the hours of learning and practice actually undertaken. This level of innocence regarding the intensive preparation required for artistic development and performance is applied to artists both in their general artistic development as well as to the achievement of particular artistic works either composed or performed. The same innocence seems not to apply to more overtly physical sports professionals, or even dancers, for whom the necessity of rigorous training is possibly more apparent.

This is not to suggest that artistic development takes a linear path of progress, or that the investment of time and effort required of each artist would be the same. Quite apart from individual differences, musicians work in a diverse range of practice and many move across musical boundaries. For example, classical musicians would typically begin their musical education in early primary years, while popular musicians may take a different, and shorter pathway to professional performance. Moreover, points of fusion and collaboration between different musical cultures and genres often contribute to creative achievement. This may be manifested in collaborations between artists of different genres or musical cultures, or by artists who themselves practice across genres and cultures.

Further, musicians practising in the popular commercial music field may or may not have early classical training or community music experience. Ericsson et al. claim: "It now takes most elite musicians 15 to 25 years of steady practice, on average, before they succeed at the international

level" (Ericsson, Prietula & Cokely 2007, p. 4). Even after 15 to 25 years of steady practice, however, success is not automatically assured. Perhaps this dictum for "elite musicians" has less relevance for popular musicians, as they are not generally characterised as elite musicians, though it has to be admitted that such categorical judgements are precarious. Further, though musicians in the popular music domain may not require the specified 15 to 25 years of practice, nonetheless they also are likely to benefit from practising their craft.

Creativity and change

Concomitant with the issue of mastery is that of change in the domain. Inevitably change occurs as a result of diverse variables arising from cultural, technical and other factors. Feldman cites Piaget on the aspect of change as a function in the general nature of creative domains:

> Piaget found that the content and structure of a domain changed over time, including the domain's underlying principles, range of topics, unsolved problems or unresolved issues, and technologies and techniques for acquiring and extending its borders (Feldman 1999, p. 177).

This observation lends weight to Jarvie's earlier cited view on the iterative dimension of creative actions. Though Jarvie implies that a focus on product incorporates consideration of change, and even retraction where circumstances require (Jarvie 2009, p. 58), the relationship between those particular factors seems tenuous. Still, his perspective of creativity as an iterative process offers a dynamic view of creativity in the context of time and place.

Certainly, creativity itself is inherently a phenomenon of change. Artists are involved in changing perceptions and products. Moreover, practising continuously in any domain, artists inevitably respond to change in such areas as new technologies or changes in standards, customs or fashion. Creative and technical responses to such change occur in diverse and complex ways that may be tacit or deliberate, depending upon the relative frequency and significance of change factors. Such change may have significant implications for creativity. The above remarked psychoanalytic movements of Freud and Jung, for example, had a palpable impact on the creative expression in the music of the nineteenth and early twentieth centuries. Technological developments, for example in musical instruments, also have profound consequences for creative expression.

Furthermore, as remarked in earlier discussion, creative practitioners not only respond to change, they are themselves agents of change. Change is an area of evident interest in cultural accounts of creativity and has acute relevance to the commercial popular music industry, an industry that has close parallels, for example, with that of the clothing fashion industry. As the top ten charts attest, fashion is a critical factor in the popular music industry.

5.9.4. Creativity, neuroscience and technology

The broad areas of neuroscience, technology and philosophy of mind are considered here for their unique capacity to capture current discourses across so many areas that bear closely on creativity. These emergent disciplines have come to inform how learning takes place, how mastery is achieved and how new ideas can emerge from domains. Moreover, as will be elaborated, artificial neural networking, or machine intelligence, potentially releases creativity from the stricture of god given gift, and the contest of nature/nurture.

Though the terms neuroscience and cognitive science are not consistently applied, and are sometimes combined (Bennett & Hacker 2003, p. 68), these terms may also be comprehended as having distinct meanings. Three major general publications cited here; Bennet and Hacker's compellingly scholarly *Philosophical Foundations of Neuroscience* (Bennett & Hacker 2003); Boden's monumental two volume *Mind as Machine: A history of cognitive science* (Boden 2006a), (Boden 2006b), and Russell and Norving's more explicit account, *Artificial Intelligence: a modern approach* (Russell & Norving 2003) provide detailed histories of developments in and across the areas of neuroscience, cognitive science and artificial intelligence. Notably these publications also bear titles along the three areas described in this section of the chapter, that is: neuroscience and its modern sub-sets, cognitive science and artificial intelligence.

As collegiality and integration have emerged across discourses associated with brain science, communication has intensified across scholarly disciplines of psychology, linguistics, neuroscience, philosophy, the arts and engineering and computing science. Thus these formerly isolated activities now converge in neuro and cognitive science. As more all-embracing activities across these areas of cognition continue to thrive, the effect becomes exponential as new knowledge is distributed and considered across a complex of communities in a way unprecedented in modern times. Concomitantly, escalating knowledge of work and scholarship in the neuro and cognitive sciences, widely available in both scholarly and public media, further provokes interest and support.

Predictably, these now established connections have resulted in a degree of symbiosis across many singular fields, allowing them to inform each other to an extent unknown perhaps since nineteenth century scholarship. Essentially, these developments have also formed a new focus for important philosophical predicaments, as outlined below.

Creativity and neuroscience

Neuroscience takes in the disciplines of neuroanatomy, neurophysiology, neuropsychiatry and neuropsychology. Accounts of creativity related neuroscientific research in the popular writing of neuroscientists Sacks (Sacks 2007) and Doidge (Doidge 2008) was considered earlier. Attention was also drawn to three areas of neuroscience that have investigated creativity in different ways:

- psychometric procedures involving testing and measurement of functional and performance aspects of the creativity of individuals
- psychodynamic methods involving traditional case study clinical psychoanalysis
- empirical anatomical studies, both medical and experimental, of the human brain, using a range of relatively new and advancing technologies such as functional magnetic resonance imaging.

Case study reports also fall within the domain of neuroscience, such as the above mentioned clinical case study accounts documented and analysed through the work of psychotherapists. Others are drawn from accounts of creative people themselves and from historical research into the lives of creative people. This last category includes cases documented by widely cited writers on general creativity and genius, of whom Csikszentmihalyi (Csikszentmihalyi 1990), (Csikszentmihalyi 1996) is a prominent example.

Though neurological investigation has contributed to scientific studies of creativity from a combination of anatomical and psychological perspectives, this significant body of research has yielded comparatively limited knowledge about creativity. As noted in earlier discussion, empirical findings of brain imaging studies derived from brain plasticity research have identified distinctive anatomical features in musician populations. Yet post hoc empirical brain anatomy findings have yet to provide new insight relevant to any of the guiding creativity questions of this literature enquiry.

Escalation in brain imaging technologies, particularly over the last fifteen years, has had the effect of significantly intensifying awareness, interest, activity and discovery in the field of neuroscience. This has evinced a dramatically better understanding of brain plasticity and of neural pathways and their function and operation in the biology of sentient beings. Still, the power of new technology to observe brain functioning in this intensification of neurological activity is yet to address human creativity in any deep sense. Founded on empiricism, however, neuroscience is at the less contentious margin of what has come to be known as brain science.

Creativity and cognitive science

This enquiry is limited to a synopsis of the vast creativity literature from the cognitive science domain. Cognitive science joins philosophical and psychological analysis with experimental work, often providing new insights into creativity. Some of that work is using increasingly sophisticated computer based tools of artificial intelligence to simulate human cognitive behaviour. Notwithstanding scepticism over arguably too mechanistic an approach, and insufficient attention to the ontological and semiological dimensions of creativity, this relatively new field has opened up new opportunities for the investigation of creativity. Deliège and Wiggins provide a current overview of neuroscientific approaches to musical creativity and computer models of creative behaviour (Deliège & Wiggins 2006).

Philosophical and psychological interest in the ontological and emotional dimensions of creativity are relevant to the contribution of the cognitive sciences to the creativity literature. Vis-à-vis that literature Dielège and Richelle raise an appeal to "get rid of *creativity* and look at *creative acts*" on the basis that creativity studies ignore the fact that creativity is necessarily enacted in "one specific domain, using a certain material, resulting in some type of product" (Deliège & Richelle 2006, p. 2). Further Deliège and Richelle question the seemingly immutable coupling of creativity with cognition: "Reducing creative activity to cognition is questionable. Clearly, pieces of art, literature, or music are more often than not emotionally loaded" (Deliège & Richelle 2006, p. 2).

Though under the broader umbrella of neuroscience, the discipline known as cognitive science specifically incorporates philosophy, linguistics, anthropology, sociology, education, neuroscience and artificial intelligence. Among the neurosciences, cognitive science takes perhaps the most controversial approach to the brain, and to cognition As its name implies, cognitive science transcends the anatomical in the sense that it is more specifically the study of thinking. This interdisciplinary domain has introduced a unique forum. That forum is not only for brain science and closer integration between brain and computing science. It is also for the attendant issues of a more existential nature, including hard questions of import to creativity. In this context notions of consciousness, mind and brain are confronted by a comparatively newly grafted aggregation of discourses. Of note in this now established domain is the prevalence of practitioners having acknowledged expertise across at least some, and an active interest in all the above-mentioned domains of cognitive science.

Occupying, as it does, a comprehensive range of domains germane to creativity, it is not surprising that many cognitive scientists concern themselves with creativity. Boden, a prolific

creativity scholar (Boden 1994), (Boden 2004), (Boden 2009), exemplifies developments populating the field of cognitive science. Initially a medical scientist and then a philosopher (Boden 1990), (Boden 1996), Boden stands in the scholarly literature as a distinguished and much cited cognitive scientist. A pioneer in cognitive science and artificial intelligence, Boden founded the School of Cognitive Science and Computing Sciences at Sussex University in 1987 (Boden 2004) when cognitive science and artificial intelligence were newly emerging fields of scholarship. Her critical study, *Mind as Machine: A History of Cognitive Science*, a scholarly two volume work published in 2006, covers the complex history of ideas, issues and progress of cognitive science to date (Boden 2006a), (Boden 2006b). As a philosopher and cognitive scientist, Boden also exemplifies the integrative consequence from the establishment of cognitive science as a broad discipline incorporating many disciplines pertinent to cognition. Where philosophers and scientists argue over the capacity of artificial intelligence to enlighten, or hinder, our understanding of the human condition, Boden breaches the divide in her capacities as philosopher and cognitive scientist.

Supporting assertions of creativity scholars that the association of ideas is necessary for creativity, Boden refers to this phenomenon in artificial intelligence parlance as the combinatorial process (Boden 2004, pp. 41-3). Johnson-Laird, a practitioner in music and artificial intelligence, finessing the notion of the combinatorial process for music, asserts that "...a musical composition may derive from entirely within one frame of reference – the frame provided by the constraints of the composer's style" (Johnson-Laird 1988, pp. 254-5). Though not denying the combinatorial aspect of music, this view, rather, provides a cultural caveat. Further, it throws light on confusion that is likely to arise in fusing disciplines that are yet to find a shared language. As detailed later in the chapter, the combinatorial process, noted here and in earlier discussion of Darwinist evolutionary accounts of creativity, forms a constant thread in creativity discourse.

While many theorists emphasise the association of ideas, Russell and Norving (Russell & Norving 2003, p. 758), and indeed philosophers, Koestler (Koestler 1975, pp. 38-9) and Deleuze and Guattari (Deleuze & Guattari 1994, p. 201), a language continues to evolve in the creativity discourse as a consequence of the fusion of what were formerly entirely separate disciplines. Bennett and Hacker compellingly elucidate specific problems in this emerging language (Bennett & Hacker 2003). It may equally be argued that given an effort to achieve clarity of language and common understanding across the disciplines, that this cross discipline fertilisation has the potential to benefit each of the areas embraced by cognitive science. Hence

the result of these conversations as they mature and increase in clarity may be greater than the sum of its parts.

Creativity and artificial intelligence

Artificial intelligence is a dynamic branch of cognitive science that draws on neuroscience, engineering, mathematics and computer science. Artificial, or machine, intelligence stands as a virtual caldron for prominent epistemological questions sighting longstanding philosophical discourse in the cognitive domain. As an important component, marker even of cognition, creativity is a significant indicator in this area of cognitive science. Developments in artificial intelligence provide a functional site to investigate cognition from the perspectives of both sentient and machine agents.

Under the heading *Thinking humanly: The cognitive modelling approach*, a section of work on the history of artificial intelligence, *Artificial Intelligence: A Modern Approach,* Russell and Norving provides a concise, though perhaps provocative, description of the field:

> If we are going to say that a given program thinks like a human, we must have some way of determining how humans think. We need to get *inside* the actual working of human minds. There are two ways to do this: through introspection – trying to catch our own thoughts as they go by – and through psychological experiments. Once we have a sufficiently precise theory of the mind, it becomes possible to express the theory as a computer program (Russell & Norving 2003, p. 3).

This simple yet useful explanation is found in this history of artificial intelligence that is widely mandated text for use in undergraduate computing science courses. As a practical explanation of artificial intelligence that does not aspire to thick description, much less philosophical scrutiny, the need for a measure of caution is acknowledged regarding some of the bold assumptions embedded in this exposition. The somewhat grandiose claim of the last sentence, for example, should be understood in relative terms. So too, the use of the relatively misleading generalisation "computer program" might be viewed with reservation. Nevertheless this concise description evades on one hand, while admitting on the other, a vast minefield of contested areas in philosophical and scientific discourse, particularly relative to creativity dilemmas of an ontological nature, some of which are canvassed below.

A feature of artificial intelligence that may hold promise for better understanding creativity is the focus on neurophysiology undertaken for the purpose of replicating neural networks as a model for developing more powerfully functioning artificial systems. The concern of artificial intelligence with simulating sentient cognitive processes for appropriation to machines makes it a virtual testing area for creativity and one that stands at the most controversial margin of

cognitive science in relation to enduring philosophical objections. These objections, surveyed later in more detail, pertain largely to a perceived failure of cognitive scientists to distinguish between the brain, the mind and consciousness. Unsurprisingly, some philosophy of mind practitioners perceive a mechanistic bias on the part of computer scientists involved in artificial intelligence and simple statements by writers such as Russell and Norving, such as that quoted above, give wing to these suspicions (Russell & Norving 2003, p. 3).

Inevitably, questions of dimensions of mind attach themselves to accounts of creativity. What it is to be a conscious being and what it is to be an individual and social being? Manifestly, notions of creativity and individuality have preoccupied thinkers from ages past, and predictably, the intensification of activity and sophistication in artificial intelligence lends increased urgency, emphasis and focus for discussion of these epistemic questions. In that context it is perhaps inevitable that machine intelligence combines with enduring philosophical problems.

Uniting mathematical principles with neuroscientific knowledge, artificial intelligence practitioners use theoretical, experimental and applied methods to simulate and project neuroscientific knowledge outside of the compass of sentient beings into machine intelligence. Artificial intelligence is theoretically, technically and scientifically a complex area that attracts huge scientific, government and business attention internationally. For the sake of simplicity, two main conceptual underpinnings of artificial intelligence are broadly described here. One is based on a deductive cognitive model and the other on an inductive cognitive model. The first is the original approach of conventional computer programming, or information processing. That system involves sequential symbol processing models based on a deductive framework. Naming this original approach the older view Norman explains:

> The emphasis was on symbolic representation, and hence the emphasis was on the rules of thought, problem solving, and memory. This led to the development of frame-based schema systems…
>
> In the conventional system, we distinguished between the information being processed and the processing structures (Norman 1986, p. 545).

Put simply, the conventional, or strong computing system (Russell & Norving 2003, p. 947), unlike human cognition, operates in a closed mode that is ultimately controlled by the program structure of rules with which to process prescribed bundles of information. Its fitness for purpose and consequent success depends on the skill of the programmer in matching the structure and bundling appropriate information to meet the outcomes required of the program. Hence, though powerful in performing basic calculations, or processing information for problem solving, its outputs are prescribed by a rigid set of rules, or grammar, pre-determined

by the programmer. Such systems are capable of greater speed than humans in basic information processing and therefore useful as an efficient aid for a wide variety of functions.

Total system integrity is necessary for these conventional computer programs. Therefore if a single component fails the system does not function. Moreover the problem solving character of this machine platform is of a binary nature. Thus, for any assigned calculation there can be only one correct response. This type of computing information architecture is derived from the work of computing pioneers such as Turing who suggested in the mid twentieth-century that a high speed digital computer might exceed contemporary calculating machines to develop something like human intelligence (Dreyfus 1992, p. ix). Dreyfus attributes to John Haugeland the now widely used title and acronym, Good Old Fashioned Artificial Intelligence (GOFAI), for this style of computing: (Dreyfus 1992, p. ix).

Conversely, human cognition is not, or at least not exclusively, serial in function. It is complex and associative, as remarked earlier, and in a physiological sense, operates flexibly through the neural system. Dreyfus described this neural system as holistic and requiring: "…involvement in ongoing activity, whereas symbol representations were atomistic and totally detached from such activity" (Dreyfus 1992, p. xi). Further, as discussed earlier in the present chapter, it is well demonstrated that where disease or accident render a function, or functions inoperative in one area of the neural system, control of that function may, and is likely to be, assumed by another area, or areas, even those associated with dissimilar functions (Pinaud, Tremere & DeWeerd 2006), (Doidge 2008). This is the cognitive model for the newer, or weak artificial intelligence (Russell & Norving 2003, p. 947). The newer model is a more open form of artificial intelligence that encompasses not only stochastic attributes, but also the development of heuristics.

The new model of weak machine intelligence is known variously as; neural artificial intelligence; neural networks; parallel distributed processing (PDP) and, or, connectionism. Unlike the conventional, or strong model, the new model encompasses an open system capable of interacting with the external environment and of producing something new. This is evidenced, for example, by the earlier mentioned music machines of Johnson-Laird (Johnson-Laird 1988), and Cope (Cope 2005). Describing PDP as the new view, Norman explains:

> The new view is quite different. Under this new view, processing is done by PDP networks that configure themselves to match the arriving data with minimum conflict or discrepancy. The systems are always tuning themselves (adjusting their weights). Learning is continuous, natural, and fundamental to the operation (Norman 1986, p. 545).

Thus, in the new model there is no distinction between the information being processed and the processing structure, they are the same. To that extent, as Norman identifies, this is a learning system:

> In this new approach, learning takes place by changes in the system itself. Existing connections are modified, new connections are formed, old ones are weakened… The information is reflected in the very shape, form and operation of the processing structures (Norman 1986, p. 545).

McClelland, Rumelhart and Hinton offer a concise yet comprehensive rationale for PDP:

> Though the appeal of PDP models is definitely enhanced by their physiological plausibility and neural inspiration, these are not the primary bases for their appeal to us. We are, after all, cognitive scientists and PDP models appeal to us for psychological and computational reasons. They hold out the hope of offering computationally sufficient and psychologically accurate mechanistic accounts of the phenomena of human cognition which have eluded successful explication in conventional computational formalisms; and they have radically altered the way we think about the time-course of processing, the nature of representation, and the mechanisms of learning (Rumelhart, McClelland & Al 1986, p. 11).

To the extent that they model neural interactions of the brain, connectionist computational architectures involve a process of both exciting and inhibiting cells in simultaneous rather than sequential or serial computing actions. Though the point may be moot, as will become apparent, this connectionist model resembles sentient cognition more closely, crudely though that may be, than any other currently available machine based computational method. Recalling earlier discussion on evolutionary accounts of creativity (Johnson-Laird 1988), (Dennett 2007), (Briskman 2009), (Simonton 2009), PDP functions as a constrained open learning system with stochastic qualities. In Simonton's Darwinian account of the creative process creativity is viewed as: "…a *combinatorial* or *constrained stochastic* process" (Simonton 2009, p. 81), categorically a connectionist view of creativity.

Norman details the deficiencies (Norman 1986, p. 539), as well as strengths (Norman 1986, p. 535) of connectionist architectures, and urges harmonisation of both the old and new systems as a means of escalating the cognitive power of machine intelligence:

> But we have a new set of tools, powerful tools that can help make major advances on a number of fronts. These new mechanisms are fundamentally subconscious ones. Learning results from the natural adjustments to states: It results naturally from the operation of the system. But in the process of examining what extra mechanisms are necessary to guide the learning and the overall behavior of the system, we appear to be led directly to consideration of the interacting roles of processing mechanisms and evaluative mechanisms, of subconscious and conscious processes. A nice fallout (Norman 1986, p. 546).

Joining artificial intelligence and human cognition theory with creativity

A nice fallout indeed, this evokes a range of creativity theories in addition to the Darwinian accounts of creativity already considered. Besides bringing combinational theories of creativity

to mind, Norman's reflection of 1986 anticipates more recent theorising on dual processing in human cognition. This more recent theory is summarised by Frankish and Evans as:

> …ambitious theories of mental architecture, according to which humans have, in effect, two minds. Such theories claim that human central cognition is composed of two multi-purpose reasoning systems… the operation of the former having fast-process characteristics (fast, effortless, automatic, non-conscious, etc) and those of the latter slow-process ones (slow, effortful, controlled, conscious, etc) (eg Evans and Over 1996; Sloman 1996; Stanovich 1999, 2004) (Frankish & Evans 2009, p. 1).

Manifestly, dual process theories of cognition are quite distinct from Cartesian dualism. Nor should they be confused with the naïve and misleadingly simplistic right-brain, left-brain modularity espoused in popular creativity literature. Dual system theories of cognition can be traced from accounts of mental division proposed by thinkers from Plato to Freud and beyond (Frankish & Evans 2009, p. 2). Frankish and Evans contend that while not unique to contemporary theorists, modern dual process theories of cognition represent "the latest and most sophisticated development of ideas that have been around for centuries" (Frankish & Evans 2009, p. 1).

Juxtaposing these modes of cognition unites two allegedly disparate dimensions of creativity. These were remarked earlier in considering Boden's emphasis on the significance of the cognitive space of a domain for operative creative practice (Boden 1994), (Boden 2004), (Boden 2009). Consideration was given there to the role of learning in creativity. That is, learning might be construed as the process of gaining knowledge in the domain, or competence in the cognitive space of the domain, with practice becoming increasingly fluid as familiarity with the space broadens and deepens. This accords with the two modes of cognition described by Frankish and Evans and both of those modes would seem to be essential for musical creativity.

While Boden's general model does not engage with how the cognitive space is negotiated in the learning process, or, as it were, in the world, evidently acquisition of competence in the domain requires the slow, conscious and intentional mode. While the fast, automatic and non-conscious mode is suggestive of inspiration and imagination, the second, evidently associated with conscious or intentional thinking, underpins the development of mastery, or competence and skill in the domain. Boden's view is that this knowledge of the domain carries the freedom to experiment with the material of the domain that is prerequisite for creative expression. The processes depicted by Frankish and Evans as a duality, are construed more holistically by Dartnall who sees them working interactively in a continuous process (Dartnall 2002, p. 2). Further, Dartnall addresses the negotiation of the cognitive space of the domain, or of multiple

domains of general experience, and takes it into the world where that which may begin as deliberately, or otherwise acquired explicit knowledge, eventually becomes implicit knowledge, or "knowledge-about" through habituation in creative practice, or in his more universal approach, participation in the world:

> …we first learn to make judgments about the world and then deploy this ability off-line to construct representations in our minds: we acquire our cognitive abilities in problem solving and making sense of the world…and we deploy these abilities off-line to generate and manipulate representations in the imagination. This can be a recursive process, in which the output of one constructive cycle is the input to the next (Dartnall 2002, p. 3).

Here the off-line metaphor is interpreted as standing for the non-conscious, or imaginative side of the integrated two minds theory, which in Dartnall's view emerges from, or within, a framework of knowledge and skill.

Critiques of cognitive science and artificial Intelligence

Dartnall proposes that "…cognitive science needs a new epistemology to account for the fluidity and flexibility of creative thought" and pleads for a "…non-atomistic, non-combinatorial theory of knowledge that can account for the fluidity and flexibility of human thought" (Dartnall 2002, p. 1). Though cloaked in arguably dubious generalisations suggestive either of wilful bias, or misunderstanding of the diversity and complexity of either cognitive science or creativity theory, these proposals merit attention:

> Classical cognitive science says that we are like calculators: cognition is the syntactic manipulation of formally specified, but interpreted, inner elements called "representation." I shall call this "representationism".
>
> The main model that we find in creativity theory is very similar: creativity is the combination or recombination of what we already have, and "what we already have" is usually seen as a set of atomic elements, I shall call this "combinationism" (Dartnall 2002, p. 3).

Though it is unclear what actually constitutes "classical cognitive science", this apparently pejorative term is commonly used to impute a conception of the field as narrow, old fashioned, technicist and atomistic. This line of argument finds its apogee in one-dimensional generalisations such as these. Also difficult to leave uncontested is the assumption that combinatory theories of creativity inevitably fall somewhere below an uninformed, if sometimes fortuitous, "this goes with that" simulation of creativity. These overstated assumptions educe a cautionary note when considering critiques of cognitive science, a discourse, regrettably, beleaguered with gratuitous rhetoric. Quibbles aside, Dartnall's more expansive ideas hold great interest for the present discussion. Important among these ideas is the notion that: "Representational and factual knowledge range along a continuum" (Dartnall

2002, p. 9); a proposition that elegantly marries both sides of dual cognitive process theory while opening up other vistas of cognition critical for understanding creativity.

Focussing on fantasy and imagination, Dartnall argues that it is our non-representational capabilities that enable us to generate images and memories in constructing representations through knowledge about things in the world:

> It is a crucial aspect of creativity that we can imagine pretty much anything... I claim that an active, constructive, knowledge-about account of cognition can account for this ability. It can say that we construct representations in the imagination, deploying our knowledge about things in the world, and that we modify them by using our general knowledge of the properties of things in the world (Dartnall 2002, p. 27).

This knowledge-about account of cognition intersects with a critical quandary in artificial intelligence that intimately involves creativity. Known in the cognitive science discourse as the commonsense knowledge problem, this issue is famously articulated by Dreyfus:

> My first take on the inherent difficulties of the symbolic information-processing model of the mind was that our sense of relevance was holistic and required involvement in ongoing activity, whereas symbol representations were atomistic and totally detached from such activity. By the time of the second edition of *What Computers Can't Do* in 1979, the problem of representing what I had vaguely been referring to as the holistic context was beginning to be perceived by AI researchers as a serious obstacle. …I therefore tried to show that what they called the commonsense-knowledge problem was not really a problem about how to represent *knowledge*; rather, the everyday commonsense background understanding that allows us to experience what is currently relevant as we deal with things and people is a kind of *know-how*. The problem precisely was that this know-how, along with all the interests, feelings, motivations, and bodily capacities that go to make a human being, would have had to be conveyed to the computer as knowledge – as a huge and complex belief system – and making our inarticulate preconceptual background understanding of what it is like to be a human being explicit in a symbolic representation seemed to me a hopeless task (Dreyfus 1992).

Though a differently nuanced position than that of Dartnall, still these comments are largely aimed at GOFAI, rather than artificial neural network platforms. As such they exemplify critiques that assume cognitive scientists in general and computer scientists in particular hold a computational conception of the sentient brain, though they concede problems in operationalising artificial cognition. Indeed Dartnall names a number of cognitive scientists that have demonstrated such views (Dartnall 2002, p. 7). Further examples could be added from the present enquiry, in particular Russell and Norving (Russell & Norving 2003, p. 3) for example. Yet failing a rigorous search of the cognitive science discourse, to say that these views are universally held would have to be deemed a dubious generalisation, though presumably intended to simplify the discussion of what is after all a very complex field.

Dartnall proposes that the acquisition of common sense knowledge begins in childhood through interaction with the world (Dartnall 2002, p. 30), a view strongly supported in the discourse of

embodied cognition and embodied consciousness (Damasio 2000), (Gibbs 2005), (Chemero 2009), (Gallagher 2006), (Noe 2006), (Noe 2010), (Rockwell 2007), (Thompson 2007). Arguably that view may be projected to music where knowledge, skill and practice become integrated through the experiential process of music making, whether composition, performance, direction or sound production. After all, with the exception of actors and sportspersons, in what other profession or vocation than music is the practitioner called on to "play"? The notion of play strongly evokes concepts such as imagination and experimentation, hence: "we know *about* the domain, and we deploy this knowledge off-line to construct representations in the imagination and created products in the external world" (Dartnall 2002, p. 14).

Yet, while favouring the case for situating creativity in a framework of knowledge, skill and practice, Dartnall's opposition to combinationism appears to rest on precarious ground. It is difficult to understand why his case for embedding creativity in the framework of knowledge, skill and practice specifically excludes combinatory accounts of creativity:

> It is a tautology to say that nothing can come of nothing. But creativity does not begin with nothing. It begins with knowledge, skills and abilities – the full panoply of human cognition. The challenge is to explain how we can get one type of thing out of another type of thing, for it is a commonplace that we get explicit artefacts, created products, out of implicit knowledge and skill… These are the palpable products of our knowledge and ability, so that there really is something there when there was *nothing of the kind* there before, but not when there was *nothing at all* there before" (Dartnall 2002, p. 20).

It is hard to imagine that combinationists would take such a literal view of their more evolutionary account of creativity.

Conceding that computers can perform many tasks, in certain areas even more efficiently than humans, Dartnall takes the Dreyfus line, urging that artificial intelligence be tested rather on what it cannot, or cannot yet do: "and it is here that creativity provides us with the acid test" (Dartnall 2002, p. 17). He then considers David Cope's Emmy, drawing attention to Hofstadter's concern that Emmy is a simple machine though it can generate, or "compose" music capable of eliciting an emotional response from an audience (Dartnall 2002, p. 21). Notwithstanding Emmy's demonstrated power to elicit an emotional human response, from Dartnall's account it appears that the machine is built on the maligned GOFAI representational model – not even the more flexible artificial neural network model.

An indicator of the difficulty of explaining Emmy's apparent creativity is reflected in Hofstadter's use of the expression, "soul" in attempting to explain the phenomenon to Dartnall (Dartnall 2002, p. 23). Ironically that amorphous term calls to mind Gilbert Ryle's sardonic

explanation of Cartesian philosophy as "dogma of ghost in the machine" (Ryle 1949), though emphatically neither Hofstadter nor Dartnall could be described as Cartesian. Dartnall poses the following question:

> How does Emmy produce deep and moving music? Even if she is not creative, we still need to know how she can compose such wonderful stuff. How can she compose 'music that would come from the soul if it was created by a human'? What is the magic in her innards that enables her to retain the soulfulness of her input, down to a fine level of granularity, and then to recombine these "music molecules," … in such an effective way? How can combinationism do this (Dartnall 2002, p. 23)?

In answering his question, Dartnall's case against the notion that Emmy may be creative is unconvincing. He makes two concessions however; firstly he concedes that humans learn about music through tuition, a role in this case fulfilled by Emmy's creator, David Cope; secondly he concedes that humans may develop their expertise through imitation of the work of others in the field, a feature in which Emmy excels. He considers, however that Emmy works from a compilation of components designed by Cope that are systematically labelled both laterally and vertically in a hierarchy of levels from local to global. He contends that this does not engender creativity because the process is highly conceptualised, in fact, reverse engineered as the inputs received not only include the above mentioned hierarchical components, but also include plans or instructions that give Emmy the necessary knowledge-about to use the inputs productively. This leads him to conclude that it is Cope who is the composer (Dartnall 2002, pp. 23-5).

Adding to his case against artificial creativity Dartnall calls on etiology. In this context he raises the hypothetical case of the monkey who, being set up with a typewriter on which it randomly hits the keys, may over time produce a poem, though it would not be considered creative:

> This shows that we judge creativity at least partly in terms of causal origins. For this reason it seems to me that Emmy might be the *final failure* of combinationism (and, for that matter, of the Turing Test). Rather than agonizing about the fact that she produces beautiful music, we might say, "This shows that *even a relatively simple machine* can be a successful combinationist. Although the elements have been successfully combined, *there is not creativity here*." So either we can say that Emmy is creative, on the basis of her output – and then we have to ask how a relatively simple machine can be creative – or we can say that she is not creative, because she is a relatively simple machine. In this case, recombinant music is not creative: it is merely syntactic manipulation. And in this case, music can come from the human soul, but it can *also* be produced by a relatively simple machine (but then it is not creative) (Dartnall 2002, p. 23).

While etiology is on the whole considered integral to creativity theory, albeit in varying degrees, it seems a long bow to compare a monkey with an artificially intelligent machine. Certainly the monkey, like a human, is capable of both more, and less than a computer. Nonetheless, though possibly not pertinent to the point Dartnall is making, monkeys and machines are not comparative entities. They are from different categories. Machines may be categorised as tools. Thus it might be conjectured that Emmy would more appropriately be

compared with a pencil that a composer might use to write a piece of music, in which case it is not the pencil that is creative, but rather the person using the pencil.

Both the monkey and machine exemplars, however, call to mind Jarvie's account of creativity. In designating the creative product as the single measure of creativity (Jarvie 2009, p. 43), Jarvie conveniently side steps the related issues of etiology and intentionality in assessing creativity, a view that manifestly contains an ontological dilemma. Inevitably, such debates attend the issue of artificial intelligence, with claims and counter claims for and against the proposal of intelligent machines. Evidently such claims involve contested views of human consciousness, necessarily involving the continuing discourse of the mind-body problem, or in more recent discourse the mind – or the brain problem. These issues will not be debated here. Rather they are flagged for their place in the creativity literature and for their relevance in raising some of the difficulties that may stand in the way of considering creativity.

Though creativity is evidently a test site for epistemic issues, the important, longstanding, complex and seemingly intractable problems considered in this part of the literature enquiry must be treated with brevity. A current and very comprehensive critique of artificial intelligence in particular and cognitive science in general can be found, however, in Bennett and Hacker's *Philosophical Foundations of Neuroscience* (Bennett & Hacker 2003). Bennett, a distinguished academic neuroscientist and author on consciousness and the history of neuroscience and philosophy of mind, and Hacker, a distinguished philosopher, negotiate an exposition of forensic precision through the hard questions raised by those who have inhabited and continue to inhabit the multiple disciplines of cognitive neuroscience.

Bennett and Hacker's finely argued opposition to the notion of attributing sentient cognition, much less consciousness, to brains, let alone to machines or artificial neural networks, is questioned by Dennett, another philosophical luminary in the field of cognitive science (Bennett et al. 2007). Set out in a monograph, entitled *Neuroscience and Philosophy: Brain, Mind and Intelligence,* these and fellow distinguished cognitive science philosopher, Searle, delineate their differences over conceptions of the mind, consciousness, rational explanation and the brain. Their arguments are situated in the diverse contexts of philosophical, psychological and cognitive neuroscientific accounts (Bennett et al. 2007).

A reading of these apparently dissonant views discloses some continuing features of cognitive neuroscientific discourse. One is the problem of reaching understanding when a common language is yet to emerge in the field of cognitive science. This problem also obtains in creativity discourses. In cognitive science, however, the problem may be exacerbated by the

dominant cultural imperatives of action among the hard scientists, and introspection on the part of the philosophers. The situation is further complicated by the peculiarity that such cultural lines are not demarcated around specific areas of practice in either philosophy, neuroscience or computer science. Bennett and Hacker, for example, plead a classic philosophical case for clarification of terms, though Bennett is in fact a neuroscientist. On the other hand Dennett and Searle, both philosophers, press a more pragmatic case for cognitive neuroscience, supporting the use of language by cognitive scientists that Bennett and Hacker find lacking in rigour, and arguing the case for artificial intelligence, manifestly and perhaps more dramatically, the truly controversial area that lurks beneath and quickens these debates within cognitive science as a whole.

Thus, enabled by the expanding capacity and scope of computer and robotic technology, scholars across a range of fields in the sciences and humanities are focusing their attention on modelling processes that can be gleaned from expanding knowledge of human brain functioning. This includes musicians with an interest in synthesising composition or performance, or both, such as Cope (Cope 2005) and Johnson-Laird (Johnson-Laird 1988). Based on synthesising models gained from studies of human cognition, such scholarship focuses on exploring and exploiting neural networking approaches. In order to do so, a better understanding of these processes in the brain is necessary and this, along with relatively recent advances in empiricist cognitive technologies, such as greatly improved instrumentation for brain imaging, has lent greater urgency to cognitive studies and its attendant debates.

Notwithstanding this growing knowledge it seems likely that many aspects of sentient cognition, motivation, or emotions, for example, will not be scientifically explicated through either anatomical or psychological observation, philosophical reflection, or indeed even through a combined effort by all modes of enquiry. As a consequence, the underpinning epistemic questions continue to be contested with interest and urgency, though hopefully with increasing clarity as a new and common language evolves through more direct interaction available through the current disparate collection of discourses somewhat synthetically assembled under the umbrella of cognitive science.

For the present at least, it is uncertain whether artificial, or machine, intelligence can be said to acquire sufficient knowledge, know how and cognition to demonstrate creativity. If artificial creativity can be credibly attributed to a neural networking system, it will have been achieved through a process of machine learning. In that case it would be proven that creativity can indeed be learned. Artificial intelligence represents a litmus test for creativity because it moves

discussion from the nebulous notion of "soul" as the source of creativity to a possibility of objective clarity that leaves the path open for analytical assessment. At any rate, having attracted the interest of some of the greatest scientific and philosophical minds, the machine creativity discussion is likely to continue shaping reflection on issues surrounding creativity.

5.9.5. Creativity, musicians and music scholars

This section of the literature enquiry investigates accounts of musical creativity from Europe and the Anglophone world. These accounts are largely drawn from reports on the creative process, either by musicians themselves, or their biographers. This includes musicians and commentators of many stripes, composers, performers and scholars, representing different music styles and genres in serious and popular music domains.

Contention over the creative capabilities of artificial agents, or whether creativity is exclusively the province of humankind, has been considered in analysis of the cognitive science literature. Whether artificial intelligence might be judged as an autonomous agent of creativity, or as a tool at the behest of musicians, was considered there. Given the problem of consensus on that issue, artificial musical creativity is deemed tangential to this section of the literature enquiry. Still, if artificial intelligence can match human cognition in the creative dimensions of music composition and performance, new ontological issues will ensue. Human creativity is the focus of this section of enquiry however, and technology, whether acoustic or electronic, is construed here as a musician's tool, rather than a direct agent of creativity.

Another issue of potential relevance is that of individual and group creativity. Group creativity was noted earlier, in relation to jazz principles being applied as a model of group creativity to enhance business outcomes (Kao 1997). Though this suggests group creativity to be superior to individual creativity, such judgement is not relevant here. While it is likely that different creative dimensions are involved in solo and ensemble music making, some aspects of creativity might apply also in both individual and group music making. The focus of this study of musical creativity, however, is on individual, rather than group creativity.

Nevertheless individual musicians work in ensemble settings. These may cross a range of musical styles and genres in art music, world music and popular commercial music. Jazz, as already remarked is, for example, a manifest and much remarked focus of ensemble and improvisational creativity. Musicians across a continuum of diverse music experience may work in solo and ensemble situations. Even the most elite art music soloists routinely work with other

musicians, for example accompanying pianists, or small ensembles, through to symphony orchestras. Popular musicians also work in solo or accompanied solo settings, or in bands.

The Mozart literature

Mozart and his famous biographer, eminent musicologist Alfred Einstein (Einstein 1971), are prominent in the music literature, though Alfred is less famous than his cousin Albert who was born in 1879, one year before Alfred. The Mozart literature is rich in detail on his early musical education with his father Leopold Mozart, a violinist at the Archiepiscopal Court *Kapelle* in Salzburg. Leopold was an experienced teacher who "…in 1744 … was entrusted with the instruction of the boys of the *Kapelle* in violin playing – evidence of the early development of his pedagogic talent – and named court composer" (Einstein 1971, pp. 21-2). Thus we are aware that Leopold Mozart was not only a professional musician, but also an experienced teacher of music to young people. It is not especially surprising then to find that:

> The first signs of musical talent in his son Wolfgang completely changed the direction of Leopold's life and thought. From the moment of their appearance, he lived and thought only in relation to his son (Einstein 1971, p. 23).

From before the age of four Wolfgang was provided with a rich and integrated musical education that included a thorough grounding in contemporary and earlier music. It also included performance and theoretical and composition studies, immersing the young Mozart in the musical culture of his father. To Mozart music was as a mother tongue, learned from the beginning of his life, imbued even from within his mother's womb, as his father practised both performing and composing at home. Being immersed in the work of other composers, Mozart was able to advance his competence and understanding to applying the tools for developing music practice. This implies a pedagogical process in Mozart's developing creative practice that accords with the creativity scholarship noted through the chapter, especially in the work of Bloom (Bloom & Sosniak 1985).

Assessing Mozart's creative development, Einstein refers to the composer's early use of other composers' ideas as "springboards" for his compositions, evidently a notion that corresponds with the combinatorial account of creativity. "But in the last decade of Mozart's life and creative activity he relies in general on his own ideas as springboards" (Einstein 1971, pp. 147-48). Thus, when Mozart entered his last decade, at the age of twenty five, the conscious process of picking up others' ideas as springboards became tacit for Mozart. So, as Dartnall proposes, that which began as deliberately acquired explicit knowledge, eventually become implicit knowledge, or "knowledge-about" through habituation in creative practice (Dartnall 2002).

Even before he had his own musical ideas as springboards the young Mozart was encouraged to experiment with sound and his father would transcribe into written notation the pieces that young Mozart improvised at the keyboard. There are many examples of musical families in which children, though perhaps not achieving the enduring fame of Mozart, excel in creative ability. That these individuals would have flourished without such concentrated attention to their musical education can only be conjectured. In the case of Mozart it is evident that motivation, possibly engendered by Leopold the musician and pedagogue, went hand in hand with intensive musical education, and probably extensive time devoted to well supervised, and therefore purposeful, practice as well as time for musical experimentation, or, invention. Thus Mozart developed an intimate relationship with the musical space in the same way as children come to understand the linguistic space also learned through family and place.

Tchaikovsky: a nineteenth century romantic view

A century after the time of Mozart, letters written by Tchaikovsky (1840-1893) in 1878 describe composition as a three phases process, preparation, inspiration and critical examination (Tchaikovsky 1997, pp. 180-83). In the preparation phase the creator maintains a disposition to work in the belief that "inspiration" will arrive. In the inspiration phase the idea is pursued, hopefully without interruption to break the thread. Finally the inspiration, or idea is honed under the hard light of critical examination. In drawing attention to the need for inspiration to be accompanied by critical examination, Tchaikovsky positions inspiration as a consciously nurtured process (Tchaikovsky 1997, p. 183). Thus Tchaikovsky identifies the conscious phases of the creative process as preparing for the emergence of inspiration and working on the inspiration, an account that Jarvie would support (Jarvie 2009). Though Tchaikovsky does not detail the inspirational dimension of the process, neither does he represent it as merely a mysterious, or passive part of the process.

As elaborated above in some detail, the significance of the creator as a titanic, tortured and inspired individual (Storr 1992), (Cooke 1964) has been generally discarded in recent creativity scholarship. When relying on accounts of artists we must reprise Deliège's caution: "…we know the limits of introspection, and that subjective reports do not tell us the whole story; moreover, the more complex the processes at work, the less amenable they are to the person itself" (Deliège & Richelle 2006). This missive also returns us to Dartnall's observation that with experience and complexity, cognition is likely to become tacit, or, to function off-line (Dartnall 2002).

Furthermore, given that the perception of an artist is informed by the cultural mores of time and place, a cultural disclaimer might also be added to the caution. Thus an artist of the romantic period might be expected to hold a romantic view of creativity. Yet, though such an artist, Tchaikovsky's account of creativity accords only distantly with the Platonic view associated with the "muse" that prevailed in nineteenth century arts discourse. Indeed the metaphorical language of the mystical, which then infused explanations of creative practice, lingered into the twentieth century exemplified, as noted earlier, by Levi-Strauss (Levi-Strauss 1970, p. 18).

Tchaikovsky's account of the creative process in musical composition adds to our understanding of this manifestly creative activity, especially his inclusion of critical examination as a significant element of the creative process. In common with Einstein's perspective of Mozart's creative development, Tchaikovsky's conceptualisation of the creative process implies that musical creativity can be learned. Tchaikovsky gives didactic, if general, advice on the conditions and processes of creativity in musical composition, while Einstein associates Mozart's creative development with the pedagogical ministrations of his father.

Stravinsky: a twentieth century view

Stravinsky (1882-1971) advocates more vigorously for the pursuit of the ideas or inspiration than Tchaikovsky (Stravinsky 1997, pp. 189-94). Not only does Stravinsky emphasise the role of observation in the creative process, but, in addition he identifies the cultural foundation of creativity:

> The faculty of observation and of making something out of what is observed belongs only to the person who at least possesses, in his particular field of endeavour, an acquired culture and an innate taste (Stravinsky 1997, p. 193).

On one hand Stravinsky's notion of an "innate taste" implies aesthetic absolutes. On the other, however, it also conveys a perception of the stylistic rules of the creative activity or process required to produce a creative result that can be understood within a particular aesthetic framework. Literature on this dimension of musical activity has been advanced in the work of music semioticians (Molino 1990), (Nattiez 1990) and (Treitler 1982). Equally, the concept of "innate taste" may be associated with predictability rather than with creativity. In the latter sense, however, the notion of "innate taste" may stand for familiarity with the technical framework in the context of the given time and place of the musician. In more current parlance, detailed earlier, this notion seems to accord with Boden and others' notion of the musician's mastery of the cognitive space (Boden 1996).

Thus, presaging Boden and Sawyer, Stravinsky enunciated the necessity of having the prerequisite skills and knowledge in the domain, and more precisely, in the artist's own cultural milieu, to work creatively in the domain of music. Stravinsky maintained that creation can only be achieved hand in hand with observation and the striving for ideas cannot be forced, just as "…One cannot force oneself to love: but love presupposes understanding, and in order to understand, one must exert one's self" (Stravinsky 1997, p. 192). This seems to touch on Tchaikovsky's identification of "critical examination", or self-evaluation, for creative success. Whether or not observation in Stravinsky's sense accords with Tchaikovsky's call for critical examination, observation must be associated with critical examination.

Much remarked in discussion of creativity, the analogy between creativity and the impossibility of willing oneself to love speaks of the unconscious, a feature so far of little apparent help in this particular discussion, though evoking Jarvie. Moreover, the caution of Deliége and Richelle that the observations of musicians on their own creative practice, though useful, should be regarded with care (Deliège & Richelle 2006) is again prescient.

These accounts from artists evidently support Dartnall's dual theory of mental activity in embodied creative practice (Dartnall 2002) as manifest in musicians. As expert practitioners in creativity, musicians typically hone their skills over years of practice from consciously employed strategies to more implicit, or intuitive, practice. The corollary identified by Deliége and Richelle, as remarked above, is that this renders self-reporting on their creative practice problematic. Nevertheless, centrally important in Stravinsky's statements about musical composition is the significance of the cultural dimension, admitting that creativity is circumscribed not merely by the accepted rules of craft, but at a deeper level by shared cultural understandings. The cultural notion is significant in the communication and acceptance of musical "ideas". This makes it also a significant element of musical discrimination, and therefore on the quality of objectivity in the assessment of music works or activities.

Zappa: an almost contemporary view

Simplifying the notion of shared understandings, Frank Zappa asserts that "anything can be music, but it doesn't become music until someone wills it to be music, and the audience listening to it decides to perceive it as music" (Zappa 1997, p. 195). In this interpretation of music aesthetics and reception, the role of "taste", or discrimination, is given to the audience, certainly a more post modern view than elder composers Tchaikovsky and Stravinsky. In the case of the latter, the prevailing aesthetic, it may be argued, was considered more in terms of unwritten, but "agreed", absolute conventions. Nevertheless the importance of discrimination in

music seems to be accepted as integral to creative practice, at least by musical luminaries cited so far. This is where the musician comes together with the audience. Still, for Zappa, though not generally the experience of the elder composers, the composer and performer are one. This experience of being an artist gave Zappa an embodied experience of audience.

Like Tchaikovsky and Stravinsky, Zappa maintains: "Composition is a process of organisation". He further elaborates on the compositional process as; "…very much like architecture, as long as you can conceptualise what that organisational process is you can be a 'composer' – in any medium you want" (Zappa 1997, p. 195). Thus, according to Zappa, if you can "know" the organisational process, then you can be a composer. Again this perception coincides with Boden's notion that in order to be creative, creators must understand the conceptual space in which they work (Boden 1996). It also supports Dartnall's notion of the significance of "knowledge about" (Dartnall 2002), an idea that finds fertile ground in music, where technical knowledge must meet with the physical in hearing and the imagination to organise, or interpret, the sound material creatively.

One of the difficulties of commenting on how music is conceptualised and organised is that music is perceived in the relatively abstract dimensions of sound and time. Like spoken language, music relies on memory to be understood, to make sense. Nonetheless, Zappa's observation affirms that, as an architect or other artist, a musician must come to know the compositional or interpretive process, that is, the conceptual space, to conceptualise and communicate within the musical domain, again, drawing attention to the question of learning.

Like other informants in this section of the chapter, and like Boden, Zappa is silent on the development of musical skills and how one comes to understand the process of organising sound and the relationship between coming to know its process and assuring, enhancing or advancing skills of creativity that underpin music practice. Nonetheless, he contends that anyone can learn the skills once they understand the conceptual space of the particular music practice in which they work. Evidently, Zappa had no time for the great genius theory.

Boulez: a living musician has the last word

Overwhelmingly, this sample of musicians and musical commentators view creativity in music making as a process. The creative practice of these artists is nurtured and fulfilled in different times and cultural milieus of the European musical tradition. Most identify that creative practice is circumscribed by its cultural setting in time and place. Pierre Boulez, contemporary French conductor and composer, quoted by Andrew Ford, explains it thus: "You are not modern – you

are merely expressing yourself according to the coordinates of your time, and that's not being modern – that's being yourself" (Ford 1993, p. 24). This notion of "being yourself" brings us to the relationship between the individual "voice" of the musician and the shared cultural milieu in which the artistic activity is enacted. Arguably, you're being yourself within the customs and practices of your time and place, and in the case of intensified creative action, probably just enough beyond to still be read. This conceptualisation of creativity being the expression of an individual "voice" resounds once more in analysis of conversations with industry practitioners in the next chapter.

Thus, Boulez says of musicians, "I like people who are not trying to catch the spirit of the time, but who create the spirit of the time" (Ford 1993, p. 28). In melding the concepts of time and culture, Boulez appears to deftly reconcile what writers on creativity commonly describe as a contradiction, or creative tension. This is the tension between the need that an artist has to embrace the received culture, while simultaneously changing, possibly sabotaging, or in calmer terms, perhaps in a sense, recreating that culture. Csikszentmihalyi articulates this apparent paradox thus:

> Generally, creative people are thought to be rebellious and independent. Yet it is impossible to be creative without having first internalised a domain of culture. And a person must believe in the importance of such a domain in order to learn its rules; hence, he or she must be to a certain extent a traditionalist. So it is difficult to see how a person can be creative without being both *traditional and conservative* and at the same time *rebellious and iconoclastic* (Csikszentmihalyi 1996, p. 71).

Incidentally, Csikszentmihalyi finds contradiction to be a pervasive characteristic of his diverse collection of creative practitioner case studies. The above observation is number eight of "ten pairs of apparently antithetical traits that are often both present in such individuals and integrated with each other in a dialectical tension" (Csikszentmihalyi 1996, p. 57). Clearly, however, the technical demands of music are such as to require great discipline. Nevertheless, this aspect of music is routinely underestimated by practitioners themselves, particularly as they are likely to be motivated by the sheer visceral satisfaction they derive through musical activity.

The notion of being "yourself" expressed by Boulez recurs throughout the music literature, flagging individuality as a factor in creativity, which may conceivably imply "difference". Csikszentmihalyi's account of the rebellious and iconoclastic characteristics of the creative practitioner reflects the individualistic sample of his creative practitioner case studies. However, though untested in this sample, individuality might equally apply to group creative music activities. One group has a particular entity, that is to say, as distinct from other groups, just as a culture, or a community has a particular entity as distinct from other cultures or communities.

Literature from the musical domain informs us that creativity is a process, and an act, that draws on an understanding of the dynamic elements of the domain. This understanding may be gained through immersion in the domain. Such immersion is likely to involve teachers, mentors, other practitioners and the musician's own developing work, to incorporate the practices and customs for choosing and applying the elements appropriately. Further, the musician needs to apply those practices and customs in novel ways to organise sound, using individual imagination, inspiration, or "spring boards". For these Western musicians and music scholars, creativity is manifested through personal expression or "being yourself". The concept of being yourself introduces the ontological component of creativity, derived from the interaction of biological, psychological, conscious, unconscious and social factors, in becoming human in a culture and as an individual.

Many sources drawn on in this section of the literature enquiry indicated, either tacitly or implicitly, a connection between learning and creative behaviour. Furthermore, though the Mozart literature is clear on the question of how we can know what has been learned, other sources are less direct. For example, on the question of evaluating creative success, Zappa concludes artfully that the audience will decide.

5.10. Conclusion

A broad range of cultural and theoretical positions has been investigated, through a selection of creativity literature sets, in this enquiry. The guiding questions of the literature enquiry, that is, the creativity questions, are recalled here to focus the conclusion for this chapter. The broad and diverse literature selection of the enquiry does not yield readily, precisely or systematically to summation. Mediating this challenge, the questions serve to distil the findings from the wide-ranging literature sets considered.

5.10.1. To what extent can creativity be described and/or defined?

Enquiry into the literature finds that creativity is viewed from many different perspectives. Thus, it is not surprising to find inconsistency across the literature in accounts of creativity. As creativity is necessarily enacted in "one specific domain, using a certain material, resulting in some type of product", Dielège and Richelle call to "get rid of *creativity* and look at *creative acts*" (Deliège & Richelle 2006, p. 2), a plea supported by Jarvie (Jarvie 2009). This raises a two-fold predicament for defining creativity.

Typically, on one hand, generic definitions of creativity are too vague for useful application to specific domains. Moreover, general definitions have shown a propensity for fostering unhelpfully romanticised notions of creativity. On the other hand, narrow, domain-specific definitions may be too specialised to have relevance outside a particular creative domain. Further, narrow definitions, such as those associated with intelligence, were also likely to favour the more mundane creativity that Boden designates P creativity (Boden 1994). Though the literature enquiry is broad, the subject of this project, popular commercial music, is a relatively discrete domain. Still, general accounts of creativity are considered to ensure the capture of significant work that may apply to creativity in music.

Dielège and Richelle's account of creativity implies the problem of locating creativity as a property not merely of specific domains, but of constituents of specific domains, that is, of persons and created products. Jarvie (Jarvie 2009) and Briskman (Briskman 2009) seek more explicitly to situate creativity in created products. Concomitantly, ethnomusicologists account for creativity in terms of cultures (Blacking 1974, p. 99), (Merriam 1964), (Nettle 1983); combinationists and evolutionists in terms of reforming existing materials and processes (Johnson-Laird 1988) (Simonton 2009), (Dennett 2007), and; psychologists and cognitive scientists, in terms of cognition, (Gardner 1999b), (Pope 2005), and Guilford – as noted by Sternberg and Lubart (Sternberg & Lubart 1999a, p. 7). This constrained selection of examples illustrates some particular ways in which creativity is framed. The complexity of ways in which these different views interconnect is more difficult to portray and only the most evidently useful and relevant accounts can be reviewed here.

Johnson-Laird defines creativity in a tripartite framework; first, the building blocks of the domain, secondly, the creative process, and thirdly, a novel outcome (Johnson-Laird 1988). The last of these is typical of creativity definitions, and is further finessed with the stipulation that the novel outcome must be "judged as striking and not banal" (Johnson-Laird 1988). This rider moves the definition closer to alignment with Boden's H, or historically significant creativity (Boden 1994). Johnson-Laird's definition has some correspondence with Molino's semiological framework (Molino 1990). Suggestive of the Molino scheme, Johnson-Laird identifies the domain, the product, the process and the audience, as sites of creativity, though with a combinatorial view of the creative process. While he does not specify the artist directly, as in Molino's framework, the ontological aspect of the artist is implicit in Johnson-Laird's designation of creative process (Johnson-Laird 1988).

Intentionality creeps subtly into the definition of creativity under the cloak of artificial intelligence. Contention over whether Emmy is creative or not emerges from a discussion of assigning the relative contributions of Cope and Emmy as the creative source of Emmy's music compositions. Fulfilling the above definitions of creativity, Emmy applies the rules of the domain in a constrained stochastic process to produce a novel creative outcome that is convincing enough to satisfy a musically educated audience. If one accepts Jarvie, Briskman and, though less insistent, Dielège and Richelle's demarcation of the created product as the sole criterion in determining creativity, then it is of little consequence whether Cope or Emmy are credited with the creative impetus. The same applies to the pronouncement of Zappa in his assignment of the success of a musical piece to the judgement of the audience, in Molino's scheme, the receiver.

Nonetheless, intentionality emerges quite powerfully in Briskman's modified teleological view of creativity. He correlates creativity with evolutionary theory of "blind variation and selective retention …which allows for the production of novelty but which is *not random"* (Briskman 2009, p. 38). That view embraces a creative process constrained by a specific intention to create something particular. The evolutionary view is compatible with other definitions that, similarly, construe creativity more holistically. For example, enculturation, knowledge and skill in a domain, combined with an intention or action to make something new, would constitute a necessary but not sufficient underpinning for valued, that is, successful creative action. Simonton calls this "a *combinatorial* or *constrained stochastic* process" (Simonton 2009, p. 81). The question of value is implicit in the teleological conception of creativity and ameliorates oversimplification in too literal a borrowing of evolutionary theory as an analogy for musical invention.

5.10.2. How is creativity apprehended, perceived and understood?

Predictably, as evident in investigating definitions and accounts of creativity, the literature uncovers diverse accounts of creativity from manifold viewpoints. Considerable, though typically negative, mention is found of traditional romantic notions of the lone genius. That notion meets with wide censure across creativity discourses. At the other extreme, the popular pragmatic literature finds creativity to be of critical importance to commercial competition. Implicit in that discourse is the elevation of group creativity, as evident in the promotion of jazz practice as the ideal business model (Kao 1997).

Among creativity theorists human creativity is frequently perceived and presented as a paradox (Boden 2004, p. 1), (Csikszentmihalyi 1996, p. 10), (Deleuze & Guattari 1994, p. 199), (Jarvie 2009, p. 43), or at least encompassing significant elements of paradox (Hausman 2009, p. 15), (Briskman 2009, p. 31), and Ulam 1976 in (Dennett 1995, p. 223). It is also associated with danger and chaos (Deleuze & Guattari 1994, p. 202) and (Harré 2009, p. 277). It is not surprising that definitions of creativity are diverse, sometimes equivocal, usually qualified and, consequently, conveyed in various ways across the literature.

Historically, Guilford's work of the mid-twentieth century remains a significant milestone in modern theorising, locating creativity decisively in the scholarly discourse. This marked a new apprehension and perception of creativity as a study warranting scientific attention. Guilford's general creativity tests established a psychometric approach to creativity and released creativity from generic intelligence testing. Concomitantly, his formative theory of divergent and convergent thinking moved to the perception of creativity as a function of cognition. Thus, later cognitive models, such as Gardner's multiple intelligences (Gardner 1983), were foreshadowed. Creativity then came to be a litmus test for existential debates in the disciplines of artificial intelligence and philosophy of mind, two of the burgeoning domains of neuroscience and cognitive science. Nonetheless, as demonstrated in the philosophy of mind literature (Bennett et al. 2007), though these developments represent key milestones, the actual positioning of creativity in the cognitive domain remains contentious.

Creativity is fused explicitly and tacitly with learning in the creativity literature. Boden's conception of the cognitive space, for example, points to knowledge and skill in the relevant domain as a necessary underpinning for creative work (Boden 1994), (Boden 2004). Frameworks articulated by Boden and Molino (Molino 1990) show promise as instruments for the investigation of learning and creativity respectively. However, although identifying specific sites through which these closely related enquiries might be advanced, neither of these high level generic frameworks engages directly with the question of how learning occurs or how creativity is developed.

Firmly opposing romantic conceptions of creativity is Edison's pragmatic dictum, that "...genius is one percent inspiration and ninety nine percent perspiration" (printed in Harpers Monthly September 1932) implying that creativity is an outcome of motivation, learning and practice. Edison's dictum resonates with Csikszentmihalyi's assertion that "…a genuinely creative accomplishment is almost never the result of a sudden insight, a lightbulb flashing on in the dark, but comes after years of hard work" (Csikszentmihalyi 1996, p. 1). Citing constraints

placed on a poet in attempting to write a sonnet, Dennett affirms that view (Dennett 1995, p. 223). Yet, reinforcing Sculthorpe's view, paradoxically, the constraints of rigid discipline may enable, rather than hinder, creativity.

5.10.3. What factors are most likely to be associated in manifesting creativity?

Though the popular literature detailed in the chapter follows different lines, much of it is taken up with a pragmatic approach to the manifestation of creativity. The bulk of the popular literature focuses on creative thinking strategies often through generic mass-produced manuals directed at business and management. Such literature is commonly couched in clichéd terms of "thinking outside the box", for example, De Bono's lateral thinking (De Bono 1973) and 62 creativity exercises (De Bono 2008) and Buzan's mind mapping techniques (Buzan & Buzan 1996). That literature evidently assumes creativity to be an acquirable skill.

Mention of learning is a constant thread in the theoretical creativity literature. Boden finds mastery essential to the manifestation of creativity in a particular domain (Boden 2004). Dartnall considers knowledge, skill and practice to be essential for the manifestation of creativity (Dartnall 2002). Sternberg and O'Hara raise the question of practice, proposing that the quality, intensity and duration of practice in the domain have not received due attention as a factor in manifesting creativity (Sternberg & O'Hara 1999b). This is of interest for musicians who in some areas of performance strive to appear unrehearsed as spontaneity is highly valued.

Motivation is another factor associated with successful learning and creative practice. Considering the literature on both intrinsic and extrinsic motivation in the realisation of creativity in domains such as science, Collins and Amabile find a particularly strong correlation between intrinsic motivation and creative achievement (Collins & Amabile 1999). They hypothesise that motivation may arise from aptitude, or natural interest in the relevant area of practice (Collins & Amabile 1999), thereby placing aptitude, talent, or skill among potential contributory elements for creative practice and consequently, creative success.

Evidently these factors operate in a dynamic web of interrelationship that challenges attempts to reduce them to their component parts. For Bloom, the development of mastery within a domain is correlated not only with practice, but also at a deeper level, with supportive cultural, familial and socio-economic conditions (Bloom et al. 1993). Prosperous, or perhaps more hegemonic environments are most likely to provide encouragement, knowledge, appropriate resources and quality tuition. They are also more likely to have the capacity for, and awareness of, the

significant investment in time and energy required for the essential learning and practice opportunities upon which manifest creativity depends.

5.10.4. To what extent is creativity a gift, a behaviour, a competence, or a skill?

Sternberg and O'Hara concluded from their analysis of work on the practice effect that: "Creative expertise is thus not really an ability at all, but rather a result of deliberate practice in a domain and, particularly, in doing creative work in a domain" (Sternberg & O'Hara 1999b). In the context of this statement ability implies talent rather than skill, though the link between practice and expertise is stated rather than explained. What Sternberg and O'Hara appear to be suggesting is that that creativity is not a question of talent. In this view creativity is a cultivated skill, or at least a skill that can be enhanced through practice in the domain, a position firmly supported by Boden (Boden 2004), (Boden 2009).

Creative talent may be construed as an intrinsic gift of nature, as espoused on the nature side of the nature-nurture debate, and in the romantic view of the inspired genius. Alternatively the meaning of creative talent may be that famously implied in Edison's pragmatic dictum, that creative achievement actually derives from skill developed through motivation, learning and practice. The literature signals wide support for this view by creativity theorists (Csikszentmihalyi 1996), (Collins & Amabile 1999), (Dartnall 2002), (Jarvie 2009), (Gaut 2009) and so on.

5.10.5. To what extent can creativity be learned?

Boden's qualitative description of complex learning prerequisite for creativity provides a generic framework of the "what" of learning that underpins and actualises creative practice. This has relevance for the question of the extent to which creativity can be learned. Thus, Boden proposes that learning is an obligatory underpinning of creativity. That is not to say that Boden's framework contends that creativity can be learned, but rather that learning is prerequisite for creativity. Though addressing the "what" of learning in the broadest sense, Boden's framework does not tackle the "how" of learning. That discussion however is taken up later in this study.

The overwhelming connection that unites learning and creativity casts learning as an integral factor in considering the development of creative skills. That is not to say that creativity is a product of learning, though that may be implied in the literature. Rather, it can be reasonably

asserted that without learning creativity in any transmissible form would be rare indeed. The importance of mastery of a domain as a necessary underpinning of creativity is explicit in Boden's framework, and presumably mastery follows learning. Mastery is evidently attracting growing interest as a factor in creativity (Ericsson 1996), (Nickerson 1999).

As already remarked, the relationship between creativity and learning is close and complex. Each of these important sentient capacities is multifaceted and interlinked in a dynamic web of explicit and tacit elements. These include elements touched upon above as dimensions of creativity. Such elements as environment, motivation, practice, availability of time and physical and intellectual resources, apply equally to learning and to creativity.

In construing creativity as a skill that can be developed, Gaut (Gaut 2009, p. 94) implies that creativity can be learnt. Her thesis is pertinent to the present question, firstly because like Boden she associates creativity with learning, secondly she links creativity with skill, and thirdly like Jarvie (Jarvie 2009), Briskman (Briskman 2009) and Simonton (Simonton 2009), she supports a teleological account of creativity. Like Simonton (Simonton 2009, p. 76), her account of creativity extends to considering optimal environmental factors for developing creativity, though she presses her claim that creativity is a skill that can be learned more firmly than Simonton's speculation on the matter. Gaut cites the continuing success of De Bono and Buzan in marketing products comprising creativity strategies as evincing a wide belief that creativity can be learnt.

Musicians identified in this enquiry associated creativity with knowledge of relevant musical conventions. Still, a grasp of the conventions might be a necessary, though not sufficient, basis for exhibiting creativity. These diverse musicians' accounts accord with Boden's premise of conceptual space (Boden 1996), and Dartnall's notion of the significance of knowledge about (Dartnall 2002). Such notions find fertile ground in music, where technical knowledge joins the physical, in hearing, and the imagination, in organising, or interpreting, the sound material creatively. To that extent at least, creativity is a product of learning.

The same association between learning and creativity is evident in Tchaikovsky's report of his own compositional process, and Einstein's perspective of Mozart's creative development. Both imply, from different perspectives, that musical creativity can be learned. Moreover, these accounts afford deeper insight into the "how" of learning, expanding accounts of theorists such as Boden or musicians such as Zappa. Tchaikovsky attends to the "how" of learning with didactic, if general, advice on the conditions and processes of creative action. Einstein outlines the development of Mozart's creative skills through the pedagogical ministrations of his father.

Thus, some consensus may be evinced that musical creativity can be learnt. Notwithstanding advice from Tchaikovsky and Einstein as to "how" artists come to "know", descriptions of how creativity may be acquired are both general and equivocal.

5.10.6. How can we know that it has been learned?

This question goes to the issue of assessment. Notwithstanding a large body of research, Sternberg and O'Hara found that consensus on the issue of assessing creativity remains elusive (Sternberg & O'Hara 1999b). Thus, the answer to this question remains equivocal, especially concerning measuring creativity in a general sense. Putting aside the possibility that the significance of creativity for popular commercial music may be moot, the answer might be derived from the critiques of peers or the popular press. Or it may be measured in financial returns from the sale of music and music events.

As already noted, Zappa concluded artfully that the audience will decide, a comment of palpable relevance to popular commercial music. This assignment of judgement to the audience contrasts with the traditions of elder composers Tchaikovsky and Stravinsky, whose aesthetic was upheld more in terms of unwritten, but "agreed" absolute conventions. Yet, the issue remains as to the significance of creativity, relative to other performance dimensions, in forming judgements about music.

In any case, the importance of discrimination appears integral to creative practice and this is where the musician comes together with the audience. For Zappa, certainly more than for Tchaikovsky and Stravinsky, the music and the musician can be one and the same, thus providing the musician an embodied experience of audience. It must be said, however, that popular commercial musicians, such as Zappa, do not assert the primacy of creativity, or even of "inspiration" in their work to the degree evident in the accounts of the elder composers.

5.10.7. What is the significance of creativity for "productive practice / success" in the context of commercial music markets?

Consideration of the significance of creativity in popular commercial music may require attention. It is a question that is addressed more closely in the next chapter, in conversations with industry practitioners. Nevertheless, already clear at what might be termed the negative end, is Adorno's bleak view that music "is perceived purely as back-ground. If nobody can any longer speak, then certainly nobody can any longer listen". Moreover, Adorno has deemed popular commercial music "the lower music" on which he further expands: "If atomized

listening means progressive decomposition for the higher music, there is nothing more to decompose in the lower music" (Adorno 1991, p. 49). This extreme account finds no place for creativity in popular commercial music, or even for serious music. Yet, Adorno's cynicism aside, this study does assume, for the time being at least, that creativity is likely to have a place in popular commercial music.

While creativity is not overtly situated in Zappa's account, it might be taken to be tacitly embedded in his music practice. This is particularly so given that his work is renowned for its distinctive, diverse, and therefore, creative quality. The individual voice as a component of creativity in popular music practice has been noted in the present chapter. Closer attention to that aspect of creativity is found in the next chapter, through information gleaned from conversations with industry practitioners.

5.10.8. Finally

The literature enquiry evokes the cultural and conceptual complexity of creativity. Specific creativity questions have guided the enquiry to distil information of greatest relevance to the research. Using this process significant accounts of creativity from the literature have been identified and appraised to later inform specific evaluation of CBT for creativity in music.

The literature draws associations between creativity and access to resources, experience and practice in a domain, motivation, risk taking, intentionality and continuing evaluation of the creative process and products. Consideration of the association between creativity and learning is evident in both the popular and scholarly literatures. This aspect of creativity was especially illustrated in the evidence based literature of artificial intelligence.

6. The music industry and conversations on creativity

The creativity enquiry in this chapter involves a series of conversations with practitioners from different areas of the popular commercial music industry. Informants include performers, composers, managers and teachers currently working in the popular music industry, most of whom work across more than one of these areas of practice.

Building upon the understanding of creativity garnered from the literature enquiry, this enquiry captures practitioners' insights into creativity. Thus, a functional understanding of creativity is contextualised to the music industry. As in the literature enquiry, the creativity questions are used to distil findings that will inform the case study analysis.

Turning from the broader creativity focus of the literature enquiry in the previous chapter, this chapter focuses on musical creativity in the vocational context. Thus, creativity is considered here from the perspective of the music industry, or more correctly, perhaps, music industries. Some inter-related elements underpin this enquiry, notably, an understanding of the music industry, or industries, and the place of creativity and the development of creative skills therein.

The case study, a purposive sample of eight Units of Competency from the *Music Industry Training Package 01,* is directly relevant to the present enquiry. Items in that sample encompass creative skills for music industry practice. These Units of Competency provide benchmarks for the assessment of creative skills and readily serve this proof of concept investigation into the fitness of CBT for the learning and assessment of creativity.

As the first phase of the *Music Industry Training Package 01* had time to settle, between 2003 and 2005, individual conversations were undertaken with various practitioners about creativity in their own practice. Vocational teachers, artists and music managers were involved in the conversations which comprise a suite of virtual micro case studies from the music industry. Transcripts of the six conversations with industry practitioners are at **Appendix B**. These conversations are the subject of analysis in this chapter.

As reflected in the transcripts of those conversations, whatever their acquaintance or level of experience with the *Music Industry Training Package 01*, participants did not, overall, respond to the one specific question on the Units of Competency submitted for their consideration. Thus, though their experience did not appear to affect their capacity to critique CBT, neither did it incline them to comment directly on the Units of Competency. The conversations drew on a rich source of first hand information on musical creativity in practice. That information is probed in this chapter, while keeping in mind the creativity questions.

6.1. Music

Based in the cultural industries, music has traditionally been divided into high art (classical) and commercial (popular) music. As elaborated in Chapter Three, until very recently, formal music education has been confined to the high art, and therefore scholarly, margin of the music continuum. "Classical music", like "popular music" and other music, for example world, indigenous, folk, jazz and so on, is commercial in the sense that it involves the production and sale of recorded music and live performances. Nonetheless "classical" music occupies a significantly more limited market segment than does "popular" music. Popular music creation and production is more firmly situated in the "commercial" realm where, notwithstanding some alternative music exceptions, it casts its appeal to the broadest possible markets to maximise profits.

The classical music culture of Western society, taken here to mean Europe and Anglophone nations, is based on a written tradition, making it on the whole well suited to scholarly pursuits. Still, some equivocation occurs in the academy, especially about music performance, an issue that was given detailed consideration in Chapter Three. Popular and folk music cultures, on the other hand are built on oral and aural modes of transmission. For example, jazz, which underpins the development of popular Western music, is primarily learned through doing. That is through listening, playing, experimenting and improvising.

It is worth noting nonetheless that as in spoken languages, so in music, theory follows practice. Consequently, as with spoken language, the practice of music usually begins with doing:

> …you get better at playing shows through playing shows. And you get better at making records through making records (Conversation 6, p. 271).

As a discipline, music provides a distinctive example in the debate concerning the perceived "vocationalisation" of education. As explained in Chapter Three, classical music education has traditionally been treated as academic, having a strong scholarly presence, including reading and writing musical notation and direct pathways, from school to university studies. Popular music on the other hand has only recently emerged as a discipline for serious study in higher education institutions. Traditionally, it has not assumed a pathway to higher learning, though, again as detailed in Chapter Three, this has changed in recent years.

Partly in response to the lacunae in popular music education, and also being concerned with vocational or employment related training, the VET sector has in recent years absorbed popular commercial music training into its remit. This arrangement may suggest that the significance of creativity for the music industry is not presumed and, consequently perhaps, in a context where

music is a mass commercial product, it cannot be assumed that creativity is even an essential element. Certainly, as noted in the previous chapter, the significance, even presence, of creativity in popular commercial music is contested (Adorno 1991) and (Sawyer 2006). Moreover, even if creativity is a significant factor, it is but one of a number of skills required to produce a commercially successful, that is profitable, music product.

In this chapter, creativity is primarily considered in relation to the production of commercial music. Moreover, the creativity focus is on the musical, that is the sound dimension of the product. This study is not concerned with creativity in the presentation of acts, makeup, costumes, lighting and so on, though that may be a conspicuous site of creativity.

6.2. Music markets

Comparisons between the production and marketing of music products and other types of products are not easily drawn. Manifestly, marketing requirements and contexts for various types of products are formed within different industrial and cultural milieus. Manufactured products, cars for example, though subject to fashion and innovation, as well as the complexities of design and engineering, enjoy a relatively simple pattern of production and distribution.

On the other hand, for example, food has a more complex distribution environment. Food may be sold as processed, fresh or served as take away or in a variety of restaurant settings. While replication may be a valued factor in some market segments, McDonalds for example, in others aspects of food production and presentation require the application of creative skills and originality. Music is a cultural industry whose product production and distribution like that of food, is directly based on complex cultural factors. It is both an art and a commercial product. Thus, music is likely to present a range of products in which the value of creativity, or originality falls along a continuum, analogous, perhaps, to the food industry where products range from fine food to the fast food.

For many industries, while marketing flair may be a success factor in profit maximisation, quality control and market success may also be based on achieving exact replication, or on production line processes, or on the application of technical advances in production and distribution. Yet, for music, quality is commonly perceived to be associated with creativity, innovation and originality in its composition, performance and presentation.

A more pragmatic predictor of commercial success might be, originality within the scope of market acceptability of targeted market segments. Still, those market segments are complex and

diverse. Though often disconnected, equally they may be connected in unexpected ways. Excitement over, or even acceptance of perceived creativity, depends on the cultural context of demographic or market segments. In some respects the music industry can be compared with the fashion industry. Yet, the currency of music and its reliance on quickly changing trends lends it an even shorter shelf life, or turn-around, than fashion, which is at least aligned to seasonal changes. Moreover, for music, the world of downloading digital media makes the race ever more lively and complex, a theme of critical interest to music marketing, though not especially to this study.

6.3. Music industry

Essentially, music is an industry like other industries, aiming to maximise profits through competitive interaction to forge markets at all levels from local to global. It is not the intention of this study to present a comprehensive study of the music industry. Rather, demarcation of the music industry, or those parts of the music industry pertaining to the case study, draws on relevant statements of purpose contained in the music package itself. The *Music Industry Training Package 01* describes the Australian music industry thus:

> The Australian music industry is a vital and energetic industry, which pervades the lives of most Australians. Chaotic, unregulated, creative, fragmented and diverse, the industry covers many different genres, with widescale participation across Australia ... from small and isolated communities to major metropolitan centres.
>
> Music is both an industry and an artform, meeting cultural and recreational needs while also offering major employment opportunities across many sectors: recording, publishing, retail, music business, entertainment, radio, television, film, video, advertising, computer software, multimedia, teaching, and, of course, performance. 345,700 people are involved in music across Australia. Of these, 276,100 work as live performers and 96,450 musicians receive payment for their work.
>
> Work in the industry, particularly in performance, is primarily casual, contract, freelance and self-employed. Musicians must frequently generate their own work and juggle several jobs simultaneously (CREATE Australia 2001).

While this is not a comprehensive panorama of the industry, it draws the context in which the *Music Industry Training Package 01* was conceived. It is not the purpose of this study to account for the employment picture of the industry. Rather it is to consider the significance of creative skills for people aspiring to be creative practitioners in the industry.

6.4. Conversations with music industry practitioners

Adding to the investigation of the creativity literature, this more direct enquiry into creativity drew on the perspective of the music industry through individual conversations with a representative group of industry practitioners. The aim of these loosely structured conversations

was to gain a closer understanding of the music industry and the role of creativity in the work of practitioners and educators in the field of popular commercial music. Music industry practitioners were invited to discuss the role of creativity, and its significance in the music industry, from the perspective of their own professional practice. Of the ten people invited, six agreed to participate in the conversations.

They included a very successful and highly respected commercial composer, also a proprietor of a successful recording studio, two performers, one of whom is also a university academic, an artists' manager, a TAFE Head Music Teacher, a CEO of a private RTO offering courses and VET qualifications in music. Demonstrating the complexity and richness of the industry, each of the participants crossed over a number of areas in the music industry.

Three of these had been members of the *Music Industry Training Package 01* Steering Committee and in that capacity had provided advice on aspects of its development. Of those three participants, two VET sector representatives, one from TAFE and one private provider, were critical of the value of the CBT system for music education. Nevertheless, they both agreed to be interviewed for this research, giving some balance to the information collected from the conversations. However, they did not comment directly, or at least in any detail, on the Units of Competency provided for their comment. Though the broad industry roles of participating practitioners are specified, their identities remain confidential. The principal value of the conversations is the first hand insight revealed from an embodied understanding of musical creativity by successful, working music industry practitioners.

The conversations took place from 2003 to 2005. This was after the *Music Industry Training Package 01* had been mandated nationally for implementation by all Registered Training Organisations (RTOs) registered to offer music qualifications. Thus, time had elapsed for the package to settle with RTOs. Given the controversial nature of CBT, particularly among educators, who have a palpably crucial stake in mandates affecting curriculum, the names of all six participants remain confidential. This was to ensure that informants would not be unduly constrained in their comments, though there had been much open and robust discussion during the development stages of the *Music Industry Training Package 01*.

Each of the conversations was conducted separately, at the convenience of participants, in their homes or work places. Conversations were recorded with the permission of each participant. All of the participants were quite relaxed and evidently eager to talk about creativity from their professional experience. Transcriptions from those recordings are at **Appendix B**. Unsurprisingly perhaps, most informants spoke spontaneously, preferring not to study the

questions before the conversations took place. All participants have complex and busy schedules and most spoke with minimal prompting. All understood that the questions were contextualised for popular commercial music.

6.4.1. Focus Questions

The focus questions, listed in Chapter Four, were used as a framing device. Copies of the questions and the sampled eight Units of Competency were provided to all practitioners invited to participate in conversations. Derived from the creativity questions, these open ended questions were formulated to cast a broad framework in which to capture first hand insights from music industry practitioners. They were designed to encourage dialogue about how practitioners developed their creative skills, or where relevant those of their employees, clients or students. Questions were also framed to elicit any observations that informants could contribute regarding the most likely success factors for facilitating the development of creative skills in themselves, or others, either as practising musicians in the industry, or as aspiring musicians.

Dialogue in the conversations was not fixed on the Training Package, however. Rather, the notion and significance of creativity was explored with practitioners. Thus, insights were captured from their first hand knowledge and experience of creativity in the creation and sale of music products. Attention was also given to questions about learning and creativity. This was to ascertain the level of correlation with findings from the broad creativity literature considered in Chapter Five. Attention was also given to the assessment of creativity.

Thus questions were to stimulate dialogue around the role of creativity in the context of popular commercial music and the personal and professional experience of the informants in developing their own creative skills. All questions were optional and open ended. The researcher used the questions flexibly to encourage spontaneity in the dialogue. Certainly, all of the participants were highly articulate and very keen to turn their attention to most of the questions being put to them. Hence the questions were not applied uniformly, but rather according to the character of each interaction.

6.5. Disengagement with Units of Competency

Only one of the focus questions related directly to the selected Units of Competency. For this participants were also provided with copies of the eight Units of Competency selected from the *Music Industry Training Package 01.* This group of Units of Competency forms the purposive

sample of this case study, those that most embody creativity. These Units of Competency are at **Appendix C**. The creativity component of the selected items for consideration in the study is evident to some degree from their titles and descriptions, listed below in the chapter.

The potential problem in requiring practising industry musicians to address the Units of Competency in any detail was considered in formulating and adapting a functional approach. Units of Competency are highly structured, technical and detailed assessment instruments. Experience in developing the *Music Industry Training Package 01* through comprehensive national consultation, encompassing focus groups and other forums, allowed the researcher some insight into the problems of consulting with industry practitioners on such specialised documents. For the purposes of this study it was important to avoid an unreasonable time burden for informants.

Essentially, given that knowledge of these items is not core to the work of music practitioners, time expended in explaining them to each informant was considered unjustified. Though informants with an education background did offer general comments on Training Packages and, in one case referred to parts of the content of some Units of Competency, they did not engage deeply. In any case, findings of both creativity enquiries, that is the literature and industry enquiries, are correlated with the Training Package creativity items of the Units of Competency in Chapter Seven.

6.6. Units of Competency selected for creativity

The purposive sample of eight Units of Competency forms the case study. These Units of Competency were selected for their relevance to creativity. The names and descriptors of the selected Units of Competency are listed here:

6.6.1. Create original music

This unit covers the technical, expressive, experimental and music knowledge and skills required to produce original music and to set it down appropriately for use in performance.

6.6.2. Provide tuition for composition

This unit describes competencies required to provide tuition in composition privately to individuals, or groups of less than five, in a private home studio or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The

skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

6.6.3. Perform music as soloist

This unit covers the technical, expressive, communication and stage skills required to perform for an audience as a soloist.

6.6.4. Provide instrumental/vocal tuition

This unit describes competencies required to teach instruments, including voice, privately to individuals, or groups of less than five, in a private home studio, or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

6.6.5. Develop and practise improvisation

This unit covers the acquisition of skills in using relevant harmonic elements, materials and protocols to demonstrate creative improvisation, in music performance.

6.6.6. Perform improvisation for audience

This unit describes the aural, musicological and creative competencies required to perform improvisation for an audience as part of an ensemble.

6.6.7. Develop and implement sound production for a recording

This unit describes the technical, artistic, expressive, communication and sound design competencies required for producing a recording.

6.6.8. Develop self as artist

This unit covers the development of the technical, interpretive and expressive skills required to create, perform and/or direct music to a professional standard. It also deals with communicating effectively and working strategically and cooperatively to achieve planned artistic outcomes.

6.7. Insights of contemporary music practitioners on creativity

Some areas of convergence emerged across the conversations. As explained later, some of these corresponded with the findings of the literature enquiry, and with the creativity questions that

framed the literature enquiry. The leading question asked of all participants was how they understood creativity in music. Convergence notwithstanding, insights from the conversations reflected the diversity of practitioners in different areas of commercial music practice.

Informants were not, on the whole, acquainted with each other, at least not at the time of the conversations. Nor was this activity part of their normal business. Even those who had spent a few hours together on the Steering Committee during the development of the *Music Industry Training Package 01* had only the briefest contact, and no continuing relationships subsequent to the release of the *Music Industry Training Package 01* in 2001. Each conversation was conducted individually and in the researcher's experience of the informants it can reasonably be assumed that they did not discuss the questions with each other. Hence each was a personal view.

Though the rationale for framing the questions so broadly has been explained here, it was not explained in the preamble to the conversations either to the informant whose critical response is quoted below, or to any of the other informants. In the very first conversation the participant criticised the efficacy of the initial question: "What is creativity in music and what is its importance?" The same informant succinctly articulated the dilemma of the confounding and slippery notion of creativity:

> Well firstly I think it's a most unfair question…like asking who is God and what is his manifestation? So you're not going to get the answers that are going to be the most useful – except for the personal ones. And so then it just comes down to who you happen to be interviewing (Conversation 1, p. 261).

This opening response in the first conversation to the request to define creativity questions the method being used by the researcher to seek information from industry practitioners. The basis for the objection is valid, given the information available to the informant. At the same time the response articulates the enormity of the problem embedded in the question, supporting the statement of the same problem made early in the creativity literature enquiry. There it was noted that the creativity literature does not lend itself to neat divisions. Indeed, the diversity of views reflected in the literature exemplified the problem of defining, even describing, creativity. Hence questions seeking to gain perceptions about "what is creativity?" were anticipated to be the most challenging of the conversation framing questions.

No further critical objection to the questions was raised in subsequent conversations. The rich perspectives and accounts disclosed by participants evidently justified the use of an open conversational approach. Indeed this relatively unforced conversational style allowed a degree of spontaneity sufficient to capture personal insights, rather than "answers". Hence, the claim

that this method would elicit only the most personal responses, (Conversation 1, p. 261) proved prescient. The conversations disclosed valuable insights for the research from the lived experience of the informants whose contributions provided a rich resource for the study.

6.7.1. Music industry practitioners define creativity

Notwithstanding the assertion of the problem of defining creativity, the first informant offered the following as a definition of musical creativity: "I do think that creativity in music is one's personal input into the music" (Conversation 1, p. 261). This emphatically semiological perspective of creativity calls to mind the Molino model of artistic production, considered in the previous chapter. Specifically it evokes the poietic site of Molino's tripartite model; that is the section of the model highlighting the individuality, or uniqueness, of the originator of a work (Molino 1990). Not to draw too long a bow, the subjective placing, or individual aspect of creativity evident in the view of another informant further evokes the semiological, or expressive stance, albeit in more pedestrian terms: "It's usually about expressing their emotions or feelings on something, different subjects" (Conversation 2, p. 271).

While the Molino framework is useful for containing discussion about creativity, evidently the receiver, or audience component of the model also forms part of the ontological and semiological dimensions at both individual and collective levels. Yet, though it might be obvious that semiological exigencies are not restricted to the originator, in Molino's semiological model, nevertheless, the focus here rests on the creativity of the originator.

Another perception of creativity is expressed as: "Freedom to experiment…to try different things and present them to the public" (Conversation 2, p. 271). Yet another is articulated as "the ability to put things together in a way that they haven't been put together before, that will have a musically sensible result" (Conversation 3, p. 275). Notions of putting things to the public, and of having a musically sensible result herald the communicative dimension of creativity. Additionally, both of these perceptions imply constraints in the notion of creativity. Presenting "to the public" and the idea of "a musically sensible result" together admit the function of an audience in the creative project. Here the discussion of creativity moves to another component of the Molino tripartite model, the significance of the receiver, or audience. For popular commercial music the disposition of the audience inevitably imposes limits on, or at least directions for, creativity.

On that note, recalling the literature, it can be argued that the audience completes the creative endeavour, in the sense proposed by Frank Zappa that "anything can be music, but it doesn't

become music until someone wills it to be music, and the audience listening to it decides to perceive it as music" (Zappa 1997).

On the question of the importance of creativity for the popular commercial music industry the response was very positive. While participants distinguished different types, or modes, of creativity, detailed in the following section, there was a unanimous and often emphatic view that creativity is a necessary component of popular commercial music: "Logically creativity is fundamental to all of it because without that none of that (the music industry) would exist" (Conversation 2, p. 271).

There was also a view that as a strong cultural value in "our society" creativity is inextricably fixed in popular commercial music:

> …its obvious to me at least, that originality, or creativity is central to all of these [composing, performance, musical direction, studio production]. I'm almost trying to think where that would not be the case. Because its so central and of great importance within our cultural value system (Conversation 1, p. 264).

6.7.2. Types or modes of creativity

Because distinguishing different types of creativity opened up a Pandora's box the following summation seems an appropriate way to begin this section on what practitioners considered to be different types, modes or qualities of creativity:

> To me creativity is obviously subjective and I can't help but feel that what's creative to one person is not creative to another. And I'm also assuming that the opposite to creative is…derivative (Conversation 5, p. 287).

This discussion links with other areas, for example with the previous section on creativity and culture and with later discussion about convergent and divergent processes. Nonetheless there is evidence of conflicted views about the quality of creativity. This is expressed in discriminating between different types of creativity. For example, there is discrimination between what one informant describes as "self expression" and another as "stimulation of the potential buyer's enjoyment of the music" (Conversation 2, p. 271). Still, it is argued that a marketing jingle may emerge out of a very creative process (Conversation 2, p. 271).

In attempting to convey the complex range of contexts in which creativity might be expressed, informants were moved to speak about different types of creativity. A number of participants expressed surprise to find hitherto unrecognised biases emerging in conversations as they attempted to delineate different types of creativity. Examples of these dialogues encompassed, for example, discriminating between spontaneous, or inner creativity and manufactured creativity, thus, "...this is the market – now we will create something for that market…as

opposed to an instantaneous, or inner creativity" (Conversation 4, p. 280), or derivative McDonalds creativity (Conversation 5, p. 292), or inorganic manufactured and capitalist forms of creativity, redolent of Adorno, as opposed to the organic creativity that "generates things, a sense of authenticity attached to it perhaps" (Conversation 6, p. 300). The latter was not intended as a negative comparison, but rather, "…just a different way of going about it" (Conversation 6, p. 300).

Unsurprisingly, given that participants were conversing spontaneously, attempts to distinguish different types of creativity invariably began with general statements at a relatively superficial level. Yet, typically, participants moved to self-edit, subsequently stepping up to a more nuanced and fulsome account, taking in more of the complexities of creative processes required for different purposes. Nonetheless, on the whole, discussion of different types and qualities of creativity tended to be marked by contradiction and occasional back-pedalling.

The idea of accidental, or perhaps gratuitous creativity came up in some conversations. One example was where artists may not be fluent with their expressive tools, or not being in control of a strong technique, for example an instrumental technique (Conversation 1, p. 261), or sound production techniques (Conversation 2, p. 271). In the case of the latter it was conjectured that:

> Without that rock music could hardly have been generated. One could argue that technically speaking, if you were going for a quality sound, what we call quality sound, and that is one that doesn't have square waves – distortions – if that were the case then contemporary music [meaning popular contemporary music] would not exist, because you'd never have had distorted guitar (Conversation 2, p. 273).

Another conversation took a similar turn in describing a kind of gratuitous creativity that might arise in lieu of appropriately developed technical skills:

> …a lot of people might develop the creative side of their natures too when other things don't work. For example, if I'm not able to play the piano with the technique that's going to replicate the model, and I want to play the piano, then I'm going to have to work out some other way to do it – which is my own personal input. And I think that a lot of creativity is the result of not being able to do something else.
>
> Solving a problem in a different way. I can't play the piano the way I'm taught so therefore I'll just have to work it out. And our cultural values are that this is applauded. This kind of initiative, using a different tool for getting there, or something like that. It can be very exciting – we find it very exciting – alternatives. So for me creativity is divergent. Adhering to a technical standard is convergent. And I think that a lot of people don't have the skill, aptitude, concentration, talent or whatever to be totally convergent and therefore they use other skills to solve the problem, as it were (Conversation 1, p. 264).

In yet another instance the availability of new technology is perceived to have enabled artists to bypass the traditional technical training in the instrumental tools and musical language. Further, evocative of Adorno's view of contemporary popular music, the tag "disposable" music denotes a possibly pejorative stance:

> A great deal of the disposable music that exists is there not because of the skill of the individual in operating in the language, but the skill of the individual to mess around with technology. And that started happening when music became more accessible and computers came around and synthesizers…and suddenly it gave power to a much wider audience to create music. These guys and girls started creating music without the skills and without the language understanding of those that had gone before them.
>
> But suddenly it didn't matter. They were making mistakes musically… However with all these mistakes it is judged as wonderfully creative to the audience that is listening to it…the creation of drum machines and synthesisers and computer sequencers … allowed people that otherwise would not have had these skills to have them (Conversation 5, p. 291).

Recording studio producers were cited as another tangible example of distinctively different types of creativity. This tended to be expressed in different terms of achieving a particular sound. This could be, either to meet the demands of the employer, or to put an individual stamp on the work, or whether or not in a more compliant role, to optimise the work of artists being recorded. A group of eminent English producers Mike Stock, Matt Aitken and Pete Waterman who worked together in the 1980s were mentioned. Working on early Kylie Minogue albums, and with the then popular girl group *Bananarama,* these studio producers created a distinctive sound. As a result of this success they were commissioned by record companies to reproduce that sound:

> And so if you go back to those days what you find is that a lot of the pop acts sounded the same. You have the same arrangements, the same rhythm fields; the same sounds, the same techniques used to create those sounds (Conversation 2, p. 274).

Other studio producers are noted for taking different creative approaches. Peter Gabriel, for example, is said to be at the other extreme, achieving totally different sounds with each artist: "There is a Peter Gabriel sound, but its different with each artist. His work has less producer stamp on it" (Conversation 2, p. 271). Even more wide-ranging is eminent Australian studio producer Mark Lang, who has produced artists from widely different styles, such as heavy rock *ACDC* to country style Sharnia Twain, and indie rock band *Skipping Girl Vinegar*:

> …and those are poles apart. I think there are little things in there that are definitely Mark Lang – little arrangements – but it's the artist. So the stamp of Mark Lang is not evident but that's not to say that he hasn't had a big influence, it's just to say that his way of doing it is to ensure that he's bringing you the artist. He's a facilitator (Conversation 2, p. 274).

The last comment brings to mind remarks about teaching for creativity, namely that the task is one of facilitation. Further, these accounts touch on the role of fashion in the music industry. Just as a fashion designer might establish a style that enjoys a period of popularity and commercial success, so too musicians and other creative workers must constantly bring the new to fruition, as to endure in the industry requires a constant stream of new ideas. Qualitative degrees of difference of ideas within those streams are likely to vary according to the particular

style of the music and its audience. It would be a very brave call to propose comparisons concerning levels of creativity to particular genres, or styles of commercial music.

6.7.3. Negotiating boundaries of musical creativity

The association of culture with musical creativity was explored comprehensively in the literature enquiry in Chapter Five. An aspect of that cultural influence is reflected in the observation of a participant that creativity is a cultural construct that attracts high value in our society (Conversation 1, p. 263). This implies that beyond Western culture creativity may hold less value, a discussion that resides in a lively field of scholarship beyond the scope the present discussion. Of greater interest is the conjunction of this insight with the third site of Molino's model, recalling that as the site of reception of the work, or audience (Molino 1990). This moves us away from the related discussion of the cult of creativity, elaborated in the literature enquiry, to the potential value that audiences, or markets, place upon creativity within the context of this case study in the popular commercial music industry.

In considering the importance of creativity, participants were generally of the view that creativity is an essential factor in the music industry, or industries. This was most clearly stated thus: "Logically creativity is fundamental to all of it because without that (Creativity Australia) none of that [the music industry] would exist" (Conversation p. 271). This categorical comment, however, is qualified later in the chapter in considering the underlying and associated issue of qualitatively different types, or modes, of creativity.

The implications of popular culture on creativity and the general cult of creativity were considered in reviewing the creativity literature. Though the artistic boundaries imposed on creativity and individuality by popular culture have relevance in this discussion, popular culture is an area more properly sited in cultural studies scholarship. Similarly consideration of the globalised, and demonstrably Americanised, culture that forms a context for the Australian music industry, is of necessity barred from deeper investigation though it inevitably contributes in quite specific ways to the "cultural constraints" of creativity. Nonetheless these complex issues, elaborated in Chapter Five, are noted for their relevance as possible constraints on creativity. As remarked already, practitioners were inclined to judgement when turning their attention to the application of creativity in different cultural contexts. Still, cultural value judgements and philosophical homilies of the type explored in the literature review – Adorno for example – have less immediate relevance in this chapter, situated as it is in the practical world of popular commercial music practitioners, for whom music is a lived experience.

Commercial popular culture forms the macro culture for the commercial arts in Australia. As articulated by the informant quoted below, for music that macro level becomes disaggregated into myriad micro music cultures, communities and/or industries:

> And you say the music industry and I refuse to say music industry but music industries because they're not convergent and there's not one industry. It's a splatter. That neat statement doesn't describe what there is but just a dot – of the splatter (Conversation 1, p. 267).

Given the complexity of the industry, or industries, thus described, it is neither possible, nor obligatory, to examine particular sections of the music industry, except to instance dimensions of creativity. Rather, the task is to understand the production of the creative product, the trace in Molino's terms (Molino 1990), of creative workers in the Australian popular commercial music industry from a more general standpoint. The context for consideration of creativity in these conversations is for either aspiring, or beginning, professionals across the popular commercial spectrum of the music industry. In terms of the Training Package these may also be practitioners aiming to undertake assessment through an approved recognition process as a means to obtain a qualification from those set out in the Training Package.

The observation that creativity has a high value in our society flags the concomitant notion of individuality, a dimension implicit in the remark about creativity being "one's personal input into the music" (Conversation 1, p. 261). As already indicated, in considering the definitions of creativity emerging from the conversations, the value of individuality is clear in almost every definition of creativity posited. Also evident is that, like creativity, individuality is a relative value, though one of overwhelming significance in the Western tradition.

Nevertheless, an explicit boundary, or area of constraint on creativity and individuality, emerges for musicians in a number of situations. Inevitably, aspects of convergence and divergence emerge out of the fitness for purpose of different musical processes, or tasks. This is likely to apply for specialist practitioners, or for those who undertake a range of different musical roles. Accordingly, in some situations a musician has free rein to express individuality, while in others compliance with the creative authority, or agency of others, is essential:

> There'll be times in music when you do not, absolutely do not, put your own individual input into the music – when you might be supporting somebody else's input into the music. So I think its most important to acknowledge that there'll be times when we're standing in line and saluting and there'll be times when we're using our own initiative (Conversation 1, p. 262).

Less obvious boundaries arise from cultural factors though. As indicated in Chapter Five, these are likely to be complex and multifaceted. Fashion, or marketing, for example may be perceived

either as barriers, or as drivers for creativity, or, as in the following conception, as a kind of fortuitous coalition:

> …if you're asked to compose for a particular market…to help sell a particular product; what it does is it puts a barrier on where you can go but opens up creative opportunities because you're forced to think outside the square. So it's a creative driver really (Conversation 2, p. 271).

6.7.4. Personality and creativity

The role of personality emerged in a number of conversations in discussing definitions of creativity. This account accompanied the definition of creativity being one's personal input:

> And personality has something to do with it. Some people have no difficulty expressing their personalities and others are more reserved. And similarly some people are more outgoing in their creative expression and creative endeavours and some aren't (Conversation 1, p. 264).

Another personality related view was the possibility that creative people may be driven to seek recognition:

> I think without that need to be seen, sometimes people would be content with not being superbly creative, just creating for themselves and for their own pleasure (Conversation 5, p. 289).

Motivation also bore mention in bringing out creativity, as elucidated in more detail later in this chapter's section on teaching and learning. However, it was noted in one conversation that, "You can't make someone want to do something" (Conversation 2, p. 271). This implies that students must be free to resist the call to creativity. Yet, in the light of discussion so far, resistance to creativity seems an unlikely trait for anyone aspiring to work in a core area of the music industry.

6.7.5. Music as a language: creativity and meaning

The notion of music as a language emerged in conversations. One view was that music has meaning and it is up to the artist to communicate through music with the audience:

> In music you have sound that you manipulate in any way, shape or form to make it say something for you. If it happens to have been commissioned then you manipulate it…to have it say what the client wants it to say. It's the same in fashion. You have to say how it will look or how it will express what the commissioner wants (Conversation 2, p. 273).

Evidently, the concept of music as a language applies equally to learning to play an instrument. In many musical cultures, including popular music cultures, learning music involves a process of imitating, or reproducing different sounds or melodies with an instrument or voice. The popularity and success of the Suzuki model, or mother tongue method of instrumental tuition, gives strength to the language view of music.

> The Suzuki Method is based on the principle that all children possess ability and that this ability can be developed and enhanced through a nurturing environment. All children learn to speak their own language with relative ease and if the same natural learning process is applied in teaching other skills, these can be acquired as successfully. Suzuki referred to the process as the Mother Tongue Method and to the whole system of pedagogy as Talent Education (International Suzuki Association 2011).

The Suzuki method emphasises the importance of an early start – at about age 3 or 4; listening to music; learning to play before learning to read; the involvement of parents; a nurturing and positive learning environment; a high standard of teaching by trained teachers; producing a good sound in a balanced and natural way; common repertoire, and; social interaction with other children: "Suzuki students from all over the world can communicate through the language of music" (International Suzuki Association 2011). That the Suzuki method used the title Talent Education is interesting in that the term talent seems rarely to appear in accounts of creativity. However in the sense used here the term implies that talent is a quality derived from education. The term is admittedly value laden and has different kinds of connotations, from the notion of innate talent to the music and other cultural industries use of talent as a recruitment term to mean procuring someone with the appropriate industry credibility, skills and experience.

One industry informant supported the view that music is best described as a language in the same way that human speech is described as language (Conversation 5, p. 287). Music, like speech is characterised by a multiplicity of languages, dialects and idioms. Also like speech and literary arts these are defined by place and culture, that is to say customs, beliefs, practices, social, economic and other demographically distinguishing characteristics. Also, like speech, music is present in every human population.

As remarked in the previous chapter, the notion of music as a language is much discussed in the domain of ethnomusicology (Merriam 1964), (Treitler 1982), (Nettle 1983), (Molino 1990). A prominent refrain in that discussion is the seemingly ingenuous question of whether music is a universal language. Certainly, music is universal, in the same way that spoken language is universal. That is, spoken language, like music, exists in every known human population. Moreover, though beyond this discussion, recent scholarship draws attention to aesthetically grounded musical performativity in non-human populations (Martinelli 2011), and (Rothenberg 2011).

Pursuing the conception of music as a language as a way of better comprehending the concept of music as a universal language, it is useful to distinguish between music and musics. That is, in the same way that the difference between language and languages is easily understood. The simile might be pressed further to better comprehend the richness and complexity of the

manifold music industries that constitute a music industry. Such an approach allows for the many different musical languages, for example country, rock, blues, electronic, hip hop, rap, pop, Latin, fusion and all of the dialects to be found within that sample and more in other genres of popular commercial music too numerous to elaborate.

Already the idea of music having meaning has been considered. Another aspect of the music as language concept already accounted for in reference to the Suzuki method of learning was apparent in the following observation:

> So a lot about what I believe about creativity is your ability to work within a language that you have been taught and express things to people that they may not have heard before.
>
> …with music, I am able to express some wonderful varied things – light and colours, darks and all sorts of emotion – using that language. And the more unique and expressive I am…the more creative one can consider the output (Conversation 5, p. 287).

The connection between creativity and meaning, as well as the significance of different types of creativity, or creative languages is evoked thus:

> So that if I played a piece of hard core hip-hop to Fred Blanks [a now deceased classical music critic] he would have trouble identifying a creative piece of hip-hop against a non-creative piece of hip-hop because is not a language which he understands. Yet, obviously two different pieces of hip-hop…a person of the culture can say "oh, that's – I've heard that kind of crap before", or, "what a fantastic use of the hip-hop media to create some wonderful new stuff". So its very much dependent on the eyes that…ears that are listening to the work whether it is creative or not, and that's why I guess I don't buy into very quickly the idea of "…That's creative or that's a creative person and that's not" (Conversation 5, p. 288).

6.7.6. Teaching and learning creativity

> Training for me I think of as heading for a certain outcome, but something that is well defined. I can train someone to do a particular task. You can say I can train someone to be creative and I would say – "Oh! That might be a bit of a trick of language you know"? We can put those words together, but that's not what I mean by training anyway. I can educate people to be more creative. It's really looking at a point and working towards a point (Conversation 1, p. 267).

Drawing attention to the importance of setting boundaries to facilitate creativity for students, the words of one informant resonated with insights of Sculthorpe and Koestler, remarked in the literature enquiry, on the importance of restraints in producing creative work (Hughes 1998), (Koestler 1975):

> I can superimpose conditions that will encourage divergent responses within a certain field… So if I'm thinking that creativity is characterised by divergence, if I make that divergence too broad they [the students] will be lost, because they're not necessarily creative. They might have little bits of it – but if I just say, "there do what you like", I'm presuming so much. But to let them play in the field and make the boundaries, then that is a whole lot easier for them. And by that I mean, perhaps if I want them to write a song I might also say we'll write a song, but the song will be humorous and the song will reflect something of the world that we're living in at the moment. The song will make reference or derive from known models of song writing or something like this (Conversation 1, p. 265).

In the practice of music both convergent and divergent modes of cognition are necessary, the technical aspects being convergent and the creative aspects divergent. Both technical and creative abilities are required across a range of musical activities whether in performance or composition. The above cited informant proposed that these two things should not be confused or conflated in pedagogical practice. Hence, it is the responsibility of a teacher to ensure that music students know when they are engaged in a convergent activity and when a divergent activity (Conversation 1, p. 261). This articulation of convergent and divergent thinking calls to mind the work of Guilford (Guilford 1982) and Torrance (Torrance 1974), considered in some detail in the literature enquiry. A similar stance was noted in the literature enquiry on the need to communicate to the student what is being taught, or assessed, and whether divergent or convergent skills (Hickey In press).

Another view posits that, "…it is not possible to teach people to be creative – but to inspire people to be creative" (Conversation 2, p. 271). The difference here though may be in too narrow an interpretation of the term teaching, that is, as a kind of lecturing model of teaching. However, a broader conception of teaching might include creating an enabling environment for creativity. The same informant elaborates further:

> It's about example – to excite people and help them see how someone else is doing it. You can't make someone want to do something. They have to want to do it themselves (Conversation 2, p. 272).

This leads to the question of motivation, a condition for creativity already considered in the literature review. There, motivation was seen to be intrinsic and/or extrinsic (Collins & Amabile 1999). Bloom's environmentally based explanation of motivation (Bloom et al. 1993) resounds in this practitioner's account:

> Well I was lucky in a number of ways – one that I was absorbed in music from a young age. There were pianos all around the house and my father played piano, so I think my creativity stems a great deal from my encouragement to actually just try it and the encouragement to believe that I can do it. And that happened fortunately for me in state run music camps that I went to as a kid. And there were some terrific lecturers who didn't quash anyone…. They encouraged and supported every kid in this music camp. And I went there two or three times a year for a few years. And it is that encouragement that allows you to take risks and to do things that otherwise you would not do and to believe that what you are doing is OK.
>
> Now as a result, when I sit in front of my computer and my keyboard, I believe I can compose music. And I believe that what I put down and what I express has value…And in that belief over the years, I guess I have learned to be self critical and I have absorbed myself in the language enough to go, "that's not very creative" when, you know I stumble upon a melody…I play around (Conversation 5, p. 293).

The above, however, is tempered by conceivably less positive motivating factors:

> And when we make the decision who is more creative than someone else, I don't think that it is a natural, necessarily innate ability. I think it's a person who has been fostered for a

> number of different…in a number of different ways whether it's parents being supportive or parents being neglectful. Somehow there are a bunch of people out there who find creating in a language, music, art, English, ballet etc. They find the need to create (Conversation 5, p. 290).

Related to the question of motivation, and well demonstrated in the above account of creative development, is the identification of the time and effort required to gain the necessary practical, technical, theoretical and creative skills. As suggested earlier in considering Suzuki music education, the process of developing as a musician is usually long and often arduous, and realised only after long and persistent effort. This also applies, in general, to popular musicians.

Notwithstanding the possibility that, in popular music, there may be instances of what one informant refers to as "lucking out" (Conversation 5, p. 287), in most cases popular commercial artists, like classical artists, are not overnight successes. Among musicians it is commonly said that it takes at least twenty years to be an overnight success, a notion echoing the Edison light bulb metaphor cited in the literature enquiry. The following account from a practising musician graphically evinces this aspect of music education:

> Well, I think...of creativity in terms of actually being an artist is that creativity is not something that creates a light bulb going off in the dark instantly. It's a long, long, long, long, process. It's actually learn an art-form, learn a field and learn the patterns within that field and then, after years of effort, years of effort learning an instrument, playing a lot of shows, dealing with society's perceptions of artistic careers being not viable…get a real job…working part time, through all of that, then, if you're lucky you can add something new (Conversation 6, p. 300).

Also evoked here is the notion of commercial success residing in the ability to "add something new". Moreover, this idea is fuses creativity and individuality with commercial success, or at least with community or peer recognition.

6.7.7. Assessing creativity

Misgivings, even confusion concerning the assessment of creativity, surpassed the reticence of informants to focus on creativity items from the Training Package. This equivocation contrasted with the more consistently expressed insights on the acquisition of creative skills. Even so, the spontaneous nature of the conversations, and the fact that assessment is of marginal concern to working musicians, made assessment less amenable to discussion. In any event, consideration given to assessing creativity was limited in the conversations.

At one extreme it was argued that there should be no assessment of creativity (Conversation 5, p. 287). It was also remarked that creativity is neither comparable nor quantifiable and therefore not assessable. Thus, it was posited that assessment should be reserved for technical skills that could be considered quantifiable (Conversation 6, p. 298). At the other end – extreme would be

a serious overstatement – there appeared to be what could only be described as complex ambiguity. Ambivalence around the assessment of creativity was evident, for example, in the account of an experienced VET teacher:

> To write an outcome for that [personal input] is not hard. But if we want to assess that personal input that is something else. Writing it to make sense might be a problem. Writing it to be assessable might be a problem. Measuring the quality and quantity of personal input might be a problem. Actually writing it to a grammatical formulation is no problem at all.
>
> …It's pretty easy to measure standing in line and saluting because there's not personal input – there's a standard. But it is hard to use the same sort of analogy to quantify initiative. It depends what the conditions are and what pressures you're under. And it depends what's deemed to be appropriate after the event. So it's a sort of retrospective thing that's not apparent before the conditions manifest themselves. So to even think about assessing music – weighing up these things. They almost have a different time to be done. Where initiative's involved you almost have to wait to weigh it up, like a past event, whereas things without initiative, because they're not new, they can be weighed up immediately (Conversation 1, p. 262).

This suggests that creativity, personal input, expression, imagination are not really recognised as potential dimensions for assessment in music. Further, it is posited that, as a process, some creativity areas, composition for example, may only be assessed after the event. This represents a disjunction between the poietic and the trace. This difficulty of assessment for creativity was identified only in relation to traditional examination conditions. That is, as an assessment of the product only, evidently not of the poietic process. Still, assessment was only discussed in the most general terms, with little mention of assessment instruments beyond the concept of a one off assessment event. Diaries and portfolios for example were not mentioned, nor how different forms of creativity might be assessed, such as different methods that might be used for assessing a set performance, as opposed to an improvised performance.

Adding to this rather dismal view, another informant, a university academic, ventured:

> In terms of someone who's assessed production works and things, it's much, much easier if you have a course that has thirty students all using a computer software program to produce a record or one song as a recording. It's easier to give them a twenty five question multiple choice exam which tests their technical knowledge of the technology than to actually sit down and think which song…which record is better than the other records, because they're so different.
>
> …its easy to separate marks for technical…it's easier, if you're a classical guitarist. It's easier for the assessor to sit there and note how many mistakes you've made and note how well, or technically proficient you are with guitar and how well you play, because it makes it more like an objective process. It's more like mathematics. It's like saying well… Did they get the pattern right? Did they get this right? And creativity, that's more of a qualitative… and creativity is more of a subjective value judgement. And how do you mark that? …It's a minefield (Conversation 6, p. 305).

Thus from the conversations, understandably perhaps, given the time constraints on the informants, there appeared little help on the question of assessing creativity. Rather, the question served to prompt additional questions. In the spirit of open ended enquiry, however, it

would not have been inappropriate to suggest actual assessment instruments to participants. Possibly the association of assessment with the Training Package, and loaded terms such as outcomes, had the effect of skewing conversations. That is, the context of the dialogue may have encouraged participants to maintain more narrow views on assessment than might exist in their actual practice. Yet, given the absence of concrete examples of actual assessment processes in VET or HE in the conversations, this can only remain conjecture.

It does however suggest that further research might be directed towards the assessment of creativity as a dimension of skill for those aspiring to be music practitioners. In the relatively extensive educational experience of the researcher, the conception of assessment took in an array of instruments capable of capturing the creative process and creative development of individuals. This is not the end of the assessment question however, as this critical issue and further explication of the creativity items from the Training Package are drawn together in Chapter Seven.

6.7.8. Creativity related Units of Competency and the Training Package

Gaining insight from industry practitioners to better understand the effectiveness of the Training Package to influence the development of creative skills proved to be somewhat elusive. As remarked above, given the complexity of the Training Package, and the Units of Competency, it was not surprising that most informants did not engage with the package, or the sampled Units of Competency.

Other remarks about the Training Package pertained to the language in which it is presented. Indeed the strong view of one informant was that the language of the standards in the Training Package is alien:

> So all of these words are used and we've got a vague idea of the meaning but to me they're not used correctly. So I know what you mean by a competency standard, a unit, an element – but that's not how I use those words. So I've got a problem interacting with it because it's in a foreign language.
>
> The creativity bits are in there but they don't make sense within the language (Conversation 1, p. 268).

Thus, from this perspective, while it is possible to understand that creativity might be embedded in the Training Package, conjecture regarding the effect, or outcomes of that embeddedness remains tenuous. This problem evidently arises comprehensively in almost every aspect of the Units of Competency, including the language, the form and the structure of the Units of Competency. By way of explication, a study of the selected Units of Competency in the next chapter at least broadly correlates the creativity findings with the creativity related Units of

Competency selected from the Training Package. Consequently, at that point in the study the selected Units of Competency are scrutinised in some detail.

Though there was not much to be gleaned about the relationship between creativity and the selected Units of Competency, two VET practitioners, one representing a private RTO and the other a public RTO, identified problems for course integrity and ambiguity in the status of qualifications contained in the Training Package. These two broad areas are seen in this view as triggering a cascade of compound difficulties for VET providers (Conversation 1, p. 261) and (Conversation 2, p. 271). Among these difficulties is the impact of the Training Package on current practice, perhaps arising from, for example, the malleable, or flexible, non-linear arrangement of the Units of Competency. There was also doubt about the standards in terms of grading levels of competence: "…all these things point us to things that are important, but it doesn't quantify anything" (Conversation 1, p. 261).

Then there is the manner in which the Units of Competency are bundled into sets as the basis for qualifications especially since, for VET providers at least, qualifications equate with courses:

> …I could take that Training Package and write a course to get to those outcomes, but it would look different to the course that we've got.
>
> …So the Training Package as I understand it is not meant to be a linear document. It's a set of definitions. But when I do a course it's a linear developmental process. It means that I'll be holding some things back for use later on. It's harder to develop attitudes when you give people everything at once. It's harder to make sure that the things are there in the right order so that the next concept will be able to bed down on the last – all those traditional educational things.
>
> ….the Training Package and it's not an education package. And of course it's neither training or a package. It's called a Training Package, but it's neither of them. It's a list of outcomes from the music industry as far as people have been able to write them down under time constraints and personal constraints etc…
>
> The regulations are that your modules will map these units. So in that sense the package stands as a course (Conversation 1, p. 269).

Also of concern in relation to the manner in which the Units of Competency are arranged into qualifications, remembering for VET providers this equates to courses, is the lack of guidance in the Training Package about the time required for students to complete Units of Competency. Here tension emerges from the different aims of VET providers who are bound by the exigencies of course frameworks, and the broader industry aims of Training Packages, to encourage multiple pathways to the achievement of qualifications. The latter consideration places no specific value on course delivery, since its emphasis rests on recognition of competence. Thus, experienced practitioners who have developed their professional skills, outside of the formal education and training systems, can apply for recognition and be awarded

qualifications on the basis of demonstrated competence. VET providers, on the other hand, are steeped in the educational custom of course delivery. Consequently, for VET providers, hours of training represents some measure as an indicator of course integrity, while for other pathways to qualifications, such as recognition of competence processes, training courses may not be relevant at all.

The time factor has particular implications for VET providers and understandably stood as an early barrier to acceptance of the CBT system. Specifically, problems arise from the lack of guidance on how long a course would need to be. This allows RTOs to take short cuts, by reducing the length of courses to improve the economic bottom line. This strategy may compromise the integrity of the qualifications being awarded. Views were expressed that, due to economic competition, this circumstance would have a cumulative effect across the spectrum of VET institutions in the face of economic strictures (Conversation 1, p. 261), (Conversation 2, p. 271). The issue was reasoned thus:

> But for some…colleges who are guided more by economic constraints, the standards can be interpreted minimally. So they can reduce the standards and length of courses. They can offer a qualification say in half the time that we do. And we will eventually fall into step as well (Conversation 1, p. 269).

Some informants considered creativity incompatible with outcomes based methodologies such as Training Packages specifically because of its inherently unpredictable character:

> One of the problems with Training Packages is that while they are trying to be as flexible as possible they tend to stifle creativity and they stifle it because they give you a fixed target to go to and they call that a learning outcome. That target makes you move in one specific direction and that means that creativity is reduced to where that target happens to be standing (Conversation 2, p. 271).

And:

> Defining something that's divergent does more harm than good because it's a lie… If I'm thinking from the point of view of being able to peg some standards across the country so that people can move from one state to another of something I'd say that's such a phenomenal job it'd take decades to do (Conversation 1, p. 268).

6.8. Conclusion

The creativity questions are reprised here to focus the conclusion and to maintain coherence across the two creativity enquiries. As in the literature enquiry, the open method of this investigation means that creativity questions frame, rather than direct, enquiry. The creativity questions are deployed again to draw findings from the diverse insights of individual practitioners, comparable to conclusions drawn from the literature enquiry. Informants shared strong views and opinions on the nature of creativity, its crucial importance, the need to develop it and the means by which this might be done.

As remarked earlier the researcher was privileged to have the capacity for careful reflection and analysis of the conversations. The informants, however were not similarly privileged. Yet, they generously took time out from their core business to speak with the researcher. It should therefore be remembered that informants were speaking spontaneously and in many cases had not consciously entertained any of the questions prior to the dialogues. Participants came from a diverse creative areas and possessed a broad range of experiences of music education and training ranging from little experience of formal training to working in VET and HE.

6.8.1. To what extent can creativity be described and/or defined?

Conversations about how creativity is defined drew notable consensus across the individual informants. Accounts generally proposed semiological views of creativity. Thus factors commonly associated with the creative process were personal input, presenting ideas in new ways, expressing emotions, trying different things and so on.

6.8.2. How is creativity apprehended, perceived and understood?

Conversation around this question tended to focus on different categories of creativity that were evidently situated in culturally, or at least aesthetically, based values and constructs. Discussion here merged with the final of these basic creativity questions regarding the significance of creativity for the music industry. Values about different types or categories of creativity were expressed in terms of authentic, manufactured, organic, inorganic and so on.

6.8.3. What factors are most likely to be associated in manifesting creativity?

This question linked in with the learning question to the extent that freedom to try new things was a constant across the conversations. Other factors coincided with findings from the literature enquiry, for example, that creative people often came from an environment where creativity was encouraged and rewarded. Of particular interest to this question was the identification by one informant of the importance of music camps run by the NSW Department of School Education where musical ability and creativity were encouraged and applauded. Significantly this participant continues to forge a very successful career in the music industry.

6.8.4. To what extent is creativity a gift, a behaviour, a competence, or a skill?

Discussion related to this question was inconclusive. Words such as talent were not used by informants, though many mentioned hard work. The closest to any conclusion on this question was that creativity springs from a combination of circumstance and inclination. It was not regarded as a gift by any of the informants. Nor was creativity considered to be linked to genetic factors, though being born into a musical environment was considered a positive factor. The most common response to this question was that it is a result of persistent effort over a long period of time. The cultural dimension of creativity was identified by most participants as a significant factor in the recognition of creativity by audiences.

6.8.5. To what extent can creativity be learned?

This question came under the heading of learning. It was commonly held that boundaries are needed for creativity to flourish. Other ideas coincided with the notion of guiding and facilitating in a way that can inspire. Motivation was seen to be a critical factor in developing experience. Another view was that technical skills underpin the expression of musical creativity and that these were acquired in practice, including private and public performance practice.

Encouragement was important in the view of most informants. Nonetheless one participant spoke of breaking through discouragement as part of his creative skills development. Another referred to creativity as a result of less positive circumstances. These included, for example, overcoming barriers such as poor technique, or lack of technology, or even lack of support, or even in response to having one's competence as an artist ridiculed, or challenged.

6.8.6. How can we know that it has been learned?

This question came under the heading of assessment and drew the least satisfactorily articulated response across the questions for the conversations. Insecurity provoked in introducing Training Packages may have influenced some of the opinions expression on this matter.

There was a, not uncommon, view that assessment is anathema to creativity. It was generally asserted that at best this area of creativity is very problematic. Some, including a university lecturer, considered that only technical skills could be assessed because they conformed to a more convergent model. Creativity on the other hand was considered too unpredictable and too divergent to be assessed in any meaningful way. This account evidently parallels the axiom

prohibiting comparison of apples with oranges. Moreover the issue of creativity as process underpinned the view of one informant that creativity could only be judged after the event.

6.8.7. What is the significance of creativity for "productive practice / success" in the context of commercial music markets?

One of the informants pointed to the high cultural value of creativity in "our society" (Conversation 1 2003). In the context of that conversation this account is taken to be associated with the kind of discussion about compulsory creativity canvassed in the literature enquiry. There was consensus among informants that while creativity might be a difficult and relative term, that nonetheless it is a critical success factor in the popular commercial music industry. Indeed it was postulated that without creativity the industry would not exist.

6.8.8. Finally

The industry enquiry, like the literature enquiry, has drawn attention to the cultural and conceptual complexity of creativity, demonstrated in this instance through the lived experience of eminent music industry practitioners. As in the previous chapter, the creativity questions have guided enquiry. Here again they have been deployed to capture information of greatest relevance to the research. Using this process, accounts of creativity from industry practitioners have been identified and appraised. This information is distilled to inform specific evaluation of CBT for creativity in music in the following chapter.

Information from these rich encounters with industry practitioners has coincided with accounts of creativity in the previous chapter, drawing associations between creativity and access to resources, experience and practice in a domain, personal motivations, risk taking, intentionality and continuing evaluation of the creative process and products. The significance of creativity for success in popular commercial markets was unanimously confirmed in the conversations.

7. Musical creativity and competence: the case study

In this chapter analysis focuses on testing the fundamental research question, can creativity be accommodated in the competency paradigm? The question is applied to the case study, a purposive sample of eight Units of Competency from the *Music Industry Training Package 01*. The sample is selected for relevance to creativity, and evaluated for convergence with data on creativity distilled from the literature enquiry and conversations with industry practitioners.

The sample is drawn from different sites of creativity, specifically: composing, performing, improvising, studio production and music tuition. Using information gained from the literature enquiry and conversations with industry practitioners, the selected Units of Competency are examined for their value in explicating creative skills to the extent that creativity is adequately specified for learning and assessment in VET.

7.1. The Music Industry Training Package 01

As noted earlier, this case study enquiry into creativity and CBT is located in the initial phase of development and implementation of Training Packages, that is, from about 1990 to about 2005. As also noted, the researcher acted as Senior Project Manager on most of the development phases of the *Music Industry Training Package 01*. Since the release of the original *Music Industry Training Package 01* its basic design and format has not changed significantly. Nevertheless, in the later *Music Training Package 09,* content has been revised and expanded, most notably responding to, and anticipating, complex transformation in the area of technical and sound production.

While not used in this study, the codes for the two music Training Packages can be observed in the following press release. "CU" is the prefix for all cultural industry Training Packages. The third letter signifies the industry sector, for example, E for entertainment, F for film and media, and S for music Training Packages, indicating sound. The numerals after the letters signify the release year of the Training Package:

> The revised CUS09 Music Training Package sees a number of revisions to the CUS01 Music Training Package. The industry coverage remains the same as for CUS01, namely music business, music composition, music performance and sound production. However, sound production has been expanded to encompass a broad range of industry production contexts – from live music concerts and stage productions to sound recording, mixing and editing in the screen, media and interactive games industries.
>
> There was strong support for the final qualifications and units of competency. Targeted industry consultation in the areas of music business and audio/sound production was particularly effective. As a result, new business models and advances in technology are well covered in the CUS09 Music Training Package.

The CUS09 Music Training Package also includes a Music Tutor Skill Set (Innovation & Business Skills Australia 2010).

The purposive sample of eight Units of Competency represents a very small part of the *Music Industry Training Package 01,* which overall contains more than fifty Units of Competency for music and sound related activities. While other Units of Competency in the Training Package encompass creative activities and could have been selected, the aim of this chapter is to test possibilities for accommodating creativity in the CBT system rather than to comprehensively interrogate CBT or to critique Training Packages.

Certainly, in the earliest iterations of competency standards, the concept of CBT was novel. Moreover, as noted in Chapter Two, CBT was commonly considered more appropriate to metals and military manoeuvres than to VET programs, much less schools and HE. As remarked in Chapter Two, the current Australian CBT system had its genesis in the metals industry, effectively establishing a narrow stereotype for Training Packages. Still more significantly, broad perusal of early CBT materials in different industries reflected work of disparate quality. Nor was it difficult to substantiate the charge that many Training Package developers had little or no educational background.

Given these circumstances it was unsurprising that for the most part education and training professionals, who were largely disconnected from the development process, were alarmed at the prospect of having the generic metals model imposed from above in a seemingly gross coup d'état. That it came in a form called Training Packages added insult to injury. Training was far from being considered an educational term. Understandably, while these concerns were held even for traditional areas of vocational education, dismay was greater in the cultural industries.

However, over the fifteen years since Training Packages emerged, research and development has been applied to improve the quality, consistency and coherence of Training Packages (Schofield & McDonald 2003). Evidently the continuing general critique of CBT, and of Training Packages in particular, has had a galvanising effect on quality improvement, or at least perceived quality improvement, of Training Packages. This has applied particularly to Units of Competency, formerly "the standards". Analysis of quality issues in Training Packages is not within the remit of this study, and outcomes from these improvement activities are not judged here. Similarly not analysed are professional development opportunities that, though sorely needed for all relevant stakeholders, were evidently inadequate in the promulgation of CBT.

In the experience of the researcher, the demise of Training Packages was widely predicted by VET teachers and academics, and in industry circles. Given this fraught induction, it is

remarkable that CBT in general, and Training Packages in particular, have endured. Nonetheless, the purpose of this study is not to debate the quality or effectiveness of Training Packages. It is to investigate their potential use for the development and assessment of creative skills, that is, to consider if creativity is, or can be, accommodated in the current CBT system.

7.2. Training Packages as conveyors of the Australian CBT system

Taking up from enquiry into the genesis of CBT elaborated in Chapter Two, a brief explication of Training Packages is a necessary starting point for the chapter. Since their introduction towards the end of the 1990s, Training Packages remain the prime national vehicle for CBT in Australia. The development of Training Packages, initially managed by Industry Training Advisory Bodies (ITABs) is now managed by Industry Skills Councils (ISCs). The ISC for the music industry is Innovation and Business Skills Australia (IBSA):

> Innovation & Business Skills Australia (IBSA) is one of eleven Industry Skills Councils. Our mission is to build capability, professionalism and innovative capacity in Australia's workforce through sharp-focused consultation on skill needs in our six industry sectors. Our workforce development products and services reflect real industry skill requirements and are designed to foster innovative thinking and practice (Innovation & Business Skills Australia 2011).

The music industry falls within IBSA's coverage of cultural and related industries. Other sectors in the cultural and related industries group, for which IBSA holds responsibility, are community cultural development, dance, museums, galleries and cultural heritage, libraries and information services, performing arts, entertainment, visual arts, crafts and design, multimedia, and film and media. In addition to the cultural and related industries sector IBSA's purview encompasses business services, training and education, information and communications technology, financial services and printing and graphic arts. In overseeing the development of Training Packages for their allocated industry sectors, skills councils must ensure alignment with requirements set out in the *Training Package Development Handbook*, which asserts:

> Training Packages specify the skills and knowledge required to perform effectively in the workplace. They do not prescribe how an individual should be trained. Trainers and supervisors develop learning strategies – the 'how' – to support an individual learner's needs, abilities and circumstances.
>
> The development and endorsement process for Training Packages ensures the specifications are developed to an agreed quality standard and are highly responsive to industry's existing and future demand for new skills (Department of Education 2011).

The development and endorsement process for Training Packages is complex and intensive. For each Training Package developed or reviewed, several rounds of consultation in all states and territories are mandated. A range of relevant industrial, educational, government and community organisation representatives, inclusive of all interested parties, is required to be

involved in consultations. Certainly, in the Australian education system, no precedent exists for such a concentrated effort devoted to achieving a national scheme on this scale.

As of September 2011 the National Skills Standards Council (NSSC), taking up the role of the former National Quality Council (NQC), sat above the ISCs. The NSSC has the ultimate responsibility for endorsing Training Packages, and for developing related policy and quality assurance of Training Packages:

> The NSSC is an advisory body of the Ministerial Council for Tertiary Education and Employment (MCTEE), which is one of a number of Ministerial Councils that report to the Council of Australian Governments (COAG)…
>
> The NSSC is responsible for endorsing Training Packages, developing related policy and the quality assurance of Training Packages. It will make decisions in relation to the endorsement of individual Training Packages to ensure that they meet current and future workforce skill development needs. As part of this responsibility, the NSSC must be satisfied that:
>
> - the Training Package meets the requirements of the standards for Training Package development and endorsement;
> - relevant industry stakeholders have been consulted in development of the Training Package and are supportive of any changes proposed; and
> - relevant State and Territory government authorities have been consulted in the development of the Training Package and about the implication for implementation (National Skills Standards Council 2011a).

Essentially the development process for Training Packages is marked by a series of phases in compliance with the provisions of the *Training Package Development Handbook* (Department of Education 2011). Those development phases are directed by the relevant ISC. Typically they include

- preliminary research and scoping of the industry sector
- convening meetings with key representatives
- ensuring that all relevant interested parties are included
- developing discussion papers
- preparing drafts and redrafts of the Training Package for comment
- recording discussions and meetings for continuous feedback
- amendment and planning for consultations in each state and territory
- continuously noting major issues, concerns and suggestions raised to ensure open discussion across all states and territories with all participating parties.

Typically these issues differ and sometimes conflict among various interested parties in different states and territories. Recognising that consensus is a relative term it should be noted that it is used very loosely in this context as, unsurprisingly, controversy attends almost every Training Package development project. Nonetheless, after a comparative level of consensus is negotiated and reached across at least most of the relevant parties, taking into account any major issues and concerns, a penultimate draft of the Training Package is prepared and disseminated for validation. This process involves the Australian Government, represented by the relevant ISC and all state and territory training authorities. Typically, this is done in a national teleconference as a final check that no serious issues remain to be resolved and that the Training Package is of sufficient quality to be presented for endorsement. The Training Package is then amended as required before being prepared and presented to the NSSC for endorsement.

7.3. Life cycle of Training Packages

Once endorsed, whether in its original iteration, or as a subsequent iteration resulting from a review, the Training Package remains a living document open to amendment by agreement. Policies and procedures concerning amendments and the Training Package lifecycle of review and redevelopment are described in the *Training Package Development Handbook* (Department of Education 2011). All Training Packages are subject to review, a process applied over time, that follows a similar pattern to the initial development process described above. The *Music Industry Training Package 01*, for example, was comprehensively reviewed over a number of years to be recast and submitted for endorsement as the *Music Training Package 09*. Essentially, Training Packages are developed for specific industries, or sometimes industry sectors. In a very few cases they are developed for large private corporations.

7.3.1. Training Package implementation

Once endorsed as a new or reviewed Training Package, after a transitional implementation period the most recent version of the Training Package mandates the award of all qualifications contained in the Training Package. Thus, where a qualification is awarded that is covered in a Training Package, assessment for that qualification must be based on the Units of Competency mandated in the relevant Training Package for that qualification. Typically, that covers the most up to date range of qualifications that fall within the remit of the industry, or industry sector, served by the Training Package. For example, the qualifications framework from the *Music Industry Training Package 01* was modified and updated in the subsequent Training Package review. Thus the qualifications framework of the original Training Package is no longer

applicable to achievement of qualifications, which now must be based on the *Music Training Package 09.*

7.4. Structure, reach and implications of Training Packages

Training Packages have three endorsed components:

- **Units of Competency**, also formerly known as competency standards. These are the basic building blocks of Training Packages. They specify workplace skills, including knowledge, abilities, attitudes and understandings required for different tasks and different levels.
- **the Australian Qualifications Framework** which is composed of groups of Units of Competency packaged to align with VET qualification levels of the AQF, that is Certificates I to IV, Diploma and Advanced Diploma. Many Training Packages do not include qualifications at all of those levels, especially at the lower and higher ends. Some do not include a Certificate I qualification and some do not go beyond Certificate IV. Some levels may have multiple qualifications to cover different broad functional areas of work. The *Music Industry Training Package 01* and the *Music Training Package 09* for example have no Certificate I qualification and one general qualification at Certificate II. Then at each level from Certificate III to Advanced Diploma there are three separate qualifications streams, one in music performance, composition and tuition, another in technical sound production and another in music business.
- **assessment guidelines** which give direction for assessment according to the particular character and requirements of the industry served by the Training Package. The guidelines must warrant that assessment is valid, reliable, flexible and fair.

Mandated nationally to direct training and assessment for the VET sector, Training Packages are instrumental in systematically executing the national competency system in Australia. Thus, as indicated in Chapter Three, where VET occurs in workplaces, communities, schools, TAFE, private RTOs, ACE, HE or any other setting, Training Packages form the mandatory basis for all education and training activity that involves the award of qualifications covered in Training Packages. They also govern the award of Statements of Attainment for assessment at the Unit of Competency level.

7.4.1. Accredited courses

Prior to the introduction of CBT most training was undertaken through courses developed by training providers. These had to be submitted to state and territory accreditation authorities for approval before they could be delivered, and qualifications awarded, by training providers. Course submissions for accreditation had to include the qualifications for which they were intended. This alternative regulatory stream remains in areas not covered by Training Packages. However, courses that replicate qualifications covered by nationally endorsed Training Packages can no longer be accredited as, unilaterally, qualifications introduced in Training Packages override equivalent qualifications in existing accredited courses. Upon endorsement of each new, or reviewed, Training Package pre-existing qualifications that replicate those in that Training Package become void after a mandatory implementation transition period elapses.

Accredited courses now remain only in areas that have so far eluded Training Package coverage. Some residual course activity ensued for music, though this tended to be courses accredited to provide qualifications, for example, in specific teaching methods such as *Suzuki*. However, the new *Music Training Package 09* Tuition Skill Set may prevail over such courses. Even so, the introduction of national *Standards for Accredited Courses* (Dept of Education Science & Training 2007), adopted by state and territory authorities makes accreditation contingent upon courses complying with CBT principles. Consequently courses must also be developed as Units of Competency, imbuing them with the character of mini Training Packages, though concession may be pleaded for courses based on modules. Courses are given more rigid sunset clauses than Training Packages, subject to the course accreditation periods sanctioned in each state and territory. In most cases this is five years. Hence it is likely that knowledge, or, module based courses will wither from the VET sector in somewhat less than a five year timeframe.

7.4.2. Concerns with Training Packages

As indicated in previous chapters and particularly in the Chapter Six industry conversations, the Training Package system and the *Music Industry Training Package 01* has been subject to wide ranging concerns and objections, predominantly among RTOs. Dissatisfaction is not reduced by the evident and lingering feeling of disempowerment expressed by teachers in the VET sector with the imposition of Training Packages. Negative responses are further magnified by the not unusual, and possibly not unfounded, assumption among VET practitioners that Training

Package developers are not education professionals. Nevertheless, though clearly apparent, negative responses are evidently not unanimous across the VET sector.

The absence from Training Packages of guidance on hours of training to achieve a qualification is of particular concern for RTOs. VET industry informants point to this lack of prescription on hours as a deficiency that serves as a trigger for "other" RTOs to cut corners in course delivery and to improperly fast track qualifications (Conversation 1, p. 269). The rationale for avoiding statements about nominal hours is that Training Packages are intended to embrace different pathways to qualifications. Thus, Training Packages are designed to explicitly promote assessment opportunities for practitioners through recognition processes other than the completion of courses. While on one hand experienced practitioners seeking recognition for current competencies can be assessed independently of courses, on the other, aspiring practitioners who undertake formal courses can be assessed in conjunction with courses. Training Packages provide the same assessment blueprint in either situation. Vis-à-vis the *Museum & Library / Information Services Training Package 99*, for example, specific consideration was given to the award of qualifications for people with relevant skills gained from work experience through volunteering. It was considered a matter of justice, not to mention encouragement for continued volunteering, for the evident skills of volunteers to be formally recognised:

> Museums are among the highest users of unpaid staff in the cultural/leisure industries. Volunteers, for example, run most local museums, while regional galleries and keeping places have a small number of paid staff. Volunteers may work in all areas of the museum: as honorary advisers, curators, researchers, cataloguers, field workers, guides and information staff. The industry Training Package applies equally to paid and unpaid employees and includes competencies for managing volunteers (CREATE Australia 1999, p. 1).

Similarly musicians, though not volunteers in the same sense as the museum volunteers, typically work without pay for a period of time before, if ever, gaining remuneration for their work. Thus, like volunteers they can benefit from recognition of skills informally gained. As Training Packages must also cater for assessment only processes for practitioners legitimately seeking skills recognition, it is not appropriate to mandate courses or hours of training into the assessment process. However, general guidance on hours is included in the AQF Handbook for the purposes of courses delivered for the award of different levels of qualifications (Australian Qualifications Framework 2011).

In any case, for popular commercial music business culture, the practical value of a qualification might be a matter of debate. Ambivalence about the worth of qualifications to industry practitioners was evident in the industry conversations of Chapter Six. While both VET

practitioners evidently presented a positive view of qualifications, the creative practitioners seemed less convinced about their value, though they did not view qualifications negatively.

Training Packages have also attracted criticism concerning the qualifications and Units of Competency, a point given closer attention below. Predictably, given the initial deficit in professional development, Training Packages were perceived as merely collections of unrelated, or at best poorly related, Units of Competency, and Units of Competency merely tick boxes. This view portrays Training Packages as projecting a highly atomistic approach to training and assessment. Nonetheless, that view fails to recognise the potential interrelatedness of Units of Competency. That is not to hold Training Packages as examples of holistic learning in which Units of Competency are elegantly integrated. Still, through the judicious selection of Units of Competency there is evidently potential to form integrated training and/or assessment programs.

A scarcity of professional development opportunities in the early stage of Training Package implementation caused understanding of Training Packages, and in particular interrelationships between Units of Competency, to remain nascent. This served to exacerbate confusion over Training Packages. Hence, it was not uncommon for RTO personnel, or workplace trainers implementing the new system, to consider each Unit of Competency separately and to set about delivering training and assessment based on individual Units of Competency, rather than packaging Units of Competency into bespoke bundles of course outcomes most suited to existing, or potential courses and qualifications being offered.

As the system settled and matured however, and the quality and availability of professional development improved, teachers, trainers and assessors became more experienced in, and informed on the use of Training Packages. The early phase of Training Package implementation is well captured by Smith and Keating, who have provided some of the best and most important information to the VET community from the beginning of CBT implementation (Smith & Keating 2003). As a consequence it is likely that the delivery of Training Package based courses and assessment programs has become more integrated, though even now with an established national regulatory regime, it is also likely that the quality of delivery remains inconsistent, though whether more or less inconsistent than prior to the CBT regime remains moot.

Possibly a less significant concern raised by RTOs was the requirement that qualifications be named as specified in the Training Package. RTOs saw this as an impediment for differentiating qualifications from other RTOs. Evidently, until CBT, the naming of qualifications was less rigid in the VET sector than was the case for HE and schools. Prior to the introduction of Training Packages, RTOs specified the qualifications for courses they developed and submitted

for accreditation with State Training Authorities. The Training Package regime, however, centralised qualification titles, much to the chagrin, especially, of private RTOs.

7.4.3. Units of Competency

Units of Competency are set out in the form of expected workplace outcomes and their structure is closely specified in the *Training Package Development Handbook* (Department of Education 2011). Because they are packaged into qualification levels of the AQF, Units of Competency have to be developed for work activities at different levels. In the packaging rules of most Training Packages, no individual Unit of Competency may be packaged in more than two qualification levels. Level descriptors for all of the qualifications in the AQF are set out in the AQF policies and guidelines thus:

- Certificate I, basic functional knowledge and skills
- Certificate II, knowledge and skills for routine work
- Certificate III, broad knowledge and skills for skilled work
- Certificate IV, specialised knowledge and skills for skilled work
- Diploma, integrated concepts for paraprofessional work
- Advanced Diploma, advanced skills and paraprofessional work (Australian Qualifications Framework 2011).

In the packaging process, many Units of Competency may be aligned with specific qualifications. For example the *Music Industry Training Package 01* has three different streams of practice from Certificate III through to Advanced Diploma, while other Training Packages have more open qualifications.

As noted above, from the outset of Training Package implementation, Units of Competency were routinely portrayed as atomistic tick boxes. As such, they were often relegated, somewhat disdainfully, to the implied ghetto of outcomes based methodologies. As noted in Chapter Three, investigation and due consideration of outcomes based learning is wide of the scope of this study. Nevertheless, the similarity between the specification of skills in Units of Competency and the specification of learning outcomes in outcomes based learning is manifest.

Another criticism of Units of Competency is that they promote a kind of educational bottom line. This perception is heightened by the perceived black and white notion of ungraded judgement at the point of assessment for each unit. That is, in applying a Training Package to

the assessment process, the assessor needs only to deem the candidate competent, or not competent, in each of the Units of Competency for which the candidate is being assessed. It is at this juncture that conflict between implicit notions of competence and excellence is manifested.

Understandably, given the notion that Units of Competency are singular measures from which to derive a yes or no assessment outcome, the concern is that the implied aspiration for a candidate in the VET sector is merely competence. However, assessment systems in other education sectors, and in other systems, such as the AMEB, imply that competence resides at the pass level. In that system six passing levels are available from Preliminary to grade 8, two are available at the Diploma levels of Associate and Licentiate and one at the highest, and most prestigious and infrequently, awarded level of Fellow (Australian Music Examinations Board 2011). Though the AMEB assessment system takes in a wide range of achievement levels and grades, implicitly performance excellence increases incrementally in proportion to the level being assessed. In such a broad assessment system a range of ages and abilities is taken into account. Hence, grades appropriate to different age cohorts help candidates to know their standard of performance relative to candidates in their age cohort and relative experience level.

It might be reasoned, however, that this is not the case for VET. While candidates for assessment inevitably represent a range of ages, experience and abilities, the range is within a relatively adult cohort. Moreover, the purpose of assessment is to determine that the candidate is competent to perform a range of tasks relative to a commercial setting. It is not to determine how the candidate ranks against a particular cohort based on age, or time served. Moreover, as in other systems of assessment leading to qualifications, higher levels of achievement reside in higher qualification levels in the VET system. For example, Certificate III is a trade level qualification, though three further qualification levels are available above that level; Certificate IV, Diploma and Advanced Diploma. From the point of view of HE assessment systems also, though grades of assessment prevail for individual subjects, the level of the qualification achieved from the range of undergraduate, honours and post graduate qualifications is likely to be considered more relevant for employment purposes than individual grades for discrete subjects completed to attain the HE qualification.

Attributions of narrowness levelled at the Training Package system to some extent overlook the complexity of the Units of Competency and the manner in which they may be holistically inter-related. For example, in accordance with assessment guidelines contained in each Training Package, it is usual for assessors to bundle relevant Units of Competency together to form a coherent and efficient evidence gathering program for the purpose of assessment. In the same

way teachers, or workplace trainers, would select from a range of relevant Units of Competency to form courses from Training Packages. That is not to assert that Units of Competency are of a consistent, or even suitable quality, though that discussion is outside the scope of this study.

Though possible, it would probably not be usual for a candidate to seek assessment for only one Unit of Competency. However, though successful assessment for one, or a group of units, is not sufficient to make up a qualification it can lead to the award of a Statement of Attainment, another uniquely VET form of recognition available in the Training Package format. Typically, for most candidates however, the goal would be to achieve a qualification. That would require being assessed competent in the package of compulsory and relevant elective Units of Competency prescribed for the qualification being sought. That could also mean presenting a Statement of Attainment and seeking assessment in the remaining Units of Competency required to complete the qualification. In some Training Packages stipulated Units of Competency are grouped into Skill Sets, yet another form of Training Package recognition. A 'Tuition Skill Set' exists in the *Music Training Package 09* for teaching music one to one, or in small groups. Like a Statement of Attainment, a Skill Set may later be converted into a qualification, subject to successful assessment of the remaining Units of Competency relevant to the qualification.

7.4.4. Structure of Units of Competency

The structure of a Unit of Competency encompasses a number of sections. Some changes and new features in Units of Competency have been introduced into Training Packages subsequent to the *Music Industry Training Package 01.* However, these are not essential to this study. The structure described here is that of the purposeful sample of eight Units of Competency selected for this study. In addition to the sections set out here, each Unit of Competency also carries a code, though the inclusion of codes is not necessary for the purpose of this discussion. Sections in those Units of Competency in the *Music Industry Training Package 01* are:

- **Unit Title** is self evident as indicated below in the selected Units of Competency
- **Unit Descriptor** summarises the area of work covered by the unit if competency
- **Elements of Competency** break down the tasks/functions required in a workplace context
- **Performance Criteria** describes the kind of data that enables competent performance to be judged

- **Range Statement** describes the range of contexts and circumstances in which the competencies might be expected to be demonstrated
- **Underpinning Knowledge and Skills** generally describes required knowledge and capabilities required for demonstrating the competence specified by the unit
- **Linkages to Other Units** draws attention to other related units, including prerequisites
- **Critical Aspects of Evidence** specifies the crucial evidence required for assessment
- **Method and Context of Assessment** provides guidance for assessment of the unit.

7.5. Purposive sample of eight Units of Competency

Descriptions of the Units of Competency, sampled for analysis here, are set out below. Full copies of the eight Units of Competency are attached at **Appendix C**.

1. Create Original Music: This unit covers the technical, expressive, experimental and music knowledge and skills required to produce original music and to set it down appropriately for use in performance.

2. Provide Tuition for Composition: This unit describes competencies required to provide tuition in composition privately to individuals, or groups of less than five, in a private home studio or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

3. Perform Music as a Soloist: This unit covers the technical, expressive, communication and stage skills required to perform for an audience as a soloist.

4. Provide Instrumental/Vocal Tuition: This unit describes competencies required to teach instruments, including voice, privately to individuals, or groups of less than five, in a private home studio, or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

5. Develop and Practise Improvisation: This unit covers the acquisition of skills in using relevant harmonic elements, materials and protocols to demonstrate creative improvisation, in music performance.

6. Perform Improvisation for Audience: This unit describes the aural, musicological and creative competencies required to perform improvisation for an audience as part of an ensemble.

7. Develop and Implement Sound Production: This unit describes the technical, artistic, expressive, communication and sound design competencies required for producing a recording.

8. Develop Self as Artist: This unit covers the development of the technical, interpretive and expressive skills required to create, perform and/or direct music to a professional standard. It also deals with communicating effectively and working strategically and cooperatively to achieve planned artistic outcomes.

7.6. Selection of the purposive sample of Units of Competency

The purposive sample takes in a range of functional creativity sites in music practice and production. Composition, performance, improvisation and studio sound production are included. Two tuition units are also sampled, to investigate a, possibly vicarious, site of creativity from a pedagogical perspective. Evidently these pedagogical units have potential to address the research question concerning the extent to which creativity can be learned. *Develop Self as Artist* is included for its personal perspective of artistic self development.

The foregoing account of Units of Competency demonstrates that they are highly structured, technical and detailed instruments to guide and direct learning and assessment. Experience in developing the *Music Industry Training Package 01* afforded the researcher some understanding of the problems presented to RTOs and industry by this sweeping new system. Partly this was achieved through close and comprehensive national consultation, encompassing individual contact, focus groups and other forums to consult directly with industry practitioners on this complex document.

Data from the various enquiries of earlier chapters, especially the literature enquiry and industry conversations, become operational again in this chapter. Findings of the latter creativity investigations are invoked for convergence with the sample of Units of Competency. Additionally, the considerations for conversation participants serve here, with some amendment, to illuminate the present task,

- The relative degree of creativity across the eight sample standards. Thus, is creativity more important in some areas than in others and if so in what way?

- The capacity of the competency approach to developing creativity, with particular reference to the sampled Units of Competency, that is, to what extent can each one support training and assessment for creativity in music?
- What changes might be considered to increase the capacity of any of the selected standards in developing creativity?
- To what extent does data from the literature enquiry, industry conversations and other enquiries from the study, correlate with aspects of the sampled Units of Competency?

In addition to those considerations the study is also guided by the creativity questions. As in earlier chapters these questions serve in the broadest sense and will be given further attention in the following chapter.

In considering the sampled Units of Competency as a group, attention is drawn to the significance of creativity evidenced in the descriptors for the sampled units. As above, the descriptors appear beside each of the units named. Also evident at **Appendix C**, this is how the descriptors appear in the Training Package. Specifically, each descriptor in the sample Units of Competency contains either the term "expressive" or the term "creative". If the term expressive is aligned with the explicit observation that creativity is personal input into the music (Conversation 1, p. 261), or that music is personal communication, or a language (Conversation 3, p. 275), (Conversation 5, p. 287), or, as cited in the literature enquiry the conception proposed by Boulez on the subject of music composition as: "that's being yourself" (Ford 1993), then the term expressive may be considered joined to creativity.

From there it seems not too great a step to suppose that in deploying the terms expressive, or creative, the descriptors of the sampled units confirm an intention to include creativity in each of the units so described. Further, as the units purport to describe industry relevant skills then, in Training Package terms at least, creativity is explicitly identified as a skill relevant to the music industry. Hence, though evidently more explicit in some areas than in others, it can be ascertained that creative skills are, at least to some degree, integral to at least some of the activities described in each of the selected Units of Competency. Titles pertaining to composition or improvisation stand unequivocally for creative skills, while others may seem less obvious. Nonetheless, while it can be established that creativity is indicated in all of the sample units by the terms expressive and creative in the descriptors, a quantum issue remains.

This leads to the question of the relative degree of creativity across the eight sampled Units of Competency. Is it more important in some than in others? Thought has been given to this

question in the order in which the units are placed in the above list. It was considered important to lead the list with composition, an area of indisputable creativity and then lead into performance, a somewhat more contentious entrant to the creativity endeavour. From there it is possible to raise some questions about different areas of music practice from a relative position. Thus the areas of practice selected are calculated to ensure that creativity is considered across the creative domains of popular commercial music.

7.6.1. Composition

Like the improvisation units, *Create Original Music* is manifestly creative. Hence this unit might be expected to be fulsome in its specifications of creativity.

7.6.2. Performance

Anecdotally, at the outset of this study it was proposed to the researcher that performance is not really creative. Indeed it was suggested that performance was akin to "painting by numbers". This view was useful in prompting thought about the place of creativity in music performance. Until that time the question had barely yet occurred to the researcher as to what sites of creativity might be in, and what might be out, in terms of music practice in this creativity study.

This attitude towards performance was not the view of a musician. Nevertheless, popular musicians are not above referring, somewhat competitively or mischievously perhaps, to classical performers as "cover artists". By that it is suggested that classical performers merely reproduce music that has already been composed, in the same way that some popular cover artists reproduce standards as closely as possible to the original performance. Thus, in this view, reproduction of composed works is an act of mimicry rather than creativity. Though in this context the term cover is used pejoratively against the popular singer, nonetheless these observations provided leverage for considering the role of creativity in music performance. Further, this brings to mind discussion in the conversations with industry practitioners about different types of creativity that is, perhaps, good and not so good creativity; good meaning authentic and not so good meaning manufactured, or fake (Conversation 4, p. 280), (Conversation 5, p. 287), (Conversation 6, p. 298).

The above discussion, then, was a useful trigger for the researcher in considering the inclusion of performance as a creative site. Earlier references to Janice Joplin served as an example of creative performance, and similarly many other examples could be instanced from diverse forms, genres and music cultures. Indeed there is much scope for dismissing particular music

styles, occasionally even, due to a lack of understanding by the critic of the style being judged. This was indicated in a hypothetical, mentioned in an industry conversation, concerning the legitimacy of hip hop being judged by a person without any knowledge or understanding of the genre, though an eminent music expert (Conversation 5, p. 287). Demonstrating this very point, and evoking the painting by numbers analogy, another informant observed that a classical guitarist could be more easily assessed than a rock guitarist because the classical performer was merely required to play the notes from the score (Conversation 6, p. 298).

Hence, as remarked earlier, the degree of creativity in any given performance may be a question of quantum. Judgement of that quantum, however, is likely to vary, among assessors or audiences, not only on the grounds of personal taste but, more significantly, according to knowledge of the genre. Nonetheless it has to be said that, aside from the vexing question of judgement, creativity in performance evidently ranges across very wide and complex continua. Consequently, it is argued that the unit *Perform Music as a Soloist* is worth considering for the potential it may have to draw out and specify creative skills in any meaningful way as a basis for developing skills in the area of creativity in performance. If Units of Competency are fit for their designated purpose, to comprehensively articulate the skills required for a particular task, then it is crucial to identify the nature of those skills as comprehensively as possible.

7.6.3. Tuition

Provide Tuition for Composition, and *Provide Instrumental/Vocal Tuition* are likely to be seen as aligning with the units, *Create Original Music* and *Perform Music as a soloist*. These two tuition units are considered because of their relationship with learning in apparently creative areas of practice. It will be observed that both refer in their descriptors to creative thinking processes, though neither expression or creativity are specified in the descriptors.

7.6.4. Improvisation

The two units pertaining to improvisation, *Develop and Practise Improvisation* and *Perform Improvisation for Audience* are self evidently creative, as improvisation is creative by definition. They are placed after composition, performance and tuition because those three areas are closely interrelated, while improvisation unites performance and composition.

7.6.5. Sound production

Develop and Implement Sound Production for a Recording may appear to be a technical unit. Nonetheless, its descriptor implies artistic, expressive and design competencies. Additionally,

the role of studio recording producers was singled out for attention in the industry conversations as a significant creative dimension of the music industry.

7.6.6. Core creative skills

Develop Self as Artist embraces interpretive and expressive skills in the descriptor, suggesting this to be a unit concerned with artistic skills and habits. Though beyond the investigative scope of the present discussion, this unit may contain elements that appear in other Units of Competency, possibly units selected in this sample. Thus insight may be gained into how Units of Competency might overlap and cohere to form a learning program, or an evidence gathering plan for an assessment event.

7.7. Levels and qualities of creativity in the sample

Ultimately, a range of issues of great interest and importance lies in wait to obstruct the task at hand. The question of creative quantum, for example, may lead only to forensic gridlock. Consideration of the units in relation to their appropriate qualification levels would bring a separate locus of discussion to the task, beyond the capacity of this dissertation. The question of accurately representing qualification levels is a serious one. Undoubtedly it is worthy of more rigorous investigation than is possible in this exploration of creativity. Similarly the question of graded assessment is noted, though that discussion relates to the relatively fulsome consideration, in Chapter Three, of the notions of competence and excellence. There competence is presented as a binary concept in contrast to excellence with its graded shades of complexity and calibrated precision. Leaving such questions aside, the present task is to seek creativity in the sample of Units of Competency and bring to bear on it the light of data gathered and analysed in previous chapters.

This particular group of eight Units of Competency has been selected to yield a reasonable sample of creative sites for music practice; composition, performance, improvisation and studio music production. Tuition for composition and performance are selected as extensions of composition and performance because, ideally at least, they encapsulate the creative skills necessary for popular musicians.

7.8. Convergence of Units of Competency with data sources

The selected Units of Competency at **Appendix C** are referred to in the body of the thesis by numbers 1-8 or by title. Code numbers for the sampled Units of Competency, included at

Appendix C alongside their titles, are not used in the body of the dissertation. However, the numbering system attached to the *elements* and *performance criteria* is used for this discussion to indicate specific sections from the Units of Competency.

In probing the sampled units for creative components, reference is made only to sections of the units relevant to creativity. Technical skills, for example will not generally attract comment, unless bound with creativity. Inevitably, units more strongly associated with creativity are given greater attention. Parts of the units are generally described, rather than directly quoted. It is not intended to suggest that the creative process is easily mastered, or that it can be mastered without appropriate technical skills. For musicians, creative success typically follows years of technical toil, if ever it is achieved (Conversation 1, p. 261), (Conversation 6, p. 298). The primary aim here is to closely consider specification of creativity.

7.8.1. Create Original Music

The Unit of Competency*, Create Original Music*, at **Appendix C-1**, is replete with specification of creative skills. Evidently, the unit is fully engaged with the creative and imaginative activities of musical composition. Elements most relevant to creativity in the unit are 1, 2 and 4.

Element 1. Investigate and experiment with musical components and materials for the purpose of expressing ideas. The five *performance criteria* linked to this *element* translate the *element* into tasks, generally directed towards planned or intended outcomes. This *element* strongly evokes the notion of compositional cognitive space in a fashion that might be applauded by Boden (Boden 2004), Sawyer (Sawyer 2006), Zappa (Zappa 1997) and others (Conversation 1, p. 261).

Performance Criteria 1.1 and 1.2 specify

- identifying and using music elements and options compatible with making the creative work and with planned outcomes
- identifying and determining the constraints and potential of musical elements relevant to work and intended outcomes.

Having a specific intention to create something in particular through a process that "…allows for the production of novelty but which is not random", these *performance criteria* support evolutionary views of the creative process (Briskman 2009), (Simonton 2009). Here creativity is construed as a blend of enculturation, knowledge and skill, with an action, or intention to make something new; Simonton's "*combinatorial* or *constrained stochastic* process (Simonton 2009).

The second performance criterion above draws attention to the issue of constraints, though the notion is not pursued expansively to the point of using constraints as suggested in the literature (Koestler 1975), (Hughes 1998). This might be a site for investigation in future Training Package reviews.

Performance Criteria 1.4 and 1.5 stipulate

- investigating combinations and juxtapositions of a range of resources and techniques for potential creative development
- exploring and assessing the effect of combining a range of materials, resources and techniques in different elements of music for possible incorporation into work.

These criteria accord with views that emerged in the industry conversations, such as to play around with the musical materials, or to try out new ideas (Conversation 2, p. 271), (Conversation 3, p. 275), and to express emotions (Conversation 2, p. 271), (Conversation 6, p. 298). Further, these criteria accord with notions of suspending ideas of right and wrong to experiment with the musical material. This behaviour is advocated with some strength both in the literature (Bloom & Sosniak 1985), (Csikszentmihalyi 1996) and in the conversations (Conversation 3, p. 275), (Conversation 5, p. 287).

Element 2. Generate and develop concepts and ideas. This element embraces investigation and experimentation.

Of the four performance criteria attached to this element, two translate most clearly into creative tasks; 2.2 is seeking ideas or starting points and experimenting with options for realisation of the initial idea. 2.3 is identifying basic structural elements for the realisation of the selected idea and investigating their potential for achieving the desired effect.

Element 4 Evaluate work

Performance Criteria here: 4.1 identify criteria to provide an effective measure of the success of the work in its context; 4.2 compare work against previous compositions to assess innovation of development of techniques and ideas. These clearly fit with the notion of self evaluation of creative work.

Range of Variables

Statements listed under general areas in this section of the unit give context to the *performance criteria*, for example, strategies for developing composition skills. This is followed by a menu of general possibilities, such as courses, listening widely to music, professional development,

participating in festivals and conferences, analysing and evaluating own work and the work of others and so on. Other groups of suggestions listed under different headings include, for example, listening, music knowledge, technical skills, technology, workplace issues and so on.

There is no section given to creative skills, though these appear to be, such as they are, under the first general heading above.

Evidence Guide

This section includes comprehensive assessment information for the unit. It contains lists of skills that need to be demonstrated. This includes a section covering creative skills and another covering expressive skills. These two sections are fulsome in their coverage of the creative and expressive skills already detailed in the *elements* and *performance criteria* as requiring assessment.

Other categories include knowledge, technical, planning and organization, and so on.

The method and context of assessment follows with advice on how the assessment might be conducted as well as the resource requirements.

Performance Criteria 2.2 of this unit, explained above, points to the concern raised by an industry informant (Conversation 1, p. 261), that the performance criteria do not serve as assessment criteria but at best may be good ideas for teachers. The question for this performance criterion is how to assess a process such as seeking ideas and experimenting with musical options? If there is an answer then it must lie here in the *evidence guide* section of the unit.

Here in the *Evidence Guide* section under *method and context of assessment* the following propositions are suggested as evidence gathering methods; a process diary, oral questioning on compositional techniques, portfolio of work, case studies as a basis for discussion of music writing ideas to assist the assessor to evaluate musical processes used "by the candidate in generating, evaluating and realising creative ideas". This evidentiary advice appears to address the problem raised by the industry informant, apparently turning what might be seen as a good learning idea into an assessable criterion.

This practical approach to the assessment of creativity may only hold for this sample composition unit. However, though the quality of assessment advice may not be consistent through the Units of Competency in the Training Package, perusal of this unit manifestly indicates that creativity can be specified and accommodated within this particular CBT format.

Convergence of the unit, *Create Original Music*, with data sources

Here, particularly in *element 2*, one cannot but be reminded of the Mozart literature and the notion of ideas as springboards (Einstein 1971) evoking again notions of playing and imagining (Csikszentmihalyi 1996), (Conversation 3, p. 275), (Conversation 5, p. 287), (Conversation 6, p. 298).

The specification of evaluation, articulated especially in *element 4*, pervades the unit. This evokes a theme that emerged in the creativity literature, for example in Tchaikovsky's account of composition as a three phases process; preparation, inspiration and critical examination (Tchaikovsky 1997, pp. 180-83). The significance of evaluation appeared again in conversation with a very successful composer of film and other commercial music who noted, almost as an aside, "I guess I have learned to be self critical" (Conversation 5, p. 287). The need for this exact quality resounds thus: "Being rational and self-critical is very hard and sometimes impossible. It is nevertheless the key to anything deserving the label creativity" (Jarvie 2009).

A slightly more removed observation on evaluation came in conversation with an artists manager who remarked that for only a very few is creativity spontaneous, and even if you have it "you have to work at it – to develop it. You have to identify it and nurture it" (Conversation 4, p. 280).

Linked with the rational concept of evaluation is the notion of intentionality, another aspect of creativity in this unit that converges with the literature. The conception of intentionality is evident in *performance criteria* 1.1 and 1.2 where the compositional activities are framed in terms of "planned outcomes in making the creative work" and, "elements relevant to own work and intended outcomes". As noted in the literature enquiry, the creative action, in the context of commercial popular music at least, is likely to carry with it an intention of bringing into being an as yet unrealised musical product that will have commercial value. Further, as noted above, intentionality emerges clearly in Briskman's modified teleological view of creativity (Briskman 2009, p. 38), again a view that embraces a creative process constrained by a specific intention to create something particular.

7.8.2. Provide Tuition for Composition

The Unit of Competency*, Provide Tuition for Composition*, at **Appendix C-2**, embraces creative skills for tutors and their students. Elements most relevant to creativity in the unit are 1, 3 and 6.

Element 1. Develop own composition practice. This element has only one performance criterion for creative skills.

Performance Criteria 1.1 specifies the creative development of the tutor to maintain expertise. In the light of comment apropos *element 3* below it would seem evident that a tutor would model a creative approach to learners.

Element 3. Tutor learners in aural skills. This element has one performance criterion for creative skills.

Performance Criteria 3.2 specifies encouraging learners to listen critically to their own and others' compositions to stimulate creative possibilities.

Element 6. This element, extend students' creative development, has seven performance criteria, suggesting the importance of creativity in this unit.

Performance Criteria 6.1 to 6.7 break down this element into tasks summarised thus

- demonstrate techniques using specific methods to stimulate aural imagination to work freely
- communicate with constructive feedback to maintain learners' enthusiasm and experimental and creative expression
- develop learners' critical listening
- inspire learners to explore ideas, cultures and creative imagination
- extend learners with work of others and to work with others.

Range of Variables

The range statement for this unit does not specify creativity.

Evidence Guide

The evidence specified for creativity seems to replicate the unit above, *Create Original Music*, and appears not to be modified for teaching. The method and context of assessment covers instruments such as lesson plans.

Convergence of the unit, *Provide Tuition for Composition*, with data sources

The creative components identified in this unit cohere with pedagogues such as Bloom (Bloom et al. 1993), and with accounts from the conversations advocating an encouraging and mentoring approach for assisting learners to develop creative skills in a safe environment.

Specifically, that is an environment in which experimentation is encouraged. For example in the words of a singer and music teacher:

> Experimentation must never be criticised… If every time you do something original the teacher says no that's not what's written there, that will squash creativity pretty quickly. There has to be room to explore and experiment (Conversation 3, p. 275).

A very personal point of view, worth repeating, emerged in conversation with a contemporary commercial composer, on the worth of an encouraging environment for creativity:

> I think my creativity stems a great deal from my encouragement to actually just try it, and the encouragement to believe that I can do it. And that happened for me in state run music camps that I went to as a kid. And there were some terrific lecturers who didn't quash anyone, from the most inept to the most superb. They encouraged and supported every kid in this music camp. And I went there two or three times a year for a few years. And it is that encouragement that allows you to take risks and to do things that otherwise you would not do and to believe that what you are doing is OK.
>
> Now, as a result, when I sit in front of my computer and my keyboard, I believe I can compose music. And I believe that what I put down and what I express has value and is good (Conversation 5, p. 287).

In addition to an emphasis on encouraging and inspiring learners, the unit also draws attention to the balancing need for constructive feedback. Though likely to be an important aspect of learning for creativity, the benefit of criticism, aside from self-evaluation, was not strong in the literature sources. It was raised however in at least one of the conversations, though essentially in relation to technical skill building rather than creative skills;

> …building up the technical facility and practising things and being corrected on it. For example, for a pianist playing scales… But in terms of teaching them to be musical, to be creatively musical you're probably better off having them play pieces well within their technical ability and letting them explore the range of parameters within that (Conversation 3, p. 275).

The need for modelling the habit of critical evaluation for learners is explicit in this Unit of Competency as well as the need for the tutor to provide critical feedback to empower learners.

7.8.3. Perform Music as a Soloist

The unit *Perform Music as a Soloist* at **Appendix C-3**, was selected as a performance site for creativity. Compared to the composition units, this unit is parsimonious in creativity content, with only *element* 3 having the slightest relevance to creativity. There is no single *element* dedicated to expressive skills. The unit barely distinguishes performance as a creative skill, though it does specify aural imagination. Nevertheless, the emphasis of the unit rests on practical performance related tasks.

Element 3. Perform as a soloist.

Performance Criteria 3.2, 3.5 and 3.7 specify imagination and innovation, effective expressive skills and critical listening.

Range of Variables

This range statement has no headings for creativity. However critical listening, using aural imagination and improvisation are listed under various headings.

Evidence Guide

Critical evidence includes innovative interpretation and expression in a relatively weak statement. Yet this is the strongest reference to creativity in the unit. Extending musical boundaries is listed in the general evidence section, however this may apply to extending techniques, and, or repertoire as much as to aural imagination.

Convergence of the unit, *Perform Music as a Soloist*, with data sources

This unit does exemplify convergence to the extent that performance receives very little attention as a site of creativity in the literature. It has been argued in the study, with reference to the work of specific artists, for example Janis Joplin, that performance is a dynamic site of creativity and performance also emerges in the industry conversations as a creativity site:

> From the performer's point of view… if you are performing already written music the interpretation of that music is where the creativity is applied… All of those little nuances are not specified by the composer, so you have to draw on a number of things. One is other people who may have performed it, from recordings. But if you're fresh to a piece of music it's always going to be your own interpretation of that and that's really where the creativity comes in (Conversation 3, p. 275).

That view of performance as a creative site is not supported in the content of *Perform Music as a Soloist,* nor is it especially supported by the literature. The lacuna in this site of musical creativity warrants further investigation beyond the present study. It would be difficult to imagine a Unit of Competency for a dramatic actor, for example, having so little focus on creative interpretation or indeed creativity of any kind. Certainly, as elaborated in Chapter Three, performance studies, that is taking performance itself as the site of enquiry, occupies a strong, and somewhat controversial place in the scholarly music literature.

7.8.4. Provide Instrumental/Vocal Tuition

The unit *Provide Instrumental/Vocal Tuition* at **Appendix C-4** has some creative content. Rather incongruously, there is more coverage of creativity in this unit that in the previous unit, *Perform Music as a Soloist.* With 11 *elements*, of which 3 have creativity, or expressive

components, this is a relatively long unit. One element focuses on expressive skills. Otherwise creativity components are dispersed through the *performance criteria*.

Element 6. Teach expressive skills

Performance Criteria 6.1, 6.3 and 6.5 specify

- discussing expressive options
- experimenting with expressive style through phrasing and shaping
- developing sensitivity to and appreciation of appropriate style and nuance.

Less explicit creativity components appear in the *performance criteria* attached to *elements* 7 and 8. For example; 7.4, teach learners to listen critically and to discuss a range of performance interpretations; 8.3 provide opportunities for learners to plan a performance program; 8.8 encourage learners to discuss techniques for communication with an audience to express musical ideas.

All of these tasks are associated with creativity though, as expressed here, are not explicitly stipulated as creative. Planning a performance program, for example, would certainly call upon creative skills. Content selection would need to be created to keep an audience engaged, or catch the attention of a record company, or accommodate the purpose of the program or project whatever it might be.

Range of Variables

The range statement contains no creativity components

Evidence Guide

Creativity components appear under the headings:

Listening – assisting learners to listen critically to the creative work of others to inform their own work, and: assisting learners to adjust creative work in performance to achieve the required sound.

Creative – demonstrating originality and innovative approaches to coaching, interpretation and/or improvisation of music

Expression – facilitating learners to phrase and shape music appropriately and creatively

Method and context of assessment – these methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas.

Convergence of the unit, *Provide Instrumental/Vocal Tuition*, with data sources

Explicit components of creativity, consonant with the literature, are specified both within the locus of the tutor as well as creativity skills to be imparted to learners.

Though this unit is, in a sense, once removed from the unit *Perform Music as a Soloist,* and creativity skills are specified for the tutor, the specified creativity skills to be imparted to the learner performer could be included in the unit *Perform Music as a Soloist*. In particular, the presence of an element for expression in this unit seems appropriate, while its absence from the unit *Perform Music as a Soloist* is problematic. A connection is also evident here with the idea of expression, or that creativity is one's personal expression, drawn from the first industry conversation concerning creativity (Conversation 1 2003).

7.8.5. Develop and Practise Improvisation

Unsurprisingly, the unit *Develop and Practise Improvisation* at **Appendix C-5** is amply invested with specifications of creativity. This is a basic training level unit for developing improvisational skills, possibly with others, though not necessarily performing publicly.

Elements. Each of the 6 elements in this unit embraces areas of creative activity. They are cast in terms such as, investigate and experiment, improvise, generate, express and evaluate. Demonstrating the integration of technical and creative skills *element 5,* the only technical element, specifies the use of equipment and technology to express ideas.

Performance Criteria reflect the elements in groups that almost exclusively specify creative tasks. This covers actions such as

- experimenting with harmony
- inventing melodic lines
- exploring different structural elements of music for use in creative work
- using practice and performance opportunities to experiment with interpretation and extend improvisation
- experiencing, and experimenting with, music of different styles and periods and different instruments
- seeking ideas for starting points.

Range of Variables

The range statement presents a rupture with the previous section. Though improvisation is mentioned five times and aural imagination is mentioned once, the general areas appear merely technical and pedestrian compared to the preceding sections.

Evidence Guide

The candidate for assessment must demonstrate an understanding of the relevant conventions for improvisation, originality and innovative approaches in improvisation, and understanding and expressing appropriate musical nuance, and critical listening and aural imagination in developing the musical material in performance.

Convergence of the unit, *Develop and Practise Improvisation*, with data sources

The language of the first section of this unit evokes aspects of creativity from the literature such as playing experimenting and imagining (Csikszentmihalyi 1996), (Conversation 3, p. 275), (Conversation 5, p. 287), (Conversation 6, p. 298). This specification of creative skill demonstrates a relationship with Unit 1 of the sample, *Create Original Music.*

The specification of evaluation also reflects the specification of creative skill in Unit 1 and comment made there about convergence with data sources concerning evaluation applies equally to this unit.

7.8.6. Perform Improvisation for Audience

The unit *Perform Improvisation for Audience* at **Appendix C-6**, like its relative above, abounds with creativity components. This unit indicates a higher level of skill as a member of an ensemble in a live audience situation. Solo and group performance is integrated here. Consequently, in addition to considerable improvisational skills finely honed musical team work is specified for this unit. Evidence of integration of performance and musical composition are required for this Unit of Competency.

Elements. All 4 elements in this unit specify creativity. However, the content of the elements here is distinct from the previous unit, which specified more private developmental tasks. The elements in this unit relate to improvisation for an audience in an ensemble performance.

Performance Criteria in this unit specify activities such as

- confirming ideas with the group
- establishing starting points in the work

- confirming length and scope of the performance
- ensuring own contribution enhances performance and
- supporting others contribution to enhance performance
- listening and responding effectively through the work
- adjusting performance as required
- providing and responding appropriately to cues in the performance
- exploring and realising performance potential with others in content, style and structure
- continuously evaluating the work to realise potential.

Range of Variables

The range statement again brings very little in terms of creativity. Rather it seems to be a generic statement that is not well aligned with the element section of the unit.

Evidence Guide

Unlike the previous unit, the evidence guide here incorporates a section called creative expression. This specifies creative skills such as originality and innovative approaches in improvisation, developing musical themes, listening critically to evaluate and adjust work, phrasing and shaping music, demonstrating appropriate musical nuance and working creatively with individual differences. Further references to creative matters appear elsewhere in the guide.

Critical aspects of evidence again reinforce the creative skills that must be demonstrated. These mandatory skills include responding creatively to aural or written cues as required, listening and using aural imagination to develop the musical materials, collaborating and communicating in musical and ensemble performance.

Convergence of the unit, *Perform Improvisation for Audience*, with data sources

There is much to comment on the match between this unit and the data sources. The unit demonstrates the integration of seemingly opposing musical planes representing individual expression and collective cooperation. That dialectic is very clearly articulated in an industry conversation. In that conversation, (Conversation 1, p. 261), quoted in Chapter Six, a line was drawn between creativity on one hand, defined as personal input, and supporting performance functions on the other, such as performing in an accompanying, or backup position. In this instance the personal, or creative action is enacted as a solo agent in the improvisation segment

of the performance, while the supporting, or more set action is enacted as member of the group in the remainder of the performance. The informant imbues the second function with a military metaphor:

> …It's pretty easy to measure standing in line and saluting because there's not personal input – there's a standard. But it is hard to use the same sort of analogy to quantify initiative. It depends what the conditions are and what pressures you're under. And it depends what's deemed to be appropriate after the event. So it's a sort of retrospective thing that's not apparent before the conditions manifest themselves. So to even think about assessing music – weighing up these things. They almost have a different time to be done. Where initiative's involved you almost have to wait to weigh it up, like a past event, whereas things without initiative, because they're not new, they can be weighed up immediately (Conversation 1, p. 261).

In this account creativity, personal input, expression, or imagination are rejected as potential dimensions for assessment in music on the grounds of their subjective character. Moreover, the informant proposes that creative processes, composition for example, may only be judged after the event. Thus two disjunctions are identified here. The first occurs between the poietic and the trace and the second between individual expression and performing as part of a group in a cooperative, or support role.

Although the view that creative dimensions should not form part of music assessment might be contested, nonetheless a difficulty of assessment for creativity under traditional examination conditions is sharply identified. Further, unlike personal input, the mechanistic aspects of performance are perceived to have a standard, an issue to be reprised in the concluding chapter of this study. Evidently the informant takes the view that the trace, or product can be assessed though not the process. This, however casts self expression and initiative beyond the pale of valid assessment.

This recalls a similar view, though from a different perspective, for an informant comparing assessment of a popular guitarist with that of a classical guitarist. In that discussion, also quoted in Chapter Six, it was remarked that creativity is neither comparable nor quantifiable and is therefore not assessable:

> In terms of someone who's assessed production works and things, its much, much easier if you have a course that has thirty students all using a computer software program to produce a record or one song as a recording. It's easier to give them a twenty five question multiple choice exam which tests their technical knowledge of the technology than to actually sit down and think which song…which record is better than the other records, because they're so different.
>
> …its easy to separate marks for technical…it's easier, if you're a classical guitarist. It's easier for the assessor to sit there and note how many mistakes you've made and note how well, or technically proficient you are with guitar and how well you play, because it makes it more like an objective process. It's more like mathematics. It's like saying well… Did they get the pattern right? Did they get this right? And creativity, that's more of a

> qualitative… and creativity is more of a subjective value judgement. And how do you mark that? …It's a minefield (Conversation 6, p. 298).

Thus assessment should be reserved for technical skills because they could be considered quantifiable. This view resounds with the creativity as product account proposed by Jarvie, who absolutely challenges the concept of creativity. "Presumably, creativity is interesting because there is something going on in creative people that results in objective results: creations. What are the objective achievements" (Jarvie 2009, p. 43)? And further: "Creative achievements are unique events; explanatory progress is made only with repeatable events. Hence there is something inexplicable about creativity" (Jarvie 2009, p. 46).

Evidently, in this view the inevitable creative quality of unpredictability poses an insurmountable problem because of its apparent incompatibility with the need for measurement. Additionally, this challenge might be understood to mitigate any form of pre specified or outcomes based learning scheme. Indeed taken to the extreme, or logical conclusion it would seem to militate against any form of initiative in learners being recognised within assessment, because initiative and its sibling, creativity are inherently unpredictable. However, experience suggests that this is not an argument for banishing creativity from assessment. Ultimately, if music performance and creation were judged only upon technical factors, then robotic performers and song writers would win all acclaim, not to mention competitions. Countering this are terms such as "flair" and "stylistic insight" (Australian Music Examinations Board 2011) in this case used to describe dimensions of assessment, or terms such as expressive, imaginative, fresh, luminous and other terms used commonly in music reviews and speaking in judgement of creativity.

Another aspect of the unit points to a feature strongly evident and noted in the literature enquiry, where theorists commonly frame human creativity in terms of paradox (Boden 2004, p. 1), (Csikszentmihalyi 1996, p. 10), (Deleuze & Guattari 1994, p. 199), (Jarvie 2009, p. 43), or at least encompassing significant elements of paradox (Hausman 2009, p. 15), (Briskman 2009, p. 31), and Ulam 1976 in (Dennett 1995, p. 223). Creativity, in entertaining paradox, is also associated with danger and chaos (Deleuze & Guattari 1994, p. 202), (Harré 2009, p. 277).

This brings some relief to the assessment dilemma, raised in the above quotation. Ergo, the synthesis of paradox is a creative constituent in this particular site of creativity. Here in a single work the performer is called upon to demonstrate individual creativity within given customs, and then in the same event to resume a collective role in the group, to support individual performances of other ensemble members and in addition to enter creatively into the group performance. In this case it is a skill requirement for the performer to negotiate the personal and

the collective aspects of creativity in a single performance. Thus the performer is required to demonstrate three categories of creativity through individual creativity, group creativity and supporting the creativity of another, or others. In such circumstances it cannot be acceptable to resile from assessment and relegate it to the too hard file. This, seemingly manufactured dilemma, evokes an earlier allusion to thick description. Thus, to borrow from Geertz, commenting on the argument that if complete objectivity is unavailable, as it must be in the case of assessing creativity, then:

> …one might as well let ones sentiments run loose. As Robert Solow has remarked, that is like saying that as a perfectly aseptic environment is impossible, one might as well conduct surgery in a sewer (Geertz 1973).

Consequently, if creativity is to be accommodated in music learning and assessment, as it properly should, neither extreme is acceptable. It is relevant here to reprise Molino, and refer to the role of receiver in the context of this Unit of Competency (Molino 1990). The unit is directed to performance for an audience, in which case it would be the task of an assessor to understand the cultural mores of the performance and the range of creative freedoms and constraints that could be exercised while, at least to some degree, meeting the expectations of an audience for the style of music being presented.

To this end the range of custom and practice against which to predict reception should be considered. This calls to mind the earlier example of Wagner. Though certainly no popular commercial figure, the creative licence he took in pushing the tolerance of his audiences serves to illustrate the point raised here. Inevitably, creativity implies change and change implies risk. Thus risk might be said to be part of the creativity toolkit, and the cognitive space that musicians learn to inhabit and work with. In this Unit of Competency especially, that risk is measured out publicly in real time, though within the given constraints of musical style and audience expectation, or more precisely in this case, the audience's capacity to “dig” the sound.

7.8.7. Develop and Implement Sound Production for a Recording

The unit *Develop And Implement Sound Production For A Recording* at **Appendix C-7** unites technical and creative skills for the production of a recording in a recording studio.

This unit encompasses technical and creative skills. It embraces a different technical and creative relationship in that the technical skills under focus are not for music writers or performers. Rather this is for studio technology, a form of creative technology nonetheless. In a sense this creative site is once removed from, though intimately connected with, the performing

artist, or artists. The role described here is one of artistic and technical leadership, broadly akin to the role of a conductor, or artistic director.

The producer's primary task is to realise the distinctive character of the sound. Producers' responsibilities may also extend to the choice of performers and repertoire.

Elements. Of the 5 elements in this Unit of Competency, the following 4 address creativity: 1 embraces developing the vision for the recording project for required artistic outcome, 2 identifying artists to realise the vision, 4 undertaking the recording session, and 5 evaluating the process for future improvement.

Performance Criteria for the above elements specify

- musical vision based on trends, markets, styles and artists
- repertoire
- applying music, technical knowledge and sound design possibilities to develop the sound design, and underlying artistic style and sound concepts for the recording
- achieving consensus on artistic values
- securing the appropriate talent
- confirming artistic outcomes
- negotiating with artists
- considering individual perspectives
- recording parts to ensure artistic vision
- evaluating the process with feedback from relevant sources.

Range of Variables

This unit is interesting because, of all those in the sample, its elements embrace the widest scope, encompassing the union of technical, management and creative skills. As in other units however, that breadth is not maintained consistently through other parts of the unit.

In this section the only reference to creativity is under listening. There, aural imagination is specified, to envisage sound possibilities and ways to achieve them.

Evidence Guide

This section takes a more fulsome view of creative dimensions of studio recording. There is a wide range of detailed creativity skills specified under headings such as listening, creative and expressive. Critical aspects of evidence include effectively identifying sound potential and developing and producing a creative and appropriate sound concept.

Convergence of the unit, *Develop and Implement Sound Production for a Recording*, with data sources

This type of creativity is discussed in the industry conversations. However, evoking the "fashion" aspect of the popular music industry, an essentially pop music paradox was raised concerning specific record producers. As noted in Chapter Six, these were producers who were very much in demand for the "sound" they developed that marked the early Kylie Minogue era:

> And so if you go back to those days what you find is that a lot of the pop acts sounded the same. You have the same arrangements, the same rhythm fields; the same sounds, the same techniques used to create those sounds (Conversation 2, p. 271).

Here another creativity paradox emerges from the tension of the fashion phenomenon sensed in this statement. Inevitably, the popular music industry shares a commercial context with other fashion industries. Thus creativity is both constrained and enabled by market demands, for change and novelty on one hand, and expectations of the familiar on the other. Creative change then is moderated by the pull factor of demand, while simultaneously working to push demand towards new styles and products, making the creativity factor crucial for exploiting the tension between holding to the familiar while craving the new.

This aspect of popular commercial music was also remarked by Sawyer, who posited different quanta of originality on the basis that, for example, performers of country songs "shift their songs to suit shifts in consumer taste" (Sawyer 2006, p. 231). Allowing for the complexity of commercial music however, he emphasises that such an approach may not apply to other musical genres, such as alternative rock, or rap because, in his estimation, they do not in the main follow the same assembly line process of production (Sawyer 2006, p. 231).

Nonetheless, it seems likely that dynamic interrelationships between popular commercial music and music markets have significant implications for creativity. This point came up again in other conversations where different types of creativity were distinguished by a number of industry informants. As noted in Chapter Six, evidence of conflicted views on creativity emerged, thus:

> To me creativity is obviously subjective and I can't help but feel that what's creative to one person is not creative to another. And I'm also assuming that the opposite to creative is…derivative (Conversation 5, p. 287).

What is not certain in this discussion is the extent to which the so called "derivative" form of creativity might claim success in a commercial sense, to the extent suggested above, for example, in Sawyer's account. Presumably these matters need to be considered, though they dwell somewhat covertly beneath the assessment of this and certainly in varying degrees also in other Units of Competency of this purposive sample.

7.8.8. Develop Self as Artist

The final unit in this sample, *Develop Self as Artist* at, **Appendix C-8**, is a foundational unit for all sound artists. It might be described as a hold all to support any, or all of the units in the sample. It is likely that this Unit of Competency, depending whether it is mandatory or elective in a qualification context, might be bundled with other units, in particular for learning, but also for assessment purposes.

A clear and critical dimension of skill in this unit, that can be drawn out for attention, is that of developing knowledge of, and experience in, the domain. While inevitably this fundamental knowledge factor is present in each of the preceding Units of Competency, to varying degrees, other areas seemed more conspicuous. Still, many of the specifications listed below for this unit, and above for other units in the sample, inform developing knowledge of the domain. Yet in this unit every section explicitly specifies the integration of learning and creative skills. Consequently the unit appears to form a general blueprint for entering the musical domain.

Elements. Four elements in the unit encompass an all-embracing underpinning of artistic endeavours for a career in music: 1 is technical, 2 artistic and expressive, 3 *develop own creative voice* is palpably personal and creative, and, 4 evaluative and self reflective. This unit appears to contain the foundational artistic specification. Thus it may be used in a holistic way, as a centre around which units for specific skills might be grouped for a course, and/or a qualification, or assessment. The unit attempts to capture what it is to be a creative artist, and specifies general skills that otherwise remain implicit. The unit might well apply to other areas of expressive arts.

Performance Criteria specify:

- personal planning,

- technical and artistic development through practice, learning, experimenting and evaluating
- exploring and experimenting with the capabilities of instruments, tools and technology
- applying knowledge to inform and improve artistic skills and practice
- developing and assessing the development of artistic skills
- exploring and experimenting with new ideas for making or interpreting music
- taking risks in developing new ideas
- exploring new styles, artistic options and new ways of working
- using technology to practise originality and expand creative work
- experimenting with, and developing, new interpretations
- combining musical elements and styles using expressive techniques.

Range of Variables

Two instances of creativity are evident in the range statements. These are experimenting with music making and using aural imagination to develop interpretation. However, these are really isolated and do not match the concentration of creativity specified in the elements and associated performance criteria in the unit.

Evidence Guide

The evidence guide specifies the demonstration of creative skills and attributes such as:

- originality and innovative approaches to the performance
- interpretation and/or creation of music
- extending musical boundaries
- using individual discrimination
- experimenting with and developing new interpretations
- ways of combining musical elements and expressive techniques and styles
- using unfamiliar styles
- exploring and using new technology and taking creative risks to develop individual voice.

A critical aspect of evidence is taking responsibility for one's own artistic and creative development, a theme that is solidly laid down throughout the unit.

Convergence of the unit, *Develop Self as Artist*, with data sources

The breadth of this Unit of Competency allows many points of convergence with data from the literature enquiry and industry conversations. Convergence in the artistic and creative skills specified in the unit have been articulated in analysis over the preceding 7 Units of Competency. Each of those Units of Competency have some aspects of this one. Among these dimensions of creativity are experimentation, risk taking, exploring, trying things out, seeking instruction and constructive criticism and exercising self criticism and evaluation.

The prime aspect of convergence in this unit is its overall specification of the integration of both learning and creative skills, an issue of fundamental significance in the literature enquiry. This is, as Boden would have it, inhabiting the cognitive space of the domain (Boden 2004, p. 61). Sawyer, as already quoted in Chapter Five, would have it thus:

> Like all creativity, musical creativity depends on a shared system of creative conventions, and no one can create music without first internalizing the rules and conventions of the domain (Sawyer 2006, p. 239).

Supporting this with a more embodied perspective is Dartnall's notion of the significance of knowledge "about" (Dartnall 2002), an idea that finds fertile ground in music, where technical knowledge must cohere with the physical in hearing, and the imagination to organise, or interpret the sound material creatively. Also evoked is Frank Zappa's observation that music, is "a process of organisation…very much like architecture, as long as you can conceptualise what that organisational process is you can be a 'composer' – in any medium you want" (Zappa 1997, p. 195). Notwithstanding this somewhat cerebral take however, Zappa most certainly did more than conceptualise.

7.9. Findings from the case study investigation

In this chapter a close study of the specification of creativity in Units of Competency from the *Music Industry Training Package 01* explored the question, can creativity be accommodated in the competency paradigm? This purposive sample of eight Units of Competency forms the case study. The findings here address questions framed for the industry conversations.

7.9.1. The degree of creativity specified across the sample units

Overall the specification of creativity in the eight sampled Units of Competency is evident, though inconsistent. This may be a reflection of the different sites of creativity sampled in the

selected units. A presumption that creativity holds more importance in some areas than in others is demonstrated across the sampled units. This fact is noted in comment upon the relative absence of creativity in some sections of the unit *Develop Self as Artist.* Inconsistency is evident both within and across units as indicated in commentary on individual Units of Competency. For example, as noted, why would the creative skills specified for the learner in *Provide Instrumental / Vocal Tuition* not also be found in the unit *Perform Music as a Soloist.*

However, creativity is specified in each of the units, at least in the *Elements* and *Performance Criteria* sections. A similar level of consistency in specifying creativity is not evident in other sections of the units. The *Range of Variables* statements in particular appear to lack consistency with other sections in a number of the units. It would appear that cutting and pasting has been applied in those parts of a number of the units. As a result some parts of the units appear generic while other parts appear bespoke. Some instances, were identified where creativity was evident in the early sections of units, while absent from the range statements in the same units.

Overall there seems to be more consistency in the *Evidence Guides*, especially, as might be hoped, in the *Critical Aspects of Evidence* sections, though some inconsistency was evident.

7.9.2. The capacity of the competency approach to develop creative skills

Each of the Units of Competency in this sample can support training and assessment for creativity in music. The degree to which this is so, nevertheless, is inconsistent within and across all Units of Competency in the sample. The purpose of this selective study, however is not to critique the Units of Competency. Rather, it is to ascertain the potential of the system, represented in the selected sample of Units of Competency, to advance creative skills. Being the primary research question for this study, this is given further attention in the following, concluding chapter.

7.9.3. What changes might be considered to increase the capacity of any of the selected standards in developing creativity?

In general this investigation of the selected Units of Competency suggests that more attention could be given to gaining consistency both within and across units in specifying creativity. This could be realised by scrutinising individual units to ensure depth in specifications of creativity and consistency of specifications across all sections of each Unit of Competency. Scrutiny could be applied to sample units with the aim of developing some benchmark units that could be escalated across related areas of practice to improve congruence with related units. As well as

promoting efficiency of effort, distribution of key creativity specifications across related units would improve consistency.

Though the grouping of units is really beyond the scope of the present consideration, it appears that some units are more specialised and others more generic. It seems likely that these could be grouped more serviceably to ensure more comprehensive coverage of creative skills.

7.9.4. To what extent does data from the literature enquiry and industry conversations correlate with any aspects of the sampled Units of Competency?

A significant level of correlation was evident between information from the literature enquiry and conversations with music industry practitioners. As detailed in analysis above, the level of convergence identified here between these sources and the selected sample of units from the *Music Industry Training Package 01* is wide-ranging. Additionally information found on music education more broadly, in Chapter Three, bore relevance to the Units of Competency. The deep and pervasive presence of the AMEB system was mentioned as one that sets assessment apart from teaching and learning, through a self-directed, discrete examination system.

Still, assessment is not so essentially separate from teaching and learning in the competency system. It is possible for assessment to be integrated with formal institution based learning in the competency system. It is also possible for assessment to be undertaken separately from the learning process. Also mentioned in Chapter Three, though in contrast with either the AMEB or other competency based assessment systems, music education originated in a practical apprenticeship oriented system of master musician and pupil, or pupils. In many different cultures, such as in the Indian classical tradition, this model remains.

7.9.5. Is creativity more important in some areas than in others and if so in what way?

The manifold categories and dimensions of creativity identified in the literature enquiry and industry conversations indicate the conceptual complexity of creativity. While is likely to be more overtly situated in some areas than others, diversity across spheres of musical activities and cultures makes it impossible to calibrate quanta of creativity. For example, creativity was less fulsomely specified for performance than for either composition or improvisation. Moreover, the unit covering producing sound recordings specified creativity more extensively than might be expected for an ostensibly technical Unit of Competency.

Essentially, creativity is only one dimension of musical skill, though it was evident in the sample. As well, it is the most difficult of skills to specify and to quantify. Further, attention given to a specific dimension of music practice, like creativity, must depend upon the priorities of developers. Consequently, given the industrial emphasis of the VET sector, other more concrete dimensions are likely to gain precedence for the attention of developers.

The relative importance of creativity in different areas of music practice was evident, for example the relative lack of attention to creativity in the area of performance. Improvisation for example combines performance and composition, thus bringing added dimensions to the consideration of creativity. Evidently such differences, if or where they exist, can be accommodated in Units of Competency covering particular areas of practice, or those covering areas that combine different areas of practice. In contemporary popular music, composition and performance are more likely to be merged than is the case in the classical tradition. That separation between composition and performance in the classical tradition reflects the split between the two areas of practice in traditional music education elaborated in Chapter Three.

7.10. Conclusion

In this chapter analysis of the case study sample addressed the primary research question; can creativity be accommodated in the competency paradigm? Specification of creativity in the Units of Competency was analysed and considered for convergence with accounts of creativity garnered from the literature and industry creativity enquiries. Analysis of each item of the sample found varying levels of convergence with the creativity information sources, with at least some convergence being evident in each of the sampled Units of Competency. Moreover, in most of the sampled items creativity was found to be specified sufficiently to be applied to the design of learning programs and assessment. To that extent the case study analysis found creativity to be accommodated in the competency paradigm.

8. Research findings

Findings of the research are summarised in this chapter, guided by the creativity questions. Also presented is a summation of the information and evidence systematically gathered through this study, and the significance of the case study analysis.

The case that creativity is a skill and therefore can be learned and assessed, has been incrementally explored in this research. Aligning enquiry for this research are the creativity questions that follow, and the findings of the case study analysis.

8.1. To what extent can creativity be described and/or defined?

Evidence has been collected in this case study through multiple streams of enquiry. A few definitions and many accounts of creativity have been investigated. Overwhelmingly, the literature surveyed finds creativity taxing to describe and virtually impossible to define.

> Scholars have had a difficult time attempting to characterise creativity. This is partly because it has been virtually impossible to offer an unambiguous and broadly agreed-upon definition, and partly because the phenomenon itself has proven extremely hard to isolate empirically. Moreover, creativity, especially in the arts, has a deeply entrenched mythology, whereby it is construed as a mysterious, unknowable process. Such a perspective has done little to benefit the position of creativity as a research topic, many investigators simply opting to ignore it and focus on more immediately tractable problems (Williamon et al. 2006, pp. 164-5).

Notwithstanding the alleged impenetrability of the subject, a number of distinguished scholars have turned their attention to the matter. Such scholarship continues to enhance possibilities for informed appraisal of creativity. Some creativity theorists, of perhaps a more cautious bent and greater attachment to static methods, have pressed for creativity to be proscribed, claiming that while creative products can be judged, creativity cannot (Jarvie 2009, p. 46). This proposition does not suit artistic domains.

Countering that position of singularity, Molino's model, delineated in Chapter Three, has been preferred. This semiological model views creativity as a tripartite process in which the artist, the product and the audience are all potential sites of investigation bound by the poietic process in which the work, or trace, is conceived and transmitted by the artist, and the esthesic process in which the work is received and interpreted by the audience. This dynamic approach is well suited to the enrichment of music learning and assessment for creativity.

Industry practitioners unhesitatingly defined creativity in practical terms; one's personal input, demonstrating readiness to try things out, trying different things, presenting ideas in new ways, and expressing emotion. These descriptions and definitions of creativity move from theorising

into practical terrain. Nevertheless, these practical statements mirror to a remarkable degree much of the theory. For this study, aiming to investigate the extent to which creativity might be embedded in the competency paradigm, this practical approach was fitting. That is not to diminish the importance of enlisting creativity scholarship to the task, to provide triangulation, and to draw on the most significant insights available, within the scope of a study such as this.

As indicated in the previous chapter, perusal of the selected sample of CBT items reflected the kinds of practical terms used by industry informants to specify creativity. Further, the creativity items also reflected much of the theorising garnered from the literature enquiry.

8.2. How is creativity apprehended, perceived and understood?

The vexatious conundrum of defining, or even accounting for creativity, has long confounded our understanding of creativity. Historically Guilford's work of the mid twentieth century remains a significant milestone in modern theorising, placing creativity decisively in the scholarly discourse (Pope 2005). This marked a new apprehension and perception of creativity as a study warranting scientific, or at least scholarly, attention.

Countering mythic genius and purely innate talent theories, the link between creativity and extensive domain knowledge is robustly asserted in the literature. Unsurprisingly, the same link is remarked by industry practitioners who informed this study. Typical of that apprehension is Edison's pragmatic dictum, that "...genius is one per cent inspiration and ninety nine per cent perspiration" (printed in *Harpers Monthly* September 1932), and Csikszentmihalyi's later assertion that, "…a genuinely creative accomplishment is almost never the result of a sudden insight, a lightbulb flashing on in the dark, but comes after years of hard work" (Csikszentmihalyi 1996, p. 1). This view is shared by industry practitioners (Conversation 5, p. 287), (Conversation 6, p. 298).

Complexities such as paradox and ambiguity are associated with creativity (Boden 2004, p. 1), (Csikszentmihalyi 1996, p. 10), (Deleuze & Guattari 1994, p. 199), (Jarvie 2009, p. 43), and also danger and chaos (Deleuze & Guattari 1994, p. 202) and (Harré 2009, p. 277). Still, the importance of limits is remarked by Sculthorpe, emphasising the need to distil the compositional elements from overwhelming possibilities available (Hughes 1998). Keostler also declared the need for constraints to clarify and simplify the creative process thereby avoiding having creativity stifled by inestimable choice (Koestler 1975). The need for an environment in which risk taking is encouraged rather than criticized was often mentioned as an important prerequisite for building the confidence required to undertake the risky behaviour implicit in

creativity (Bloom & Sosniak 1985) (Conversation 2, p. 271), (Conversation 3, p. 275), (Conversation 6, p. 298).

Analysis of the CBT creativity items, in the previous chapter, showed creativity to be specified in a variety of ways in the various Units of Competency sampled. Moreover, as detailed in the study of the competency items under "convergence with data sources", it was often specified, for the purpose of learning and assessment for creativity, in ways that reflected insights drawn from enquiry and detailed through the study.

8.3. What is the significance of creativity for "productive practice / success" in the context of commercial music markets?

Relevant music sources surveyed in this study overwhelmingly cast creativity as a critical dimension of music in the popular music industry. Given the comprehensive journey through creativity presented in this study, however, this general statement might be expected to require some refinement. Speaking feely and enthusiastically about creativity, practitioners articulated a range of perceptions. Some evoked values found in the literature, such as those eschewing some types of popular commercial music for its lack of authenticity.

In this discussion the different types of creativity proposed suggested that creativity is not only a quality issue, but also one of proportion. Still, as already noted, it is difficult to measure creativity in quantitative terms. Nonetheless it emerged that some genres or styles of music are considered more creative than others. Though apparently bizarre, this might lead to the conclusion that musicians need to monitor creativity levels to meet audience expectations. This also reflects the problem of generalising and possibly underlines the disinclination to consider the assessment of creativity, since its place across the music spectrum is so complex, dynamic and diverse.

8.4. What factors are most likely to be associated in manifesting creativity?

Learning, motivation, practice, aptitude and interest are factors commonly linked with creativity in the literature. These are also associated with comments above concerning domain knowledge. It is theorised that motivation may be a product of aptitude, or practice in the domain (Collins & Amabile 1999). Familiarity with the cognitive space of the domain was a persistent theme through the literature, though it appeared in different guises, for example from the scholarly

language of Boden (Boden 2004) to the more practical advice of Zappa (Zappa 1997). A similar notion emerged in industry conversations, where music was equated with language. Thus action within the domain depends upon understanding the musical language of the particular style in which the practitioner works, (Conversation 3, p. 275), (Conversation 5, p. 287), a view evident in the Molino model.

Specifications in the sampled competency items appeared to associate creativity with experimenting, practising different approaches in music activities and gaining familiarity with a wide range of music. Knowledge and technical skills were also embraced in the competency items sampled, encompassing familiarity with not only the cognitive space, but also the expressive, or emotional, and physical, or embodied skills necessary for a successful music practitioner. Many of these factors were captured in the sampled Units of Competency.

8.5. To what extent is creativity a gift, a behaviour, a competence, or a skill?

That creativity "is a result of deliberate practise in a domain and, particularly, in doing creative work in a domain" (Sternberg & O'Hara 1999b), is a view supported by Boden (Boden 2004), (Boden 2009), Csikszentmihalyi (Csikszentmihalyi 1996), and proponents of mastery, such as Ericsson (Ericsson 1996), (Ericsson, Prietula & Cokely 2007) and Nickerson (Nickerson 1999). These accounts cast creativity as a behaviour and a skill, corresponding with the Mozart literature (Einstein 1971), and teleological accounts of creativity (Briskman 2009), (Gaut 2009), (Jarvie 2009) and (Simonton 2004).

In industry conversations also, practice emerged as an important creative factor. There practice was proposed not so much in the traditional sense of repetitious practice, but rather in the sense of "just doing it". Nevertheless, Deliège and Richelle's caution, that the tacit elements may be absent from the first person accounts of musicians, might be relevant here (Deliège & Richelle 2006). Practice, in the context of playing in bands and doing gigs, was considered more effective for musicians in the popular commercial scene than solitary practice to gain technical skills (Conversation 6, p. 298).

Creativity specifications in the sampled Units of Competency explicated creativity as a behaviour and a skill. Practice in the domain is also specified, though not consistently, across the competency items examined.

8.6. To what extent can creativity be learned?

While the concept of learning is fraught, in a way no less than creativity, this is the first of two critical questions for the case study. The processes of learning and creativity are explicitly and extensively linked in the data sources, as indeed they are in practice. The “why” and "what" of learning to work creatively is abundantly elaborated in Boden's creativity explication, of understanding the cognitive space (Boden 2009), and Zappa's similar precept, of understanding the rules (Zappa 1997).

Advice on the “how” is less abundant. Nevertheless, examples drawing on descriptions, for example in the Mozart literature (Einstein 1971), and from accounts of musicians (Tchaikovsky 1997), (Conversation 3, p. 275), (Conversation 5, p. 287), (Conversation 6, p. 298), disclose many ways in which creativity is learned. A renowned Music Manager who claimed to be both unmusical and untrained in music, raised a dissenting voice, proclaiming creativity to be an innate ability (Conversation 4, p. 280).

For the purpose of this study, learning is understood in the sense of skill development. That is not to suggest, though, that this represents the sum of learning. Nonetheless, as delineated through the thesis, creativity is taken to be a skill. This conception of learning and creativity is evident in the case study sample of Units of Competency where it was apparent not only in items for tuition, but also across the Units of Competency referring to other sites of creativity. The competency items explicitly embrace specialised cognitive, as well as practical and emotional, dimensions of creativity in specifying creative skills, knowledge and behaviours.

As noted in Chapter Three, the study and work of musicians necessarily involves “mind, hand and heart,” generally at a highly integrated level. These aspects are evidently accommodated in the competency items. The role of learning and integration of the brain hemispheres required for musical activity were denoted in Chapter Five. There, commenting on the function of the corpus callosum, the part of the brain that connects the two hemispheres, Sacks was cited for his comment on the neuroscientific finding that the corpus callosum in musicians is significantly larger than in the general population. He calls attention to musings over how much this anatomical difference is “a reflection of innate predisposition and how much an effect of early musical training” (Sacks 2007, p. 94). Thus, developments in neuroscience have transcended the nature-nurture debate, and invigorated knowledge of learning and creativity, allowing for the perception of creativity as a skill.

Though the specialised area of pedagogy is beyond the scope of this study the significance of teacher expertise was raised by industry informants (Conversation 1, p. 261), (Conversation 2, p. 271), (Conversation 3, p. 275), (Conversation 5, p. 287), (Conversation 6, p. 298). Training Packages are not intended to replace teacher expertise, or to advise on teaching methods. Rather they are skill statements that teachers use to plan courses relevant to the achievement of qualifications being sought, or to plan assessments.

This study may stimulate discrete discussion on teacher expertise and the conscious development of creative skills in music learning and assessment in any sector. Competency items for tuition may have relevance for that discussion, though they are intended for studio teachers only. Clearly, for novice musicians, enculturation into a specific music style is likely to be most effectively achieved with an appropriate teacher, or at least a mentor, as a guide into the specific musical culture in which expertise is being sought. Such knowledge may only be obliquely inferred from the Training Package, as specific genres and styles are not designated in the competency items.

Evidently, learning is a necessary, if not sufficient, condition for creative action. Examination of the selected sample of competency items uncovered ample evidence of creativity being specified for learning and assessment. That further potential exists in the CBT system for more overtly specifying creativity for the purpose of planning and implementing effective learning for, and assessment of, creativity was also noted as a result of the case study analysis.

8.7. Can we know when creativity has been learned?

This is the second of the two critical questions for the case study. It goes to the issue of assessment of creativity, an area in which the literature presented something of a lacunae. Sternberg and O'Hara found consensus on the issue to be elusive (Sternberg & O'Hara 1999b). Similarly, consensus was lacking among industry practitioners. Still more, a generally unenthusiastic attitude towards considering the idea of assessing creativity was evident. One informant considered assessment to be inimical to creativity (Conversation 5, p. 287). A less equivocal, though no more helpful, view saw the diversity and unpredictability of creativity as rendering assessment "a minefield" (Conversation 6, p. 298). No informant expressed a view that it might be possible, necessary, or even useful, to assess creativity.

This gap in the literature, and the generally negative response on the question of assessing creativity, indicated disengagement with, if not resistance to, the notion. Unsurprisingly therefore, little appetite was evident for envisioning how creativity might be assessed. The need

for more research to focus on assessing creativity is apparent, because, as informants indicated, creativity is a critical dimension of skill in the work of those aspiring to be music practitioners.

Industry conversations did not draw out ideas on any specific methods that might be employed in identifying, or specifying, creativity. Due to the closed disposition in that particular area of discussion, it is not at all clear what kinds of assessment methods might be used in the learning environment. Even VET practitioners who participated in the conversations took an ambivalent stance on the notion of assessing of creativity. To that extent it seems that creativity, though specified in the sampled Units of Competence, is not perceived as an assessable dimension of skill. How, or whether, creativity is assessed in the more academic and less centralised areas of music education can only be conjectured, though the matter would be worth investigation.

The need to overcome the apparent lack of perception of any purpose for assessing creativity, and the evident fear of assessing creativity, is of particular concern. Accepting creativity as a skill means that music practitioners, even at the most basic level, can demonstrate creativity or not, and this research suggests that it is possible to discern the difference. Just because creativity may not readily lend itself to traditional assessment techniques does not mean that no attempt should be made to assess creativity. Certainly it is unlikely that the assessment of creativity will find perfect accommodation with any method of assessment. However, that is no argument for abandoning all hope of including the assessment of creativity in the evident range of skills required of a musician. Nor is it any reason to denounce categorically any or all proposed methods. The task needs to begin and it is certain that it will remain a work in progress.

In the previous chapter, analysis of the *Music Industry Training Package 01* uncovered many innovative examples of methods for assessing creativity. Some conclusions about the assessment of creativity can be drawn from that evaluation. Different creativity sites were chosen to test how creativity was accounted for in those sites. Creativity was specified, though not consistently, across the functional areas of composition, performance, tuition, extemporisation and artistic development. As identified in the study of Units of Competency, though the specifications could be more systematic, it was nevertheless clear that the explication of creativity through the kinds of specifications found in the competency items could greatly assist in the task of assessing creativity. It is demonstrated also that those specifications of creativity would assist in the development of learning programs that could give more overt emphasis to the development of creative skills. At least some evidence for this existed in each of the sampled Units of Competency. In the absence of other systematic methods of assessing

creativity those Units of Competency provide, at the very least, a model to begin to explicate creativity as a basis for learning and assessment.

Essentially, assessment of creativity differs according to the locus of creativity being assessed. The need for different specifications to accord with the different sites of creativity was evident in the study of the sampled Units of Competency. The most important evidence required was specified as "critical evidence". Methods of assessment provided advice for the different sites of creative skills, and a variety of assessment methods and instruments was specified for each Unit of Competency studied. Composition for example has a retrievable trace, either recorded or in written text, that can be assessed. Performance may need to be assessed in real time, but may also be assessed from a recorded performance, and so too improvisation. Supporting evidence suggestions included process diaries, work portfolios, scenario discussions and so on, forming a suite of assessment tools. The specification of creative skills to be demonstrated was also apparent, especially in those sections where creativity was explicitly mentioned.

Nevertheless, the role of the assessor is critical, since, though much advice is provided, the competency items do not specify musical styles and cultures for which candidates may seek assessment. Consequently, the assessor must have the cultural and musical knowledge relevant to any specific type, or genre, of music being assessed. The assessor must, as it were, be in command of both the cognitive and cultural space. Thus, the expertise of the assessor must include the capacity to understand the style or styles of music being assessed; expectations of the likely audience for the style of music being presented to ensure that the music is appropriate for the audience, and; the proportion of creative risk appropriate to such audiences, to determine that the level and type of creativity expressed is transmissible to that audience. For example, the most creative of rap performances would hardly succeed with a traditional country music audience. Similarly a country music piece may not succeed with a heavy metal, or a dance music audience. A pop song may be admired by some audiences and despised by others. These issues are not within the provision of Training Packages. Rather, they depend upon the cultural and interpretive expertise of the tutor and assessor.

The assessor must also be able to make clear to the candidate what she or he is being assessed for (Hickey In press), (Conversation 1, p. 261), what tasks or specific demonstration of skills are required and what other evidence of skill is required. In assessing creativity the literature and practitioners concurred on the need to ensure that the candidate is made to feel safe enough in the assessment environment so as not to block creative expression.

Though a matter for comment rather than discussion here, in considering the expertise of the assessor, there must be a level of experience, knowledge and understanding well above the level of the candidate being assessed. Following earlier comment on how candidates for assessment should be briefed, the assessor should also be clear with the student that creativity is being assessed in a particular task, what the special requirements are for the student and what the specific assessment techniques are to be employed by the assessor.

An important consideration in the assessment of creativity is that performance criteria cannot be prescriptive. Assessment of creativity requires analysis of the poietic process, the trace and the esthesic process of audience interpretation. This requires the assessor to have expert knowledge of both the domain and the prospective audience, so as to judge whether the creative risks taken are appropriate and proportionate. Essentially, for candidates being assessed, a practical demonstration of understanding of these principles would be required for a successful assessment outcome to be achieved. These considerations must then be balanced with originality of the performance, or piece, that is, the creative element.

Units of Competency are assessment tools. Creativity is palpably evident in the selected units, if somewhat inconsistent. Potential for the sampled CBT items to be more specific concerning creativity for particular areas of musical practice is apparent. Still, the Units of Competency analysed in the case study sample are evidently well suited to specify creativity with an appropriate level of nuance for the purpose of assessing the full gamut of various musical tasks.

8.8. Conclusion

Confronting the challenge of disparate and conflicting accounts of creativity in this research, a single, coherent set of creativity questions was applied to diverse sources of information. Through application of the creativity questions, information was distilled from a series of inquiries for correspondence with the case study.

Enquiries into the social and economic genesis of CBT, in Chapter Two, and into music education across the wider education spectrum, in Chapter Three, situated the case study in its industrial and educational settings. Enquiries into creativity, in Chapter Five, and into creativity specifically in the popular commercial music industry, in Chapter Six, directly informed analysis of the case study, in Chapter Seven. The case study, CBT for the music industry, was represented by a purposive sample of CBT items to test the primary research question; can creativity be accommodated in the competency paradigm?

Correlation of data from the information sources, with the sample competency items, elicited a positive response to that question. The study showed that creativity was specified, to varying degrees, in all of the case study items analysed. Additionally, analysis indicated significant potential for creativity to be more systematically embedded into Units of Competency, to better accommodate creativity for music learning and assessment. The notion of CBT being atomistic has credence only if Units of Competency are considered separately. However, evaluation of the eight sampled Units of Competency found these items to have the potential for flexible packaging to suit diverse and innovative course development or assessment needs, or integrated learning and assessment. Such packaging possibilities offer more flexibility than syllabus based curricula to accommodate not only different musical tasks, but also different musical styles.

Though the focus of this study has been the extent to which creativity can be accommodated in CBT, the place of professional teachers and assessors holds critical significance for the appraisal of CBT, as it would for the appraisal of any learning and/or assessment methodology. From the perspective of these professionals the top down promulgation of CBT, and paucity of professional development opportunities for its implementation, made resistance inevitable. As elaborated in Chapter Two, controversy over CBT caused the system to become demonised, undermining the possibility of serious, or objective appraisal of CBT.

Concomitantly, the academic tradition of excellence in the schools and HE sectors naturally opposed the practical culture of VET. Thus any educational and/or training method to emerge in VET, even had it been generally understood in the academic sectors, would have been considered unsuited in those sectors. Consequently, CBT attracted little interest from music programs in HE, though it did gain some acceptance in the school sector, as elaborated in Chapters Two and Three. Ultimately however, resistance meant that scholarly, or even objective, attention to CBT as a possibly legitimate instrument of music education was limited. That CBT could be a useful, even emergent, model for music education, as indicated by this creativity study, seemed beyond the pale of serious consideration.

This case study has found that creativity in music is accommodated in the competency paradigm. More explicit consideration of creativity in future revisions of the Units of Competency is suggested. The model seems well suited for consideration in other sectors of music education, and potentially well beyond the domain of music.

Appendix A: Glossary

ACE	Adult Community Education
ACOTAFE	Australian Committee on Technical and Further Education
ACTU	Australian Council of Trade Unions
AEC	Australian Education Council
AI	Artificial Intelligence
AIM	Australian Institute of Music (a private RTO)
AMEB	Australian Music Examinations Board
AMWU	Amalgamated Metal Workers' Union
ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
AQFAB	Australian Qualifications Framework Advisory Board
AQTF	Australian Quality Training Framework
ASF	Australian Standards Framework
ATAR	Australian Tertiary Admission Rank
CBT	Competency Based Training
COAG	Council of Australian Governments
CSB	Competency Standards Body
DEST	Department of Education, Science and Training
EMI	or "Emmy"; Experiments in Musical Intelligence
Emmy	or "EMI"; Experiments in Musical Intelligence
ESFC	Employment and Skills Formation Council
fMRI	functional Magnetic Resonance Imaging
GOFAI	Good Old Fashioned Artificial Intelligence
HE	Higher Education
HSC	Higher School Certificate (NSW)
IBSA	Innovation & Business Skills Australia
ILO	International Labour Organisation
IQ	Intelligence Quotient
ISC	Industry Skills Councils
ITAB	Industry Training Advisory Body
MCEETYA	Ministerial Council for Education Employment, Training and Youth Affairs
MCTEE	Ministerial Council for Tertiary Education and Employment
NCVER	National Centre for Vocational Education Research
MCVTE	Ministerial Council for Vocational and Technical Education
MI	Multiple Intelligences (Gardner 1983)
MINCO	Ministerial Council
MOVEET	Ministers of Vocational Education, Employment and Training
NBEET	National Board of Employment, Education and Training
NFROT	National Framework for the Recognition of Training
NOOSR	National Office of Overseas Skills Recognition
NQC	National Quality Council
NSSC	National Skills Standards Council
NSWBOS	NSW Board of Studies
NTB	National Training Board
NTFC	National Training Framework Committee
NTF	National Training Framework
OECD	Organisation for Economic Co-operation and Development
OPEC	Oil Producing and Export Countries
PDP	Parallel Distributed Processing; the type of information processing that is used by the brain and artificial neural network computers
RCC	Recognition of Current Competence
RPL	Recognition of Prior Learning
RTO	Registered Training Organisation

QERC	Quality of Education Review Committee
SCC	Standards and Curriculum Council
TAFE	Technical And Further Education
TAFEC	Technical and Further Education Commission
TCL	Trinity College London
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VEETAC	Vocational Education, Employment and Training Advisory Committee
VEETAB	Vocational Education, Employment and Training Accreditation Board
VET	Vocational Education & Training
Vitus dormitiva	A type of tautology in which an item is being explained in terms of the item itself, only put in different (usually more abstract) words

Appendix B: Industry conversations

R = Researcher

I = Informant

Conversation 1: Music Teacher in TAFE

The informant was provided with a written text of the questions prior to interview as well as copies of eight Units of Competency with relevance to creativity from the Music Industry Training Package 01.

R. Thank you for agreeing to this interview and going through this list of questions. The main question I have for my research is to what extent does the competency paradigm allow for teaching, learning and assessment for creativity in music? For my research these questions concern people studying for, or working in the commercial music industry.

R. Q 1. What is creativity in music? What do you describe as creativity in music and what is its importance?

I. Well firstly I think it's a most unfair question. It's like asking who is God and what is his manifestation. It's just too big and too broad except to give the most general answers, when you kind of get up to that layer and therefore its likely to elicit more kind of personal – so you're not going to get the answers that are going to be the most useful – except for the most personal ones and so then it just comes down to who you happen to be interviewing.

Commenting on your research question, my view with regard to assisting training and assessment is that there are two parts to this. Firstly you have an excellent teacher and then, that is if you have an excellent teacher, then, any imposition will just be an imposition – so it will be of no assistance whatsoever, it's just going to be an annoyance.

If there's a whole range of teachers – some good some bad – then it may be of some assistance. Or it may be counter productive. It might assist poor teachers look as if they're better teachers. If there are poor teachers it may make them look better than they really are. They may maintain their poor teaching practice, but be able to latch on to some structure which makes them look better – rather than making them develop themselves and develop that kind of structure.

And it also leaves out the purpose of training and assessment, or the purpose, perhaps, of the standards, which might be something quite distinct from just ordinary training and assessment so that there may be some kind of baseline across the country which is maybe not something different but at least something quite distinct from individual training and individual assessment. So I think there's all those other bits in there that have different values. So we can't answer the question from just one point of view we need to approach it from a number of points of view.

On the whole we tend to put training and assessment in the same sentence all the time but when you're doing it they're very different operations and they're very different interactions with the person. For example training might well be a nurturing role whereas assessment might be a calibration role and I think that it's most unfair just to whack them in the same sentence all the time and think that they just go hand in hand. That's my first scared reaction to a sentence like that. It presumes a lot of things that I don't presume, as it were, that I'm scared of, or scared of putting together and then just lumping together from then on.

So creativity in music and its importance? In a sense I think that it's a bit of an unanswerable question but I do have a personal answer and it is as general as the question is. And that is I do think that creativity in music is ones personal input into the music. So if I'm not putting my personal input in then I'm not adding anything creative to the music. I might be a conduit to someone else's creativity, but it still might be a creative process but it might be somebody else's, I don't know.

The importance of creativity in music, well its importance is just a cultural one and that is that our tradition is one where individual input is valued, so, insofar as that's important then creativity is important.

R. Thanks for your response despite the difficulty presented by the generality of the first question – finding it hard to define creativity.

R. Q2. How would you define the outcomes and conditions for developing creativity in music?

I. That is a difficult question I think. I wish I could remember who said this wonderful quote – once you begin to define something you begin to lie about it. So I've got a bit of a problem with that because I know that if I'm going to define something I'm going to be – chopping off the edges and smoothing it off – so I'm going to begin to lie about it. It might be a good thing to have facility to do something with the product – its no longer going to be the truth. So that's one problem. Perhaps I'd be able to define the conditions or at least describe some of them for developing creativity in music.

Trying to define the outcomes for developing creativity in music, actually I don't understand that grammar. What's the definition of outcomes for developing creativity in music?

R. How do you say what are the outcomes you want in creativity?

I. Can I write something down that will define a creative outcome – is that what you mean?

R. Yes. This is coming from what may be seen as a criticism of the standards in that they are said to be actually only outcome statements.

I. Rather than process statements. Yes – meant to be outcomes rather than process statements – but sometimes they cheat and try to look an outcome but really they're trying to say a process, i.e., you'll undertake x, y and z. And this is a problem with language. You can cheat and say something different or really opposite to what the grammar implies.

For me defining conditions for developing creativity, at the risk of being simplistic, there have to be conditions to allow personal input into the music and that's not to say that's the only condition for learning music but that has to be in there amongst it – that possibility. I'm not even saying that there should be personal input at different levels of learning music – that's a separate question – the different levels – and who knows where they should be for creativity and how much of it. If I'm developing creativity though it would have to be there.

The most obvious example of not doing that is in the old days when there was a rap over the knuckles. We're not allowing personal input there – whereas we want to encourage it.

To write an outcome for that is not hard. But if we want to assess that personal input that is something else. Writing it to make sense might be a problem. Writing it to be assessable might be a problem. Measuring the quality and quantity of personal input might be a problem. Actually writing it to a grammatical formulation is no problem at all.

R. Q3. You've already hinted at this – but; are there creative and non-creative aspects to being a musician? And if there are, should they be treated differently, or the same, in training and assessing (my apologies) students aspiring to a career in the music industry?

I. Well because I think of training and assessing being so different and of course I think that there are things that are creative in music and things that aren't. There'll be times in music when you do not, absolutely do not, put your own individual input into the music – when you might be supporting somebody else's input into the music. So I think its most important to acknowledge that there'll be times when we're standing in line and saluting and there'll be times when we're using our own initiative. And I think that's not unusual. I think that that will be part of training in just about anything I can think of; that there will be both sorts of things.

It's pretty easy to measure standing in line and saluting because there's not personal input – there's a standard. But it is hard to use the same sort of analogy to quantify initiative. It depends what the conditions are and what pressures you're under. And it depends what's deemed to be appropriate after the event. So it's a sort of retrospective thing – that's not apparent before the conditions manifest themselves. So to even think about assessing music – weighing up these things they almost have a different time to be

done. Where initiative's involved you almost have to wait to weigh it up, like a past event, whereas things without initiative, because they're not new, they can be weighed up immediately.

R. Is there a sort of developmental process where these things perhaps, one has more emphasis than the other? Maybe in the early part of training, does the technical have a greater emphasis and as development proceeds initiative takes on more emphasis?

I. This is a personal view – but I don't think so. I think that they're quite distinct really and that they can be developed alongside each other. The thing that I like to think could be possible is that we let the student know absolutely when they're doing one or the other, and make a very clear distinction between them so that it doesn't get confused. There are a lot of problems when the two do get confused because there are times when you do have to stand in line and others when you need to break out. And to know the difference I think is a huge part of education. Not only for music; but for anything. I mean there are times when you've got to be disciplined and times when you have to use some kind of discipline with imagination to do something personal. And I think that lots of times people don't know the difference. And I think it's really easy to communicate with people who know the difference, to negotiate and organise.

R. Would it be possible to give an example of that?

I. I could specify certain technical work such as scales and arpeggios and I can specify the speed or the range of a particular instrument or the fingering. Or I could specify the articulations to develop these things. And they can be measured pretty well quantitatively. Whereas if I specify some conditions for within which a student should write a piece of music then obviously that's qualitative.

R. Q4 How is creativity important in composing, performing, musical direction or studio production? I invite you to elaborate on any one or all. You can just pick one if you prefer. Could you describe the role of creativity in any of those activities?

I. Well we know that creativity's important in any of those activities because it's a cultural value and it's a very high value to the extent that we know we will value it above technical facility for example. So it's obviously of central importance. For me personally I don't think of it as important to music necessarily. It's just as a cultural value imposed on me. I can imagine music where personal input isn't required at all, but it's not the sort of music we're talking about. So to me it's not integral to music. But that's important from my point of view because it's a separation I suppose. They don't have to go together necessarily. However they do in this context and people value personal input.

Looking at composing, its almost hard to imagine composing without personal input though it might be done, particularly if you're pitching a song to a particular performer and you write a song that that particular performer will take up because it just suits them, or because it's like the other songs they perform or something. But there's still some personal input presumably – but you'd be almost trying to keep it to a minimum, because you're really writing it to a market.

R. Does that mean complying with a formula and does that affect creativity?

I. It's probably not as simple as a formula – but formulaic, or at least, following a model. Because you can use a formula and still be quite creative – yes – but more a model. You might be varying the model slightly but still within parameters that are fixed elsewhere and not your own personal taste. I could write music not my own personal taste but following a model, for example; and possibly that's general so there's quite a lot where personal input is minimised. But maybe that's not such a good example because you need to write something that's going to attract attention, most of the time anyway.

Improvisation I think is similar to composing. There are programs on computer that are quite good – sort of using samples from various things – but they don't have personal qualities really. Though it is hard to imagine improvising without personal input.

Performing? I think it's possible to perform without personal input. Or at least minimising personal input – playing as part of a section. You might be aspiring to play as close as possible to the leader or to a real or imagined standard and it's valuable in the sense that it's section work. But most of the time it's performing the cultural values for originality.

Musical direction I guess too and studio production. All these things are typically creative. Studio production is I guess limited by the equipment. And we all know producers who are very creative in their use of the equipment and there's the others who are not creative but they are exact and they do a very good job as producers but they're not adding too much creativity to the work. Perhaps they're acceding to the creativity of the performers or composers. I don't think I'm getting much out of this except to say that, or its obvious to me at least, that originality, or, creativity is central to all of these. I'm almost trying to think where that would not be the case. Because its so central and of great importance within our cultural value system. And yet there are technical skills that are convergent rather than divergent as well.

R. Perhaps it's not productive to ask the question what is the distinction between technical and creative skills but rather to consider what is the relationship between the two?

I. Yes but personally I tend not to put the two together so much. I tend to think of the technical skills as the tools to allow me to have a personal input in a certain medium. So I think that for many of us they're quite different. I'm reminded of students at the post-graduate music school of Santa Cecilia in Rome. In Italy they've got this strict regime (at undergraduate level) where they compose to practical models – classical models and then when they get to this post graduate school where they're allowed to be free and do original work – and because they've got no practice in being original, but have all of these technical skills, they find it very hard to write original work. It has been a problem, and many foreign students who go there love it if they've had a background in doing creative work because they can just carry on. So I do think if the creative side is not developed at the same time then we're unpractised in using our personal input – or, using those tools for our personal input. So you need to develop them at the same time so you don't just do the ground work and say OK now you've got the (technical) package and you can go off and do your own work and be creative.

So I think that though they need to be developed at the same time that does not mean that I think that they are inextricably linked in other ways.

R. So what I want to know is how do people develop creativity. How do people get creative skills, or how are they helped to get creative skills?

I. (Finding this question hard it was suggested that perhaps they were genetic?) Yes there's no doubt that some people have them more than others, different degrees of creativity. And personality has something to do with it. Some people have no difficulty expressing their personalities and others are more reserved. And similarly some people are more outgoing in their creative expression and creative endeavours and some aren't.

R. Artistic extroverts?

I. Yes – or something similar, so it wouldn't surprise me if there was a lot of nature in there. And in those terms too of a lot of people might develop the creative side of their natures too when other things don't work. For example, if I'm not able to play the piano with the technique that's going to replicate the model, and I want to play the piano, then I'm going to have to work out some other way to do it – which is my own personal input – and I think that a lot of creativity is the result of not being able to do something else. Sounds a bit negative.

R. Solving a problem?

I. Solving a problem in a different way. I can't play the piano the way I'm taught so therefore I'll just have to work it out. And our cultural values are that this is applauded. This is a kind of initiative. Using a different tool for getting there or something like that. It can be very exciting – we find it very exciting – alternatives. So for me creativity is divergent. Adhering to a technical standard is convergent. And I think that a lot of people don't have the skill, aptitude, concentration, talent or whatever to be totally convergent and therefore they use other skills to solve the problem, as it were.

R. Q5 What were the best features of your education for developing creativity?

I. There are a lot of assumptions in that question. Assuming I am creative. Assuming there were such features in my education. Now if its true in my case my training that was given to me, as distinct from my own education, was not very technical. It was pretty open ended. My piano teacher was gentle and didn't

shout at me when I didn't get to the standard required. My tertiary training at the conservatorium was in the seventies and was pretty open ended.

They were all hippies I think and they just believed in letting you do what you wanted to do. One of my lecturers had studied at York (University) with Wilfred Mellors, who said let them just hang around composing whatever they want for three years and we'll give them a doctorate. So it was that kind of value system there, whereas I would have enjoyed a bit more technical training. So I'm not sure that it's the best feature. I guess it was in the sense we were unfettered. In my mind, though, there wasn't a good balance between the convergent and the divergent activities and they weren't distinguished. It was just a bit loose I think. But having said that I had a great time, enjoyed it very much and the technical things that I wanted to learn I taught myself. For example I was exempted from all harmony training on the basis of my entrance exam, which I thought at the time was outrageous. I think that the requirements were not that high. I had to learn to write a fugue from a book, for example, because it wasn't taught there. Perhaps what I learnt depended on motivation.

In our own system here as you can see we've got a free (studio) environment – but then we've got a room in the middle (with glass) – so it's quite consciously controlled in our system. So perhaps I have responded to the best aspects of my training that allows the space for you to develop what you have.

R. Q6 How have you developed your or your students' creative skills and what strategies have you used with yourself or your students to develop?

I. Yes I do use strategies and quite conscious strategies. On the first part of the question I don't really consider myself to be a very creative person. But all my training presumes creativity. It was forced upon us in the sense that there must be this vast empty space and you've somehow got to fill it up with something or other if you want to keep going. I personally would have appreciated a more technical education rather than the one I had, at the time at least. Now it was so long ago I can't really remember much so I suppose it doesn't really matter any more. I didn't go into music as a creative person. I did composition because I couldn't play the piano. So I would've developed my creative skills under sufferance because that was the regime. Subsequently I appreciate it of course. But that wasn't my aim to be a creative person like a composer. I was more interested in musicology and analysis, but they didn't really have that at the conservatorium. And I didn't want to go to the conservatorium because I couldn't write essays.

But having been trained in creativity I do appreciate it and I can recognise it now and maybe its because I'm not naturally creative and I know when I am and when I'm not. I can turn it on now and I can turn it off, so it's not something which I can't help being – which I suppose is something that creative musicians can't help because that's what they are.

As far as our students are concerned I don't expect them to be innately creative like any artist and I remember I had the most wonderful economics teacher at school. Most of us did economics because it was nothing else we could do in that line and I think he recognised that so he had no expectations of us in economics at all. He taught us in a thorough way that had no expectations and I so appreciated that because I was not interested in economics. Despite it we all did very well. So I superimpose that value when I look at the students. I don't expect them to be interested in this or that or the other combination. It'll all be different for all of them. It was expected that I would be creative when I was a student at the con. I don't expect them to be creative.

I can make conditions – I can superimpose conditions that will encourage divergent responses within a certain field of control lets say. So if I'm thinking that creativity is characterised by divergence if I make that divergence too broad they will be lost because they're not necessarily creative. They may have little bits of it – but if I just say there do what you like I'm just presuming so much. But to let them play in the field and make the boundaries, then that is a whole lot easier for them and by that I mean, perhaps, if I want them to write a song. I might also say we'll write a song, but the song will be humorous and the song will reflect something of the world that we're living in at the moment. The song will make reference or derive from known models of song writing or something like this.

So in other words I'm specifying some things that to me are like boundaries, rather than sticking a post in the ground and saying "well how close can you hit this?" Which to me is a version of how straight can you stand in line? That's at least my imaginary model of it.

R. So not defining the product before you start, but defining the boundaries.

I. Yes. So that's a strategy – it's to define the boundaries. My strategy for skills development is to stick a post in the ground and see how close you can get to it.

R. Q7. What aspects of your training in musical creativity would you like to have been improved?

I. I would have enjoyed it to have been a bit more articulated.
R. Q8. What advice would you give to educators about training and assessing for students aspiring to a career in the music industry?

Importance of specifying outcomes in the different areas of music activities to help students know what they need to know to get where they want to get?

I. If I was teaching teachers I could do no more than teach them what I've already said to you. It's the approach that I have found really effective so if someone could give me another approach I'd be following that. I'd think long and hard about how I'm teaching and what presumptions I'm making when I'm teaching. Basically this is what I've come up with so in the absence of something else I'd give them that advice to know what they're teaching and when they're teaching it and know when they're doing this and that and let the students know when they're doing this and when they're doing that. So that they're more self aware.

Now that's about teaching now you've got advice to give to educators about teaching and that's all I can do. But educators assessing, and I'm thinking about assessors assessing but you can have educators assessing as well. You teach the course and you assess the course. I have grave problems with this because as you already know I see differences between things and I keep them apart. Which is defining them. Which is lying about them because they do go together but it's just that I can't manage them when they're all mixed up together. As I said I like to know when I'm doing this and when I'm doing that.

R. Some people say that that's the problem with the standards though. They separate things too much. They pull things apart?

I. Yes but maybe they just don't pull them apart in the right kind of way! You know there's more than one way to pull things apart. You have to use it or interact with it, otherwise its just bouncing around out there.

I've got a great problem with assessing. No problem with teaching but a great problem with assessing. I think of the outcomes that are in the music Training Package as basically assessment tools. I can look at those assessment tools and work out how to teach towards them. No problem because I'm a trained, or, experienced teacher so I can look at that and say I know how to get there. That's not a problem. I would have a problem making a quantifiable calibration of achievement, in other words an assessment. I do have a problem with that, because if your going to quantify something it has to have quantity and if you're in my institution we've got a hundred such quantities – like one to a hundred or something and if I'm going to put quantities against something in another form I have to know the difference say between four and five, or eight and nine, or 50% and 80%.

R. Rather than competent or not competent?

I. Yes but I have less problem with competent or not competent. Even then I have a problem. But if these industry standards I can imagine what would be more or less acceptable at a certain standard in say, yes this will be, no that won't be. And then it's just my personal experience. But I can be reasonably confidant that I'll be reasonably close. But that's still pretty vague and its dependent on my experience and my reflection and my imagination of the industry or bits of the industry – we talk about the industry – but mixed up bits of the industry. So as far as assessing is concerned I could be reasonably sure of assessing competent or not competent but I'm blowed if I can give marks out of a hundred – which is what I do every day. I can't pretend though I have worked out some sort of rationale – but I'm lying.

R. That leads me to think and you were just saying. I'm thinking of this as a vocational institution of learning and students presumably come here because they want to have a career in sectors of the music industry

I. Well that's presuming a bit too much. We have students who want to come here – well yes and no. Some might "want to come here" as the path of least resistance so the word want has many grades of meaning – "a career" – again a career has many grades of meaning, in "the music industry" – all those grades of music industry. We've got three at least variable values in that one statement and by the time you add up all of the three variables its really quite wide. And you say the music industry and I refuse to say music industry but music industries because they're not convergent and there's not one industry, it's a splatter. That neat statement doesn't describe what there is but just a dot – of the splatter.

R. I'm just wondering, as we've been speaking around the subject of music education, if music training, within the vocational perspective, means that it's constrained. It doesn't appear to be any more or less" vocational" than it is in the tertiary sector. Or what is your view of what you are charged to facilitate in students?

I. What I'm charged to facilitate in students and what I do are two different things. We just used the words education and training and the words mean something a little different to me. Education means something more open ended whereas training is more convergent. Training for me I think of as heading for a certain outcome, but something that is well defined. I can train someone to do a particular task. You can say I can train someone to be creative and I would say – oh – that might be a bit of a trick of language you know. We can put those words together, but that's not what I mean by training anyway. I can educate people to be more creative. Very generally I think of education as having qualities that are transportable, but training less so. They might be transportable but that's just luck. It's really looking at a point and working towards a point.

Now that brings up the Training Package and it's not an education package. And of course it's neither training or a package. It's called a Training Package but it's neither of them. It's a list of outcomes from the music industry as far as people have been able to write them down, under the time constraints and personal constraints etc. Now in my view of things I could only write a Training Package for something that could be trained for. I could list the outcomes of something that could be well defined. Now of course if something's shifting all the time it can't be well defined – unless you take a picture, or calibration of it and say well we're going to fix it here and were going to define it there it's a snapshot – a calibration and we're going to work towards that. Now to me there are things where you can do that. I reckon you can train for the symphony orchestra. I reckon you can do that; pretty well defined – standard repertoire etc. There are things that aren't defined too, you know – new music and all that. I'm not saying everything's defined – but pretty broadly well defined. I'm not saying the whole thing's definable – but there's a central body that can be defined. I think there are various styles of jazz that could be defined. There could be some sorts of contemporary music that could be defined but it changes so quickly (short shelf life) that you'd better be quick writing the Training Package.

I think it's very dopey to write a Training Package for something that can't be defined. I think it's dopey to say look there's an industry – we can write a Training Package for that industry like we did for the other industry – that's dopiness of the highest order. If it's not dopey then it's just policy that you use to flatten out everything.

R. So does the Training Package make a difference? Any kind of difference to what you do?

I. Well it's made it harder and I'm going to be very immodest and say I'm a good teacher, so the more that's shoved my way the worse it's going to be. More rubbish, junk, stuff (not staff) and more impediment. It's going to be an impedance. Someone might say but this makes it clearer – but for me its just another thing and it won't make me a better teacher. It makes my life harder because it's not linear, though there's linear aspects in there. My teaching has a linear, developmental structure.

So the Training Package as I understand it is not meant to be a linear document. It's a set of definitions. But when I do a course it's a linear developmental process. It means that I'll be holding some things back for use later on. It's harder to develop attitudes when you give people everything at once. It's harder to make sure that the things are there in the right order so that the next concept will be able to bed down on the last – all those traditional educational things.

This (the Training Package) is not supposed to be building blocks as I understand it. It's meant to be industry definitions. You might have squeezed some building blocks in there but even so it's less useful than a course. Now the regulations that are imposed on us are that the courses have to align to the

Training Package and that means align lock step. So we are lock step in there and our modules have to align lock step. So if the module's not in there, there's no module. Because our funding is locked into the Training Package and we aren't funded for modules that aren't mapped to the Training Package. This may not have been the intention but it is the outcome of the Training Package.

Now for example I could take that Training Package and write a course, to get to those outcomes, but it would look different to the course that we've got. One of the problems is that the Training Package is organised into qualifications and these are educational qualifications and it might have been argued that it wasn't going to be an educational qualification, but an industry recognition or something like that. We don't know anymore the difference between an industry qualification awarded by an educational institution and an educational qualification. So it's another example of two things that may have intended to be separate now being the same.

In education we give certificates and diplomas etc. But what happens if somebody comes along and says this is an industry qualification and it's called Diploma? How are we to know the difference? What happens is that that standard, probably intentionally, is our standard, but that's a trick. Probably the people who invented Training Packages are very clever because they just wiped out ours and put in that one.

I'd like the difference between the course and the Training Package clearly articulated. For example someone could say this is the course and that is the Training Package. But in my organization it blurred. So there's not much difference really.

So are the standards useful I would say that they could be useful. I would say that they could be useful. Defining something that's divergent does more harm than good because it's a lie. And I don't mind little lies but big lies like that can do more harm than good. I can tell little lies to simplify things in the classroom but I can fix them up later on. But if I put a big lie like that out into the world I can't fix it later. But that's just from my point of view.

If I'm thinking of it from the point of view of being able to peg some standards across the country so that people can move from one state to another or something I'd say that's such a phenomenal job it'd take decades to do. For example the difference between a symphony player and a grunge rock player and to lump them together is pretty far fetched.

(Conversation from recording omitted here. It was about standards based on a conception of performers and composers at different academic levels of achievement and indicators that are generally used to make judgements for tertiary level students based on ideas of peer review.)

I. Can we do that for all the myriad types of music represented in the music industries? Possibly but it would be such a monumental task it would take decades and be many Training Packages.

R. Q9. Would you look at any of the eight music standards provided and comment on the creativity items and their relevance for people developing creative skills to succeed in the music industry?

I. First problem is one of approaching it because I've got a problem with the language. We've got the Training Package which is a book; and we've got standards which aren't standardised against any base line. So none of the words make sense. So we've got a unit and its not one thing it's a group of things and we've got competency but it doesn't relate to competence against a base line either. So all of these words are used and we've got a vague idea of the meaning but to me they're not used correctly so I know what you mean by a competency standard, a unit, an element – but that's not how I use those words. So I've got a problem interacting with it because it's in a foreign language.

Given that, I can just jump in so if you've got an element that says develop own composition practice now that doesn't let you know how much of anything, what to do or how to do it. Then we look at the performance criteria and they just tell you how you'll know when you've done it and there's no more subsections to tell you how much of it or any more detail. What I mean is all of these things point us to things that are important, but it doesn't quantify anything. Since you say you have a standard and you have no quantification then my mind goes blank. It doesn't make sense.

I can look at this and talk to someone and use my experience to work it out, but it's not written down. The first one "Develop Own Composition Practice". Well I've developed my own composition practice but I've done it a lot more than somebody else or a lot less than somebody else so where are we?

"Plan Own Business" well yes if we're going to tutor composition we're going to have to plan our business etc tutor learners yes, creative development, craft etc; so I read it and I can get what it's all about, but that's not what it's saying. So I've got to use a lot of interpretation. Some things are good and some are gobbledygook. (Performance Criteria) "Encourage learners to explore ideas in a range of cultures, enhance ideas to inspire imagination". Now that's a good idea I could plan days of lessons around that but it's listed as a "performance criteria" so the most minimal interpretation could apply here; or that could be a large course in itself.

If we were to provide tuition for composition we would have to have all of these things under our belt, including "plan own business". But if I'm doing a course in providing a course on giving tuition then I might not include "plan your business". The course might take three years. And we would have different strands. Here you've got it all in one standard. So each of these things is either big enough for one course or just something to be slotted in somewhere and its all lumped in together. (This paragraph is abbreviated)

The creativity bits are in there but they don't make sense within the language.

Design new strategies to assist the learners to develop the habit of constant critical listening to their own work to critically assess their own output development. The writers have cheated to get stuff in there under "performance criteria". But it's not a "performance criteria". It's good to have it there but it's not really assessable. I can have an idea of when it's done – but that's just my idea. Here I'll say to the teachers this or that is or isn't acceptable and that's how it's done. But for some of the private colleges, who are guided more by economic constraints the standard can be interpreted minimally. So that can reduce the standard and length of courses. They can offer a qualification say in half the time that we do. And we will eventually fall in to step as well.

For it to work it would need to be regulated.

Interviewee talked more about the deficiencies of the package explaining how it will be instrumental in reducing standards due to, for example, lack of guidance on how long a course would need to be – opening up the way for RTOs taking short cuts based on financial considerations and TAFE following suit also for financial reasons. Thus educational integrity might be sacrificed to filling seats (interviewers interpretation)

I. It's greatest use is as industry statements so RTOs don't have to use resources to commission industry scoping studies and such to develop their courses. But instead it serves as a course because it dictates everything that must be included and also anything that's not in the package is excluded. The regulations are that your modules will map these units. So in that sense the package stands as a course.

R. Qualifications? Do they help to make the course? Is there too much flexibility.

I. Well when I instigate a course I have to find my way through all of the units to give it a linear developmental structure. That is not like running a series of workshops – though that might work really well for industry.

R. Well it was designed to allow for that – so people could learn on the job.

I. Yes but it's terrible for putting together a course and that's our business. And all the management stuff isn't thought through. Students arriving from school to do a couple of years of music aren't going to be managers – but it's in there.

Creativity is in there too – but not as standards. They're suggestions. A teacher would look at it and think some are good and some are silly and think of a few more. It's a personal thing.

Any of the industries that require a convergent result are much easier to deal with. Is the competency paradigm diametrically opposed to music? The idea is useful and the Training Package document lists criteria. But those criteria are not standards.

Creatively competent yes – but that's not to say that anyone else will like it (the work). It can be completely useful or not. Then we'll have to start talking about cultural paradigms and that would be a very long discussion.

Conversation 2: RTO Chief Executive Officer

The informant is Chief Executive Officer of a private Registered Training Organisation (RTO) specialising in digital media, sound and film production, music and entertainment.

The informant was provided with a written text of the proposed questions prior to interview as well as copies of eight Units of Competency with relevance to creativity from the Music Industry Training Package 01. However this informant was reluctant to discuss actual Units of Competency though the music courses delivered by the RTO were based on Music Industry Training Package 01. The conversation remained open and was occasionally interrupted because the interviewee was dealing with family responsibilities during the interview.

R. Q1. As an executive of a private Registered Training Organisation what is your view of the importance of creativity in performance, composition/song-writing etc.?

I. Logically creativity is fundamental to all of it because with out that none of that would exist.

One of the problems with Training Packages is that while they are trying to be as flexible as possible they do tend to stifle creativity and they stifle it because they give you a fixed target to go to and they call that a learning outcome. That target makes you move in one specific direction and that means that creativity is reduced to where that target happens to be standing

R. What do you see as creativity for your students doing their courses here?

I. Freedom to experiment and it has been that way throughout history, that's what creativity is – to try different things and present them to the public. It's usually about expressing their emotions or feelings on something, different subjects. That's what its about. That's what creativity is for.

R. How is creativity valued in a successful career as a musician? Are there any parameters on it, I mean what are the constraints on creativity in the industry when it's a commercial activity? What are the constraints on creativity, eg in marketing and what are the drivers of creativity?

I. That's the thing about creativity – you can't but a barrier on it because what it is that people will like today is not necessarily defined (it's always changing?). We do have pop culture. We do have music that's specifically designed to appeal to a particular market – to a specific age group and that can be used in advertising or it can be used in film scores.

You have two different forms of creativity. One is self expression and the other is stimulation of the potential buyers' enjoyment of the music. Which is two totally different approaches to creativity and how you use it.

I guess you could argue, with no disrespect to other styles of music, that it is very creative process to sit down and write a jingle that will encourage people to buy a particular product. It's also very scientific. But there's a certain creative aspect to it. There's an entirely different creative approach to writing a piece of music that appeals to you specifically as the writer, that allows you to express yourself, and happens to be appreciated by the buying public.

R. So it's a combination?

I. Yes it's a combination. Which means parameters! What parameters?

R. And the playing field is always changing? At what level does fashion impinge on that creativity? Do you think it's a restraint or is it a driver?

I. It's a driver. It's a driver because it's the opposite side to that self expression thing and it causes people to write more pieces for a specific market that already exists. (Interviewer comments on Peter Sculthorpe saying the more constraints that are placed on him as a composer the better the job he will do, because there are so many choices to be made). Yes – he's saying if you're asked to compose for a particular market, and going back to the jingle, to help sell a particular product; what it does is it puts a barrier on where you can go but opens up creative opportunities because you're forced to think outside the square.

So it's a creative driver really; to deliver a creative process and that's interesting because it's a kind of circular thing. Because what you might think of as a barrier can be a driver to deliver a creative process.

R. While listening to you I understand that you're talking about a whole lot of dimensions of creativity. Other people that I've spoken with have talked more about teaching creativity. Could you talk more about that – I mean the different dimensions of creativity?

I. That's interesting what you say about teaching. I think it is possible not to teach people to be creative – but to inspire people to be creative and I think that more often than not it's done by example. I don't think that that is something that happens in a theory lecture – you know; this is how it is done and this is how you can do it. But you will be an individual.

Informant then talked about a new Training Package coming out on innovation. He considered that you can't set the goal posts for such outcomes because how can you say what they'll be. They say this is what you're going to do and this is where you have to get and you will be an individual.

R. Well perhaps there's something in that – controlled flexibility. That's a bit like what we were saying about Peter Sculthorp's proposition that constraint can drive creativity. When you say you can inspire people to be creative – can you tell me how you'd go about it? What kinds of things would be good to try? How would you go about it?

I. Without knowing the individual I can't answer that because it's about inspiration. I'd need to know the person and what inspires them and what kind of music they want to write. I could show them how I'd do it and ask them how they feel about it. It's about example – to excite people and help them see how someone else is doing it. You can't make someone want to do something. They have to want to do it themselves. So first I'd have to find out what inspires them – what kind of music, what kind of books, who is this person – and what it is they want to do? What's their method of thinking, where's their head at – and then using that to motivate them. Then they can take it further.

One thing I used to say in my teaching days, standing in front of a new group of audio students is, I'm here to teach you – but teaching you is the last thing I'm going to do. I'm not going to actually teach you anything. I'm going to guide you and try to show you what can be and the rest is up to you. I'd engage the group in discussion about the subject, about the tools about the instruments – whatever it is, and that would bring out pieces of information that I could grab on to and put up for discussion and soon they'd be coming up with words, ideas and things that make sense and you could chart these words that could relate to what this machine etc was about and in the group invariably they would start to talk to each other about what this machine or whatever could do. Just by feeding little bits of information and dragging things back.

R. And you think that that this sort of group strategy can be done with music. (I. Yes) Do you have a theory about the importance of the craft; the technical skills. Can that be done separately from the creative skills?

I. I think you can do it quite separately it can be done with anything. I mean in building – how do you use the hammer and use it properly – but where do you put the nails? That's your decision. It's a tool.

R. You mean then, say for music, you're saying it could be the degree to which the person involved in the musical activity takes part in the actual design of that activity. Rather than someone playing a piece that is written down, or heard, and they're going to repeat it – that they're going to interpret it or play something new? They have to have the technical ability – but this is adding the dimension of being involved in the design of the product as well.

I. The technique is just one part of it. There are many people with amazing technical ability in all sorts of industries; like people that are brilliant readers of music – but do they just churn it out, or can they make something new? But do they have the creativity to do something new, to write their own original piece to develop their own that inspires people as much as the piece that's written down? Like – there are people with beautiful brush strokes but do they paint something that says something – to other people?

R. So it's communication too?

I. Yes absolutely. That's back to my strategy in the classroom – it's communication – dragging out those few words out and using them to stimulate their thinking. So what you've actually done through this

process is you've helped these people through figuring it out for themselves, to stimulate their creative thinking. (R. so it's the Socratic approach – bringing out what's already there). Yes as opposed to you will do it this way – press button A etc. etc. – thank you very much.

R. What you've said to me is that one of your conditions for developing creativity is you'd develop the environment in which people can try things out?

I. Yes the opportunity has to be there. Also having the right group – but every group can be the right group but each group is different.

R. But that is one of the keys for you as a teacher – developing the learning environment. And on that you were saying also that one of the keys is individuality? Could you tell me about that?

I. Yes there are many dimensions to creativity. There are no boundaries. (R. But we were saying there were). No there are no boundaries to creativity. There are boundaries to the results people wish to achieve. And within those boundaries they can be creative again. So in doing that it's an infinite world in a world.

R. From where you are in the industry do you think that Training Packages have a place in industry?

I. Yes. They're perfect for industries such as metals. Any thing to do with the shop floor where the process is already defined and all you have to do is to fit into that slot to fulfil your obligations; and to put the peg into the right hole.

R. But do you think in music

I. It doesn't work for music

R. How about other industries like fashion or the restaurant trade?

I. We just finished dubbing of some tapes we did for the Whitehouse School of Fashion where we recorded an event for them. It's exactly the same in the fashion industry.

In music you have sound that you manipulate in any way, shape or form to make it say something for you. If it happens to have been commissioned then you manipulate it in any way, shape or form to have it say what the client wants it to say. It's the same in fashion you have to say how it will look or how it will express what the commissioner wants. Unless you're designing a new line of underwear or something where there is less room for difference (divergence, innovation), or a tracksuit for a football team or something where the parameters are already fairly well defined.

R. Is there anything that can be defined in music?

I. Yes there are some areas that are more defined, such as in music technology and sound production. For example you would have to use a particular microphone for a particular result you're trying to get. But having said that I can give you many examples where people have deliberately used the wrong kind of microphone to get a horrible sound to make a statement; to say something (– eg, dirtying up the sound), say by having the microphone up too loud, or using the wrong mike; to say something or make something new. In other words – getting it wrong.

Without that rock music could hardly have been generated. One could argue that technically speaking, if you were going for a quality sound, what we call quality sound, and that is one that doesn't have square waves – distortions – if that were the case then contemporary music would not exist because you'd never have had distorted guitar. And without that the contemporary music industry would have fallen over because the whole contemporary rock scene is based on distorted guitar.

R. Can you talk about your ideas on creativity as it applies to the producer. Is there a role there for creativity?

I. That's an interesting one because the producer has to do one of two things and that is to determine where the artist wants to go and help the artist to where they want to go; including getting them to where the client or commissioning body, record company etc says they want them to go. They provide an opportunity for artists to make their statements, a bit like my classroom approach, and collectively come up with this body of information that they can then put onto tape. Some producers are more directive than others in facilitating the artist or artists. Some will use the kind of group strategies I mentioned earlier and

involve the artists in a collaborative way. Others will just listen to the artists to help them achieve what sound they want. They might make recommendations on arrangements.

They have different approaches eg in the eighties Scott Aitkin and Waterman. Three guys from the UK that were really popular and they produced all sots of people like the early Kylie Minogue albums, the *Bananarama*. In those what happened was that producers were being commissioned by record companies to produce a specific sound – a sound that had been successful so as we said earlier on this tape – there was a defined success. We have a target. We want to reproduce this. And so if you go back to those days what you find is that a lot of the pop acts sounded the same. You have the same arrangements, the same rhythm fields, the same sounds, the same techniques used to create those sounds.

But then you can go to the complete other extreme and you have producers like Peter Gabriel who will just produce totally different results with each artist that he works with. There is a Peter Gabriel sound but it's different with each artist. His work has less producer stamp on it.

And then you have producers like Mark Lang who has produced with people from ACDC to Shania Twain and those are poles apart. I think there are little things in there that are definitely Mark Lang – little arrangements but it's the artist – so the stamp of Mark Lang is not evident but that's not to say that he hasn't had a big influence its just to say that his way of doing it is to ensure that he's bringing to you the artist. He's a facilitator.

Interview concluded due to informant being called away.

Conversation 3: Performer / High School Music Teacher

The informant is a performer and former a high school music teacher. The informant was provided with a written text of the questions prior to interview as well as copies of eight Units of Competency with relevance to creativity from the Music Industry Training Package 01.

R. What I really want to get out of this interview is to what extent do you think the standards are likely to be useful, or not, in the development of creative skills in music?

R. Q1. How would you describe creativity in music and what is its importance?

I. Well I guess music has many spheres. There's composition, performance are probably the main ones but listening is also an element and creativity differs in each of those three areas, but the guts of it is it's the ability to put things together in a way that they haven't been put together before that will have a musically sensible result. So for the composer, for example that means combining sounds within the elements of music in different ways. But there are limits, I guess you can put any old sounds together in any way you like and it can be creative, but its effectiveness as a cultural event is the extent to which it plays on people's pre existing knowledge and yet pushes the boundaries as well. So you can have random noises if you like but that's not very creative because if there's no framework the music doesn't really make sense.

From the performer's point of view it's slightly different again. If you're improvising it's more like the composer's activity except that it's a real time activity whereas if you are performing already written music the interpretation of that music is where the creativity is applied. So, for example, although the black note on the page may say it's going to be a particular pitch for a particular duration it may be entirely different in performance. It may be a portamento going up to a high note and the shape of that portamento is entirely up to the performer. Its shape is not dictated by the composer.

R. Do you mean the performer has to make creative choices as well?

I. Absolutely! How the performer does that is first of all how do you apply the portamento, what is the shape of it? Is it a rapid one or a slow one? All those sorts of decisions – is there a crescendo with it? All of those little nuances are not specified by the composer so you have to draw on a number of things. One is other people who may have performed it, from recordings. But if you're fresh to a piece of music it's always going to be your own interpretation of that and that's really where the creativity comes in.

R. So there's a freshness – something new?

I. Yes. There are constraints though. There are cultural expectations I suppose. It wouldn't do to play a Beethoven sonata on an electronic keyboard without any sustain, for example, so that you only get short notes that are all detached. While it may be a creative thing to do, culturally it has very little to offer. So you're always working within a constraints while it may be creative it's worthless as a piece of art.

R. Q2. How do you define the outcomes and conditions for developing creativity How is it done?

I. In terms of the outcomes it's the ability to apply principles learnt in a different context to novel contexts. For example there might be a harmonic progression that suggests at a particular part in the music there should be a climax. So you might have a tendency immediately before that to do a crescendo so that even though it may not be marked in the score. So even if you've never done that piece of music before you only know from having heard lots of music that it might be appropriate to apply the crescendo just leading up to the climax. Or perhaps to then apply a bit of rubato to hold it back. So its knowing from experience (and knowledge) of the style when and where to apply things that the composer hasn't specified. It's applying old approaches to new circumstances – appropriately to the cultural understanding.

In terms of the conditions for developing creativity in music it depends on how you learn – but it's a bit like learning language really. As infants you start off making garbage noises really – but your parents are so goo ga over you that they think it's wonderful and even though you're making no sense they don't reprimand you for it. They encourage you to keep going. I think music has to be the same thing that experimentation must be never criticised. The onus on the teacher is to not do anything to discourage the

student, particularly in the early years. Later on there may be advice on how to apply something in a better manner – such as how to do a portamento. That's something that can be learnt later on by having a tutor instruct you. If every time you do something original the teacher says no that's not what's written there that will squash creativity pretty quickly. There has to be room to explore and experiment – especially in the early stages of learning.

R. Q3. Are there creative and non creative aspects to being a musician and if there are should they be treated differently in training?

I. Yes there definitely are. The technical skills, if you're looking at the high end, the high point of performance excellence, are taken for granted. And it would be impossible for anyone to reach that sort of technical perfection, to be at that level, without a lot of non creative work. That is just building up the technical facility and practising things and being corrected on it. For example for a pianist playing scales – there's not much creativity happening there – but its building up facility in the fingers to play metrically, evenly and to produce good tone (needs to be done (a tool) to reach a stage of excellence in performance) consistent dynamics finger crossing in an appropriate manner – more like drill. Freedom is not as appropriate there.

From a teaching point of view though it's still important to provide encouragement, for example by making sure that the repertoire is well within the current technical capability. There's also a mix though where you're trying to push the technique of the student. But in terms of teaching them to be musical, to be creatively musical you're probably better off having them play pieces well within their technical ability and letting them explore the range of parameters within that. Whereas if they're being challenged technically all the time they never get a chance to explore the musical limits creatively.

R. So do you mean that in order to be creative people need to be well within the scope of their technical ability?

I. Well it's not exactly that. It certainly helps if they're there, but that's not to say that you can't be creative even with zilch technical ability. That's perfectly possible but it's not going to bring you to the heights of possibility. It's a bit like even though people aren't athletes they can still run.

R. And do you think that applies in commercial music?

I. Without looking at it from a commercial but from a musical point of view, yes it applies very much. You're going to get the best musical result if you have people with technical ability playing well within their technical ability. If you take a virtuoso guitarist like Eric Clapton or someone like that. If you had a guitarist playing that exact same music but they weren't technically up to it they'd be battling the technique so much that they wouldn't be able to freely express the music. Whereas for Eric Clapton it's well within his technical ability so he can put heaps of expression into it.

R. Q3. What about differences in assessing technical skills and creative skills?

I. Yes I think there is. Technical skills, say in the case of the pianist it might be just the ability to play a scale. Playing it evenly, even dynamics, even speed with all the correct fingers and all those things are very easily judged. But creativity, you have to apply that to some music and perhaps one way to measure it might be to have students perform a piece of music that is new to them – but well within their technical ability. But if you give them something they have to sight read it must be well within their sight reading capability otherwise you're testing their sight reading ability and not their creativity. Only if it's well within the technical ability can you then have the cognitive brain space to express musical interpretation and that's what you're testing for – particularly on a piece they've never seen before.

R. So room to experiment is that a key feature of creativity?

I. Yes – or having enough brain space to experiment. If all of your brain space is taken up with meeting the technical requirements you're not going to be able to play creatively.

R. Q4. How is creativity Important for composing, improvising, performing, musical direction or studio production and how would the role of creativity be described for any or all of these?

I. Musical direction's an interesting one because this is really guiding other people. So I guess its almost taking the role of the tutor. To open the student or the performers who you're directing up to possibilities

that weren't there before. That they may not have thought of before – that seem obvious, but just because it's someone with a different ear. So they may see opportunities that the performers may not have seen and yet are perfectly capable of executing. And when they point something out to them as to how they might improve something then the performers can take that up and you get a better result.

Also studio production you have to make sure that you get a sympathetic rendering. That you make the most of what's being recorded. And even simple things. If you have a classical singer that you don't have the microphones placed too closely to the singer whereas if you have a popular music singer they would be used to being miked more closely. And there are so many different combinations of instruments and possibilities that a producer can't take a formulaic approach. So lots of situations require an intuitive approach. So creativity is required, for example even in decisions about where to place the microphones etc. And there are lots of encountering circumstances that have not been encountered before; so if you have a purely formulaic, or, technical approach it's not going to be very creative. But if you develop a good intuition so that you can say OK in this circumstance I'm going to do this a bit differently, for whatever reason, then there are certainly very creative decisions to be made in order to bring about the best result.

R. Q5. What were the best features of you training for developing creativity?

I. One of the most important things was lots of time and freedom. Also the desire to experiment so that you actually sit around for hours on end and just muck around at the piano and not produce anything of substance or improve your technical facility but you're just generally exploring, getting familiar with chord progressions. Testing melodic fragments out – the interaction of all sorts of musical elements. While to the outsider might seem like just a complete waste of time playing; playing is the operative word. It's that child like approach to things where nothing is wrong – no criticism – just freedom.

R. Q6. You've answered how you developed your creative skills – but could you say more about what strategies you found most effective?

I. From a student's point of view it's important that you experiment and you've got to be allowed to get things wrong and then try them again and try a different way. Whereas its often important too when you do a thing wrong and then you do it right that you do it wrong again just so that that you're very clear about them so that you can get a feel for it. That's especially important for a singer I think.

There are two different skills the technical and the creative. The teacher deals more with the technical side and the coach with the interpretive, or creative, side (in the case of a singer).

Another important role of the teacher is to provide the best repertoire choices to encourage the musical and technical skills to develop for each student and that will have to take into account the individual needs, stage of development and potential of the student.

For composers as they're dealing mostly with the structure of the music they need to have mastery of the form, as do performers but from a different perspective. The teacher can use their experience and knowledge of the compositional materials to help the student. Students need to be guided towards that understanding with direction by the teacher.

R. Q7. What do you think could have been improved in your musical training?

I. In my case I don't think I learnt technical facility early enough. I'd have liked to have started earlier because I think music is very like learning language. If an adult learns a new language they will always speak it with an accent whereas a child won't. So somehow the child learns it much better than the adult does. Most commercial musicians probably don't start that early and still get good results but I think the advantage of learning early goes for all music.

Your chances are maximised by starting early and that might just be being exposed to a wide variety of music. And that's not necessarily being able to play – but being immersed in it. (eg of Bertrand Russel) The more diverse the better.

R. Q8. What advice would you give to teachers preparing students who are aspiring to a career in the music industry?

I. Technical considerations are developmentally important early on, and then creative skills can develop. For young children this doesn't apply because the two go hand in hand. They don't say I'm going to do some technical work now, or I'm going to do some creative work – and that's fine. But in terms of becoming a serious (career) musician you have to develop the technical – there's a sort of technical bottom line. If you don't reach that it doesn't matter how creative you are you're not going to come up with a reasonable result without the appropriate technical skills. As to how good is good enough in terms of technique is a matter for argument. It depends on the difficulty of the music you're composing, performing or improvising, or whatever.

Technical ability is mandatory but without creativity the end result is worthless. Nobody wants to hear a recording of someone playing scales.

R. Do you think it's important to specify the appropriate creative outcomes you, or you student's wish to achieve?

I. Not important – but definitely helpful. It may not be necessary but it can help in that both teacher and student have some point that they're working toward. So that if you can specify creative outcomes and measure them and have some point of comparison so that after a certain length of time a student can do these things – say – apply a crescendo appropriately to attain a climax. For example they may not yet be able to use rubato – but you can add that later on. You can take a checklist approach to the appropriate application of musical elements that are within your discretion.

If specifying the outcomes is the be all and end all ie, if specifying the outcomes becomes the sole purpose of education then you've lost all the freedom. At the best the reaching of outcomes should be an indicator of where the student is up to. It shouldn't be something that's prescriptive – that says OK the student can do these things therefore they've attained this level of creativity. It's more like a good indicator of where they're up to. Whereas I'd hate to see the student being limited in their practice and playing – in the child like sense of playing to be only focused on those elements that you're measuring, because it's the interplay of them that's important. Even if you could list every element at a performer's disposal just because you could put a tick against them doesn't make them a great musician. It may be an indicator that they're on top of the material but it's a necessary but not sufficient thing.

R. If we could refer back to the standard that we looked at "Develop Self as Artist"; do you think that kind of format would be helpful or counterproductive in training a musician?

I. I think they're ideas worth thinking about. But some of them are a bit nebulous in a sense. I'm looking here at 'develop own creative voice', 'explore and experiment with new ideas in making or interpreting music'. Now a three year old can do that and so can a very sophisticated concert pianist. Until you start producing a graduation – yes – that would get a tick I suppose, regardless of who was doing it but it doesn't set a standard.

R. Do you get any help from the range of variables section?

I. There's certainly lots of ideas that you can talk about in terms of rhythm, pitch, elements – all those sorts of things but once again it's difficult to say what do you consider a Certificate II and what do you consider a Certificate III, or an appropriate level performance or an appropriate level of self analysis.

R. Any help in the Method of Assessment section?

I. Yes I think with methods and context of assessment all those mechanisms mentioned there like observation, oral questioning, process diary tapes those sorts of things are good indicators of their creative development – but it's difficult to establish a sort of grading across those. You can say yes they're developing as an artist – or no they're not developing as an artist from those methods of evidence collection; but how do you decide what's appropriate for a Certificate II or for a Certificate III. That gets pretty dicey I think.

R. I should explain that the unit "Develop Self as Artist" wouldn't stand alone but would be undertaken in combination with other units, and it would apply for example with composers. It's the generic competency and would be undertaken with other units and it would be the combination of these that would provide the grade.

I. The other aspect of learning creativity in performance is I think there's a lot to be learnt just from mimicking other people and that's another way of incorporating techniques into your own performance and then you can apply the techniques that you've learned that way in novel situations. So imitating great singers or guitarists – just learning their pieces and learning to play them the way they play them.

Discussion ensues on performances by renowned opera singer, Jessye Norman and blues rock singer, Janice Joplin, of the aria "Summertime", from George Gershwin's opera, "Porgy and Bess"; Jessye Norman with classical craft and Janice an extreme case of creativity and musicality with little technical facility, but raw and compelling emotional communication and creativity.

R. Q9. Would you comment on the creativity items contained in any of the standards provided for their relevance to developing creative skills for success in the music industry?

I. Regarding the competency standards and their use for assessing creativity – I don't know. I think they're certainly a good indicator – certainly the one "Develop Self as Artist" – there's lots in there that would be very good indicators of creativity. It's certainly not a prescriptive thing. There are lots of ideas that may assist teachers in thinking about how students may develop competency in creativity. Just by keeping a process diary, for example may be something they may not have thought of and it certainly helps in terms of getting people to evaluate their own creative aspects in their own music and merely being able to articulate it is a good step on the way.

Even if in some instances you can tick all the boxes for a student and they might be creatively completely flat. I think the chances of that happening are pretty remote. I think if students can grapple with all of the issues in that standard for example, it would be very difficult for someone who was totally uncreative to meet the requirements and to still be totally uncreative.

I guess it's a matter of grading it within the context of their technical ability because you always have to look at it within the realm of the technical ability. If their technical ability is zilch they may be creative but it's not worth much because – what can they do with it?

R. If I were to tell you that there are six other standards for technical ability in performance in the complete set, graded at different levels. There's one for beginners, intermediate right through to fairly specialised recital standards. If you match that with this standard "Develop Self as Artist", given that the technical standards are at a suitable level – do you think that taken together that could provide a suitable framework within which to assess people?

I. Yes I think so as long as the assessment for creativity always sits well within the technical limit. For example say someone who's done sixth grade piano might be asked to sight read a third grade piece and exhibit a musically creative interpretation of that piece.

Conversation 4: Artists Manager

The informant is an established Artists Manager and Agent, highly regarded in the industry. This informant requested not to have the list of questions provided – preferring a more spontaneous approach to the questions. In the event the conversation took an open ended style. Although this informant had been involved in the development of the Music Industry Training Package 01 his interest and experience is in industry rather than education. He did not wish to comment on specific items from the Training Package.

R. Q1. The question asking for a description of creativity and what it means for the music industry was asked prior to switching on the tape recorder.

I. I imagine creativity would be the ability to express your feelings and your thoughts and to convey a message in a non-verbal way. Well actually in literature it's doing it through words and for a musician it's doing it through an instrument or your voice. It's creating a message as well as delivering it.

R. In terms of the music industry – your music industry – what is the significance of creativity – when you manage artists?

I. Without creativity it wouldn't be worthwhile being involved in. Within the pop culture you can manufacture. Now there's an element of creativity about that. There's an element of research, there's an element of copying and cynicism – going this is the market – now we will create something for that market. Now that requires a creativity most certainly – but it's more of a learned creativity, if that makes sense, as opposed to an instantaneous, or inner creativity.

From my point of view I get no enjoyment out of the manufactured one, the fixed format. I get the least enjoyment out of that, but the two projects that have brought me in the most income peripherally have both been that. And that is working with my client to produce (names highly awarded and successful pop group). Now there was creativity there – and that shows a bias – I'm putting it down – it's not manufactured – there's an element of being contrived about it. And of course they went on to sell 17 million albums.

I suppose I'm just saying to myself for the first time how biased I am to different forms of creativity. That there's creativity that I respect and admire because it's true. And yet I see that the guys in (same highly industry awarded pop group), for example totally believe that what they do is spontaneous and – well have to go back a bit – it's the selling of it.

R. What about say, *Cat Empire,* who seem to be so creative compared to, say *Human Nature* – who I know are also highly trained classical musicians – but I don't get the same feeling that I get from *Cat Empire*?

I. And yet it is creative. I guess it's the packaging and the marketing that seems to denigrate the creativity. And just going back to *Human Nature* or (previously mentioned client pop group) or whatever – there's every bit of the same ability to write to express their feelings, to get their message across as serious – as jazz – or any form of music so what I'm saying's actually wrong. Because it's in a package and it's neat – no roughness – no edges – no it's never going to make the hair stand up on the back of my head – that I shouldn't be defining that as lack of creativity. There's something else that's coming into it. So I hadn't thought of that.

R. So it comes in different forms?

I. Exactly. As without creativity within our industry there's no industry. There's nothing. If you start with the premise that it's the song is the thing. It's the person who creates the song which personally I'm most in awe of. Musicians with superb talent I enjoy, but songwriters I'm totally in awe of.

R. So you think it's the compositional element that inspires and fires? And without that you don't have anything really? And what about individuality? You know in our culture the individual is so important. Is that reflected in the music industry?

I. Yes I believe it is. If I look at a band the band will usually have one person who is unique. Major bands that have people who are unique in their creativity as the drummer, as the bass player, the vocalist the

guitarist are very rare. Often they're not given a chance to. The drummer and the bass player are put in the back.

And yet you see always one – the person that is the writer that.... You often say that person's the front person and this one's the creative person – within a band. They may be one and the same but you hear that all the time – they go yes so and so is the guitarist or the singer – he's the front person – he's good at that – but Jo – or whatever – that's the creative spark. As manager you try to make sure that the creative entity has the space and the freedom within the band – within the record company – and within industry to do that.

R. So would you give that person the responsibility of promotion?

I. No – but they'll often take that. But I've seen at times if we are on tour, or if there's an album coming up, and so I'll try and make sure that two of the other people do the interviews if it's interviews, perform, travel interviews. But of course everyone want's to speak and it's the creative person that's identified very quickly and it's that person that's usually the most outgoing.

There's a really interesting thing's just happened in thinking of creativity and (…). The (another famous client band) – you know – their first album everyone loved. There's just been a version of that album done that came out last week. It's all of (the bands songwriter's) songs – all songs that the band did. But there's fourteen different artists have done the tracks and they're the top bands. All of them have chosen to do a version of one of the songs and it's been put out. That – when I listened to it the other day for the first time – was such an experience because they're songs that I know intimately!

I know how (the client band) have done them. I've heard other people doing them. But listening to the creative aspects of the bands that have gone – we'll take this song and we'll make it ours – put our own creativity into it. Change the (…), change the tempo, do whatever. That was exhilarating! There are some that tried to do a note for note copy and others that have gone oh no – we'll take this and put our stamp on it.

R. That's great to hear (story about how to include performance as a creative activity – Janice Joplin and Jessye Norman's versions of *Summertime,* from Gershwin's opera *Porgy and Bess*, and how this demonstrates the point).

I. You take Chris Christopherson and Carol King. Both were songwriters in booths – they were not singers – not performers. When so many other people had taken their songs and made hits of then the record company in both cases said well why don't you sing them? Why don't you do an album of you? *Tapestry* (tracks) which so many people had done them! Carol King had never done them. She was a songwriter not a singer. So all of those versions and it's still one of the biggest selling albums in history.

Chris Christopherson all of those songs that he did – and he's certainly not a singer that you would say oh that's magic – but it was because his songs were known and he did them his way. Jimmy Web is another great example of that. You listen to *Wichita Lineman* – the way that he wrote it – and you go wow! That makes so much sense. Chris Christopherson's *Help Me Make it Through the Night* – you know it's just one of the most magical songs.

R. Studio production. What is the element of creativity there?

I. That crossed my mind as you were talking about it. Structure – and often with a producer the spark that will take the song when it's presented – when the songwriter's come in and they've said "here's the song". To be able to isolate the main feature of the song – the little spark – now sometimes it might be so hidden – but to go "we have to emphasise that – that's the hook in the song – that's what's going to make it great".

Like Rick Ruben with the American recording series of Johnny Cash. The last three albums that he did. Now Johnny Cash'd been around for many years. Rick Ruben took Johnny Cash in and did standards with him plus songs of his own. Now this is a man who was getting into his eighties and a few years away from dying. And they are the most exquisite recordings, because Ruben's creative skill was to make it all simple. To go – "we'll put some stunning musicians there and we'll let this voice and this story teller sit on top". And I don't know anyone else who would have touched Johnny Cash. No one would touch him. He (Ruben) did and they're classic recordings now.

There's producers – it's really funny – the big producers are held in such awe and are paid such big money and the record companies and the big pop stars recognise their input. For some reason though, once you get down out of the super stars – people – the artist and their ego – tend to believe of the producer – "I don't want you to interfere too much". So it's engineer producers who they're getting in and it's a real shame. It's the lack of producers who are not engineers – the lack of use of them in this country that has I believe really, really hurt us. You go overseas and get a producer. But when it's here, in order to save money the artists and the record companies will go – "right! We'll hire an engineer who's an engineer producer". And they go "Hey! Let's do this! And then if it works – we'll get a producer".

To give the producers their due – and I manage quite a few of those. And quite a few times I just say to them "say no". You'll engineer or you'll produce – but for production you'll have to go away with the songs. But because they're not paying you as a producer. If you're going in just dealing with the songs your not getting paid for that and you have to earn a living so you'll just continue doing the engineering ones.

And to be able to sit back and go – as (names client – a respected producer) my client does – and he would be one of the top producers in Australia's history – and he doesn't engineer. It was always a matter of huge fun for us that the one album he did engineer was (the famous highly awarded client pop group album) – simply because he recorded it in his daughter's bedroom – the whole thing and its one of the biggest selling albums in Australian history. So he won producer of the year and engineer of the year and all he did was engineer. So I'd jokingly say "well now I can sell you out as an engineer", and he'd just glare at me. But he – he sat – he sits back and what he brings to a recording as a producer – because that is his talent. That is his job.

One of the things that allows creativity is the money, the time and the space to do what you do well. When it's a number of other things – the artist doing interviews, the producer engineering, the guitarist having to manage the band, the doing day jobs – whatever. All of those things really do curtail the space and time for creativity that's really necessary.

R. So in a way it may be that the more successful you are the more chance you may have to lock yourself away and just play?

I. And if you believe you're good. So you might be good – but because of the nature of this industry if you say you're good and people believe you're good – then I believe you only have to be half as good as you should be in order to get to the same place. Because of the B S aspect of our industry – because why bother!

R. Can it work the other way? When you become famous the less creative you become? Maybe you (and your backers) have more to lose and there's pressure to perform?

I. That has a lot to do with credibility. A number of artists who are very creative and very good but have taken the wrong career step – that have done a Coke add on their first single – and as a result are then often dismissed – and looked as that their creativity is diminished because they've sold out to commercials and that's a real shame.

Nowadays people say that everything's on TV – everything's in adds – that's all right. But you know that you're not going to walk around with a t-shirt or a cap or proudly waving a CD of someone who's just done the Pepsi ad on their first album. It's not cool.

But kids accept commercialism much more (are less rebellious?). You go to the Rumba festivals where the artists are coming out and they're not singing themselves. They're playing into a backing tape. Most of them are miming the words. I was going around asking kids who're paying $80–$100 a ticket – "what do you get out of this" and they say "it's the spectacle, the lights" – I mean it's 5 O'clock in the afternoon! There are no lights! So it was the group gathering they went for and kids accept that. To say at least "I saw her", or, "I saw him, or I saw them!"

Now they might not have been singing – they might not have been real music and where was the orchestra when the strings came in? But they just accept it. So that's a whole different thing in looking at creativity. But that's where the commercials and the selling and the packaging comes in and I become a little – well very cynical and very biased towards viewing the creativity as being missing.

But with advertising – with success diminishing creativity? People usually start in music not wanting to do it for the money – but as an expression – and for a lot of other reasons – you know – the guitarist gets the girls, the singer wants – expressing your ego – rebelling – you know all of those other things. But they want to express their creativity. Once they do, the pressure to maintain that is much harder. It's looked at. The bigger you get there's more people want to bring you down. So your success certainly influences your creativity.

As I said about space and time and the ability to be able to express yourself; until you've got success you have all the time in the world usually. Then other things start to come on top of it – the band depending on you – record companies pushing – your peer group pressures, critics – everyone going we want this to be good, or, we want you to fail or whatever reasons – that goes on. And that often impinges on someone's creativity, or how they can express it. Now they either break through it, they deal with it, or, if they decide to take a different tact and really go I'll be influenced by those pressures and be really successful because then I'll go back and I'll have the financial backing and the financial freedom. I don't have to prove anything anymore. And that having to prove yourself, for creative people, just must be the devil sitting on your shoulder – at all times. It's hard enough to prove it to yourself – let alone prove it to other people – no matter what stage you're at.

R. How is creativity important in any of the activities of composing, performing and other music industry activities in relation to the market? For example does creativity make up 50%, or 30% or what part of the music product.

I. The moment you bring market into it that's a different matter. You change the whole question. What's important about, or how important is creativity? Starting off before the market, it just defines who you are – as a soloist artist – a solo musician. When it becomes a group, it defines who the group is. Once you start to get into the market it then defines what the brand is.

R. I heard this morning about the Wiggles. How the band becomes the brand. They try to maintain their original concept, with a belief in creating good products that kids can enjoy – even though they're now a $45 million business and they're franchising the product all over the world. That seems to me a nice, simple example of that tension and pressure.

I. That's a perfect example. Their creativity was very strong, very focused and very simplistic in knowing "this is who we are – this is what we want to do", and they did it stunningly. And they had the ability to not have to vary that one iota.

They were the Wiggles when they were the Cockroaches – Jeff and the guys! You look at them – you speak to them – you toured with them – and they are the people they were then. And I don't know anyone in the industry who would see them with cynicism because they're getting out and doing that because they are the same people – on stage – the same bounce – the same everything.

(Discussion about role of playfulness in creativity eg, Cat Empire. Informant mentions the Stones.)

I. You go and stand right by the stage if you get an opportunity with the Rolling Stones and you look at Keith Richards – Charlie Watts and you look at these guys looking at the audience. People respect Mick Jagger because he's Mick Jagger – they love Charlie Watts – they love Keith Richards because they can identify – wow – this is a gig – you've gone well and you've stuck with it because you're so good at it and there's that fun because they're up there and they're having a laugh and going wow this is ridiculous and we're making another $80 million and we're having a ball and look – so are every one of you.

R. And what about the other side – the dark side of creativity, eg Kurt Cobain?

I. That was a creative pressure. That was a lifestyle. That was a culture as well. It was part of the reason for the success. It was part of the marketing. And then it was all of the other personal things that went into it with him.

I've an artist who I've been dealing with for years and years. She did an album for EMI and I don't know why EMI did the album because it was so uncommercial. Very personal – and very dark and whatever! And that was 18 years ago. And I saw her last week and it's as if nothing's happened and she's still going "I want to put together another album". And she's still writing and won't hear of other avenues for her to display her creativity. She's hanging on to the commercial side – "I'll get a record deal". I say no you

won't. Just put out your own record, do gigs – whatever. The first thing she said to me was "I want to win an Aria award". She wants recognition of her – for all the people that she went to school with that went "Oh you're weird". She needed to use her creativity to state who she was – and to validate her life so it's a success that had to be validated – not simply people listening to her music – that connection. I love when I see even with very successful people – but they know when they've connected with one person and they go – wow – that's great – let alone the mass market.

I would advise her to keep doing what she's doing. I would never advise her to write different songs – to perform in a different way – to ever be anything other than what she is. I wouldn't want to interfere with her creativity – ever – but to look at why – not what she's doing – but why she's doing it.

R. What's clear about everything about what you say about creativity shows the respect that you have for creativity. Not necessarily as a short term commercial product (meal ticket) though. That's not what I would have expected of a music manager!

I. Well you see that artist didn't have the right tools yet. (And that's why she was a one short time prospect for a big record company – and not an enduring talent)

A friend of a friend wanted me to hear a demo of a 15 year old girl. Her folks thought it would get a record deal. I listened to two of the songs and there was one song on that that was really superb – with depth and feeling beyond her years. They said "well get a record deal" but I advised that she keep writing and keep working to develop a body of work of that quality. If you take it into a record company I dare say they will have the same reaction. They will say "Oh yes that's great". Then they'll sign you to a contract and say: "go away and write some more". And then you'll wait for five years to hear from them – or they'll get you to write with people.

You're much better to develop in your own time; in your own way. And when you've got a body of work to take in – because you're not going to be a pop singer – you're not going to be going Ta! Da! Lets put some oil on and some skimpy clothing and a backing group going Ta! Da! It's not a dance mix. These are really exquisite songs that have an intellectual aspect to them. So put together a body of work. And they said but we've got lots and I said do you mind if I play these five songs to a producer because maybe I'm missing something. I'm not a musician but I'm not getting anything out of these so I'd like to play them for a person I really respect.

So I played them for (renowned producer client) and said is there anything you can see in these that you could bring out. And he said, "I wouldn't touch the first one – anything on it – because it's just magic. And I wouldn't touch the others because there's not one little bit of interest to bring out. She's obviously very young". The parents were furious when I went back and said that. But I said, "well that's a really respected person". And they said, "well if that's the music industry" etc. So that girl is never going to record – and that's such a shame. Because for only very few does it come spontaneously. Creativity – you have to work at it – to develop it. You have to identify it and nurture it.

She had a lovely voice – but not something totally special – her voice was stunning for her own lyrics. It had a truth to it that just overwhelmed you when you heard the one song. In pop music you can have that one single. For the record companies they go "Oh! That's all we need – with one hit single we can sell 20,000 albums", and that's worth the money – and they don't care if you ever come back again. That style of song she was writing was not one of those – it was a Janice Ian (highly awarded American singer/songwriter) song a Tracey Chapman song it was a *Holey Smokes* kind of thing. It wasn't a dance mix. So she would've been signed and they would have the contract for the song and with her for a period of time – but they would say "now you're very young so go away and we'll have another look when you come up with something". Useful to the record company – and that would also mean she could write, perform and record her own work for other people – but not release with another record company.

Most songwriters want to write for themselves. They want to perform their songs. A famous singer/songwriter client and (earlier mentioned) famous producer recorded a very famous country song with the singer's band. The artist – when the producer did it the way – he did it without its vocal – the artist walked out of the studio in tears saying "You've absolutely decimated my song". It lacked the feel. So the album went out and did really well and the artist said "I'm not going to let that happen again" – and he left the band. And we went back to him twelve to fifteen years later and said we're going to make a record label around songs and you're one of the best songwriters around. He and the producer had

become friends again and the artist and I formed a new band. We put that band together and got a good looking singer and came in, and again it became the biggest selling debut album in Australian history. And again the artist said I don't like what's happening to my songs and again he left the band – though we're still good friends. It's just wonderful seeing a songwriter to kill for in those really commercial aspects and statements.

R. Now that's performers, producers and songwriters. What I'm interested in is can it be specified? Back to the standards, and the Training Package, if you remember we were trying to specify creativity?

I. The identifying the nurturing and the enhancing of creativity should definitely be in there. But I don't know that you can teach it – creativity. I'm passionate about music. I couldn't write one line of a song. I couldn't play and instrument. I can't carry a tune across the street. I'm not sure that I could be taught to do those things to a standard. I'd love to – but the truly creative? Now is it creativity you're teaching? I don't know? I think you're being taught skills to bring out certain innate abilities.

R. Creating the environment? That has these elements? Creating the space in which to play and develop ideas?

I. The creative person doesn't need those things to be creative. It can be enhanced in that way. The creative person that has it in them – I believe it's just – they can't help it. If you try and stop it you might curtail it. But you can't get rid of it. The same way that I don't think that you can create it.

(discussion about people doing their own thing)

R. What is the place of technical ability then in creativity? With all of the technology available can some people create without having the technical ability for example of Jimmy Hendrix on guitar?

I. Well now you could have Jimmy play for you. You can manufacture anything – but it's predictable. If you sit down with your computer – pro-tools whatever – and you have everything sampled. And you have a modicum of creativity – and you go "well that's a hook that worked there". You can sample hooks and everything else to write to a formula. Now that takes a technical creativity to go – "I'll copy this. I'll take what I think are the commercial aspects of the top twenty commercial records last year and I'll make a new record combining all those". The sound, the feel, the direction, the tempo

R. Derivative?

I. Absolutely! And a lot of people succeed – the really talented ones – can manufacture hits like that. I really feel I'm showing my true colours and my bias when I say that about 50% of music that's coming out is like that. With companies and radio stations going as well – OK! Female groups are out. Solo males are in! That was a hit. We need another one. That's what people want to hear. And there's a place for it. There's remuneration for it and the people that do it are creative at that and should be proud of themselves – as repugnant as I think that might be – but it's like a production line!

R. So what you're saying is there're all these different types of creativity?

I. Yes! An idea – and that's where it always comes from. Someone had to sit down and think I'll copy this. That's an idea – not a particularly valid idea.

R. Is it only copying – or could it be putting things together in a new way?

I. Yes! If we look at dance mixes – extended mixes. Very creative! They – and again I'm showing my bias – I enjoy it, but I'd never sit back and say this is one of the great art forms. It has a social validity and a cultural validity and it's adding an element of an individual's creativity to what's already there. And philosophically every creation is using things that have gone before it. But dance mixes are using the sounds and equipment and technology again it gets back to the technical aspects. There's the musical creativity and the technical creativity which the dance mixers have that are quite stunning. And I think it's limited.

R. Can you say the music industry has a culture?

I. Absolutely – but again it's within the music industry. The independent element of it has a real culture. The manufactured – commercial one has a culture. The folk genre, the jazz genre – so in the small meaning of the word culture.

Altogether? There's the live music industry – there's the recording industry and I wish people would dissociate the two. The recording industry doesn't have to go with what's happening in the live industry and vice versa. People within the music industry would like to record as a means of other people hearing their music as well as just live. People within the recording industry want to sell records and that's their mark of success. Now they can be of the other as well. So they cross over. But it's always been my big bugbear with the big record companies that they go they represent the music industry. And I go "they so do not represent the music industry".

Over 92 of records released in Australia are not released by the major record companies, but by small independent labels while 95% of the record income goes to the major labels. So they say they are the music industry.

(political discussion ensues about the clout of Sony etc.)

Conversation 5: Composer

The informant is a commercial composer with his own successful digital recording business and a number of prestigious industry awards. He works in film and other media. The informant was provided with the list of questions and eight creativity related competency standards from the Music Industry Training Package 01. He was also involved in the development of the Training Package.

R. Q1. What is creativity in music and what is its importance?

I. Right. And I don't have to be brief do I?

R. No, no. Not at all. You're giving me an hour I believe and there are 8 questions.

I. Right

R. Oh, there may be more actually. No there are 10 questions. Yes.

I. To me creativity is obviously subjective and I can't help but feel that what's creative to one person is not creative to another. And I am also assuming, but I am open to suggestions from you. Would we agree that the opposite to creative is, oh, what's the word, and it is but not unique, what's the word? Derivative? Or if an artwork, or if one artwork is deemed to be creative and one is not, one assumes that the one which is not creative means that's because it derives to closely to something else. So a lot about what I believe about creativity is your ability to work within a language that you have been taught and express things to people that they may not have heard before.

So that is on a musical term, but for a painting to be creative its to use the tools that they have (…) that normally for our eye or ears it is a Western education of painting lets say, which is hold a brush, find the paint, perhaps learn life drawing and follow all these rules that would have been taught and then work within them and then possibly push them at the borders. And those of you who create something that is deemed to be new or a new approach or unique will be labelled highly creative.

Its possibly a little bit of a cynical definition, but what I see around me is people who learn a language and I've learnt the language of music just as I've learnt the language of English. Now if I'd studied the language of English I may be able to express myself much more creatively than I currently can because its not my specialty. But just like a language, with music, I am able to express myself with that language that I was taught and if I am clever and creative I am able to express some wonderful varied things – light and colours, darks and all sort of emotions – using that language. And the more unique and expressive I am – again a subjective analysis – the more creative one can consider the output. And for me that is creativity.

Whether it is a God given thing or not, is difficult to make a judgment on. I know I am a child of a musician and therefore I may have had genetically, you know genetically prone to enjoy music. However music was all around my house. I spoke English because English was around my house. I didn't speak Swahili. Maybe if my parents had spoken Swahili in the house, I'd be able to be a highly creative Swahili poet. But that wasn't the language I grew up in. Oh, incidentally, English wasn't my first language.

R. Oh, right!

I. But, to me that, creativity is to create but it is inevitably in a language that we are taught and its almost by definition, because if you are creative in a language that you don't know. But, to me that, creativity is to create but it is inevitably in a language that we are taught and its almost by definition, because if you are creative in a language that you don't know or you create something that the audience doesn't understand or it is not within the boundaries of the language that they understand, then it is deemed to be beyond their ability to comprehend and forget the word creativity; it is downright appalling sometimes and that's, you in hindsight, I guess that's what all of the famous composers had said about their works once upon a time years later we look back and say "wow, how amazing and creative", but their peers of the day said it was rebellion in some: Shostakovich and…

R. …Stravinsky…

I. …Stravinsky, that's right. So in that sense, you know, they weren't being creative in their day at all. People saying, in their day people said your… were highly offended by what they'd created. And maybe there were some people in their day that said "well maybe it is so creative that its beyond our ability to comprehend, that its offensive"; in hindsight we call it highly creative. But they were working within a language that today we accept; they pushed the boundaries more than anyone else in their time. We call that creative.

R. So your definition takes in not only the, say the artwork that's been created or has been created, but it takes in the audience if you like, as well?

I. Absolutely. If you agree that creativity is subjective. If you agree that two people can look at a two works of art, or one work of art and they may have different opinions, one may call it highly creative and the other may call it not so creative. And we also have to remember that unfortunately we live in a world of people who believe they have better judgment than others, and (…) institutions and any person who, for some reason, they have a monopoly over what is good taste and not, and these people generally make their judgment on the basis of "well, we have learnt the language, we understand the language better than those around us, therefore we are the best judges of people who try and express themselves in that language." So a music critic, for instance, immerses themselves in concert after concert and one would hope that they are learned about the language of music to express itself and therefore they can judge a work against a myriad of works they have heard before.

R. So that comes with experience, is what you're suggesting?

I. It comes with learning the language, with experience of the language, but it still very much constrained by that Western language that they've been taught.

R. Their cultural background?

I. Absolutely.

R. Language, whatever?

I. Their culture, education and what they've absorbed themselves in. So that if I played a piece of hard core hip-hop to Fred Blanks (a classical music critic) he would have trouble identifying a creative piece of hip-hop against a non-creative piece of hip-hop because its not a language which he understands. Yet, obviously, two different pieces of hip-hop by a person of the culture can say "oh, that's, I've heard that kind of crap before" or "what a fantastic use of the hip-hop media to create some wonderful new stuff." So it is very much depending on the eyes that… ears that are listening to the work whether it is creative or not, and that's why I guess I don't buy into very quickly the idea of… that's creative or that's a creative person and that's not.

I also unfortunately think it comes a bit down to upbringing. And I have no doubt that my ability to express things musically is a lot to do with my parents' encouragement of the exploration of music – and the taking me to concerts, and the encouraging me to hit that piano and play my own pieces. And when I came with my first composition, instead of saying "yes dear, that's lovely. Go away", actually encouraging me to do more and I fear that there's kids out there would have a lovely time creating if they were encouraged to do so.

R. Yes. But you think they are not encouraged to do so?

I. No, unfortunately that is often the case in all sorts of things; in art, in language, in sport, in any endeavour. I fear a lot of people are held back from their ability to achieve because they are just not encouraged and fostered to do that. Those of us who have been lucky enough to have found something that we liked doing and encouraged to do it, eventually get to the point where, you know, we are in a position to create in that language. It is also a lot to do with… its tied up with ego and the whole "watch me, watch me!" culture. I'd love to do a psychological analysis of composers or of any artists for that matter but I suspect a great proportion of their need to create, and for that creation to be viewed by other people and adored by other people and be labelled wonderfully creative by other people, is through all sorts of needs, of normal needs of humans to be loved and adored and valued.

R. So personality and ego has a bit to do with it you think?

I. I agree with you absolutely because their ego has a lot to do with the very… the mere fact that someone will pursue a creative outlet. There are artists that are superbly creative who we never see and who are potentially content creating for themselves. My sister is one. She is an incredible artist who studied art and was like me in music. I was fostered in my music and my parents very much encouraged her art. She is an extraordinary artist. But she has absolutely no desire, because she doesn't feel the need to exhibit, to create and to promote and… she is really happy doing her art. And I might be just being a proud brother, but I can tell you that the things she creates are extraordinary and on par with anything that's walked into a gallery. And the occasions where someone from the outside world does get to see them, they pretty much agree. But she has an interesting character that doesn't desire that limelight.

R. She doesn't need to share it with the world?

I. Yea. Yea, that's right. But, that's not to say that what she does she isn't being creative, but I guess what that… to show it. I guess what I… side tracked a bit, what I was saying a lot of people who are, you know, in the varying arts are doing it there because they enjoy that limelight and want to show the world their wonderful creativity.

R. OK, so they are sort of "front" people, "out there" sort of people you think?

I. Front people, how do you mean?

R. Well I mean sort of, you know, out in the… wanting to get out and share their…

I. Yea; they're show people. Much like a rock star or a movie star. You know, they want to get to the front of their chosen art. Music, ballet, painting whatever it happened to be. And that is something that I recognise as a failing of the conservatorium that I went to. An institution that no one ever sat us down and said, "by the way, 90% of you are not going to be Paganinis!" And I think there's a lot of very sad musicians who feel they failed… as failures in their life because they didn't make the A grade. And they were working so hard to be that creative person and are still superbly creative or still superb artists even if they didn't quite make the grade.

R. To earn a living, you mean, by it? Is that what you mean by making the grade?

I. Earning a living by it, but they were brought up in an institution that sort of valued greatness, you know, each person was clawing to get themself to the top, to be that Nigel Kennedy of the world. And I think many of them were doing it because of, you know, desire to perform, to be seen and, you know. And unfortunately some of them were doing it because of the parents desires for them to be performers and to be seen and to… I'm not quite sure how it ties up to creativity other than to say that it pushes one to be that creative soul; creative genius and "look at me" and I think without… without that need to be seen, sometime people would be content with not being superbly creative, just creating for themselves and for their own pleasure.

R. OK, good, some interesting ideas there. Particularly, I think some one else had spoken to me about the idea of creative people to be heard and to be seen, have to be very strong and have to really believe in what they're doing. That's almost a quality of…

I. Yea, it takes a great deal of support from people around you. Having said that, it is also sometimes the complete opposite…

R. That's true! Like Shostakovich

I. Yea, completely unloved and without any support.

R. Yea

I. …push, push, push and still to say as if "love me, love me, this is what I can do!" Really, you know, do whatever they can to be noticed because of endless feelings of inadequacies…

R. Or other people that just sort of do it in their spare time, but are noticed like Charles Ives.

I. Yes, absolutely.

R. What was he? An insurance salesman or something…

I. Yes was found with umbrella's in his apartment when he died. He had an apartment full of umbrellas; odd collection…

R. Ah, right! Ah, I didn't know about that.

I. A highly unusual man…

R. Mmmm. That's probably part of it to do you think? That artists value what they have to say. They're sometimes a bit different. That is a stereotype isn't it?

I. Because artists value what they have to say.

R. Yes. And sometimes that makes them a bit outside the norm.

I. Yes, I think there has to be a certain degree of arrogance in this because it is not a very pleasant human trait to want to be seen and heard more than the person next to you.

R. But then it's a social need isn't it? I mean society needs artists too, I think.

I. I agree, I agree. Its a little bit, you know, communal back scratching, isn't it?

R. Mm

I. Society needs someone, or needs a group of people to create this work for them to be able to enjoy and admire, but it still, it wraps up in that whole Hollywoody personality stuff.

R. Yea, it does.

I. And that's where it starts to get really difficult and to me unpleasant to say "Well that person is a really creative person, but that one is not." It is such an arbitrary judgment which… you know, I have a pretty strong belief that everyone is creative…

R. Yes in some way.

I. … and when we make the decision who is more creative than someone else, I don't think that it is a natural, necessarily innate ability. I think it's a person who has been fostered for a number of different… in a number of different ways whether its parents being supportive or parents being neglectful. Somehow there are a bunch of people out there who find creating in a language, music, art, English, ballet etc, they find the need to create.

R. Well now, in that question also, can I set you on a different direction a little bit by asking, because the main theme of my thesis is to do with commercial music and you know, really little to do with classical music, so I wonder if you would have an opinion or a view about the importance of creativity in terms of having a successful career in music.

I. And when you say "commercial music" what is your definition of commercial music?

R. Well, popular music really.

I. So music we hear on the radio, on…

R. Yes. Yes.

I. …on Triple J. The three minute songs we are talking about.

R. Yes, that's right.

I. OK, cut to the chase. [laughs]. It's the three minute packaged, sort of…

R. Yes, it's the general popular music industry.

I. Right. Well you know what? That's a very interesting one because in years gone by, because its almost completely behind us now, but the skills of true music making was once upon a time very important for popular music. And the Gershwins and the Cole Porters of the world were writing popular music and they were still highly trained individuals who studied the language and executed beautiful creativity within that language.

R. As was Mozart.

I. Absolutely! Absolutely, creative and popular in its time! Quite right. We are in different times today. And a great deal of the disposable music that exists is there not because of the skill of the individual in operating in the language, but the skill of the individual to mess around with technology. And that started happening when music became more accessible and computers came around and synthesizers came around and suddenly it gave power to a much wider audience to create music. These guys and girls started creating music without the skills and without the language understanding of those that had gone before them.

But suddenly it didn't matter and they were making mistakes musically, so what mistakes, same mistakes, in terms of, if you speak in a language, if you're speaking in English, and I guess rap is a really good example; if you ask your average English lecturer to analyse your average rap, and there's grammatical mistakes all over the place and there's, you know, it would be a horrendous, it would be judged very harshly from a pure English terms. However, with all these mistakes, it is judged as wonderfully creative to the audience that is listening to it. And with music and the technology of music we have these tools that allow us to make mistakes and when we make these mistakes we go "Oh, wow, that sounds great, lets record that 30 times to repeat it. And that was the creation of drum machines and synthesisers and computer sequencers that allowed people, that otherwise would not have had these skills, to have them.

And the same thing happened in… it happened before, before music it happened in the graphic industry, because the computers worked very quickly with graphic art and we suddenly saw a whole lot of crap graphic art on billboards and on magazines and its become the norm now; its no longer considered crap, its sort of been… now its called cutting edge, but the truth is the people who operate really have no respect for what the rules were and, you know, good luck to them, they've created a new sort of art.

There are some parallels in the olden days, in that when the piano was invented, the pianoforte, before it we only had the harpsichord and it had a very consistent tone. It was not loud, not soft; it was just the tone it was. So then we had an instrument that could play very loudly and very softly and with it, people got very excited and created new music, but they still did it within the language which they'd learnt.

Today, when people are creating things left, right and centre with new toys and new tools, without any real understanding other than to hit random buttons and you should see how the composers of today operate. It literally has a randomness about it. It is literally like a contemporary painter throwing paint at a canvas, going, "I wonder what that will look like?" And stand back and go "wow, that is great". And that is really how a contemporary composer for that pop music goes, because the melodies are absolute recycled. There are, you know… very few strong melodies and harmonies and the rhythm tracks that are created are pretty much, you know, collages of previous works and bits and pieces that technology has helped with particular artists create. And so with that advent it so made it much easier for a lot of people to do that. It is happening in the film industry too; handy cams and desktop editing systems. We're getting a myriad of short films and low budget features made by people who don't really have the understanding of the language but sometimes they fall upon a style or a… a style and…

R. It works…

I. …stand back and go "wow, isn't that amazing!" And, I suspect they all stand forth with their chests puffed out and say "yes, isn't it great, aren't I terrific" and in truth, inside they go "wow, how did I get away with that?" I haven't learnt a thing about this language and I have suddenly created something in it. But that's the way it's gone in the 20th century, I think.

R. OK, so creativity is actually, perhaps a key ingredient or creativity is sometimes accidental? Or?

I. Yes, its no longer… To be creative in today's pop world you don't have to have the training and understanding of the language the way you used to. You need a great promoter. It's good if you have large breasts and blond hair. There are a whole lot of different things that deem someone successful or not. And the so-called creativity in the music is less, incidentally less important than it used to be.

R. Is there any group or performer in the pop idiom that you would look at and say "yes that person is admirable or has done something good, or…

I. The last truly, for my money, truly creative pop artist was *Prince*. There was a person who absolutely understood the language and worked amazingly within it and pushed it around the edges and created some beautiful creative material. I'm trying to think since him… Well *Quincy Jones* is not a composer

per se, he's a producer but (…)... I can't with hand on heart say that there's a quality pop song out that's going to stand the test of time.

R. Or group, or…

I. Or group, no. Its just too McDonalds these days. Too disposable and it doesn't need to have quality, musically speaking. It needs to be well packaged and commercial and I use McDonalds as an example quite often when I talk about these sorts of things. Music that people eat it,

R. MacMusic, hey?

I. Absolutely. Millions of people eat McDonalds and love Sebel furniture. If I showed you some Italian furniture and gave you some filet mignon from a good French restaurant, it's nothing to compare.

R. No?

I. However the people are eating this McDonalds and sitting on Sebel furniture they wouldn't… well it isn't that they wouldn't know one from the other. They don't care. It's disposable, its here today, gone tomorrow. It's instant gratification.

R. A child of mine describes it, she says "There is no love in it, Mum".

I. No, that's right, it is just commercial.

R. Right, now, you've answered all the questions in one really. Not all of them, but… you've been through quite a few. I've been kind of looking down the list here. I've… The second question is "How do you define outcomes and conditions for developing creativity in music?" so you've talked about what you see as creative outcomes and you've talked about conditions under which work is produced, so we won't worry about that one, will we?

I. Sure.

R. Q3. Now number three is "Are there creative and non creative aspects to being a musician? And if they are, can or should they be treated differently in training and assessing students aspiring to a career?"

I. Absolutely. That depends on the degree to how successful you want to be really and how much you want music to be your career. And bring an income. And if that's the case, the music is – and then the ability to create and express yourself musically – is one part of it but the ability to market yourself and run a business is another part entirely. And there are in every field of art a great many individuals who have the right talent and the right ability to create, but just none of the business nous to take it to that next step and make it… make them an income.

R. So you have to have both.

I. Either you have to have both, or you have to be clever enough to buy the second.

R. Which is having it really, isn't it. Knowing who to go to.

I. That's right. Or lucking upon a manager or lucking upon a brother who's done law. Or, that's right, lucking upon that part of it; you need both at some point, otherwise you'll… it just won't work. Whether you acquire it or purchase it or learn it yourself, you need to have the two sides of this music business, unfortunately – the creation of music and the ability to run a business. And the balance of it is swaying much more towards the ability to promote and market yourself, is something less important today that the quality of the music.

R. So they would be treated differently in training then I imagine?

I. Maybe yes. They should be two highly separate things, because in truth, to make a fast buck or to make a living of some sort, the ability to write music is sometimes less important. Because you know, if you don't have that skill, that skill can also be purchased – those writers and producers creating the music for you. You know, whether these kinds, whether there is a longevity in that is a separate question and whether will be found out to be the fraud is a separate issue. But really, if someone is buying the music, someone is prepared to pay for that music, who is to say that that dollar is worth any less than that dollar that is paid for music that was created by someone who studied you know, for 20 years.

R. Who wrote it themselves?

I. That's right. Yes, well either who wrote it themselves, but someone who's studied music for a year and lucked upon a god-awful piece of pop music which sold amazingly. The dollars that that earned has the same value as the dollars that are earned for a piece of music that was sweated over for 20 years.

R. OK, good.

I. It's a shame to judge music on its ability to earn an income, but that's the pop world.

R. So it's a bit mixed up there, but it is different.

I. Yes

R. OK, that's that one. And I was going to ask you "how is creativity important in some particular areas of endeavour in music and that's in composing, in improvising, in performing, in musical directions or in studio production. Are there any one of those you'd like to pick out and just tell me how creativity is important in that area?

I. Would you prefer I pick one, or just give a general comment on all of them?

R. Oh, look, I'd be very happy if you give me a general comment on all of them!

I. I think it comes back to this explosion of language. If you are putting yourself as a music producer or an arranger or as a composer or as a musician, your ability to be creative is the same as your ability to have understood the language and to express yourself within it. And the better you have understood the language and the better you are able to express yourself, is the more chance that you'll be labelled creative and your output will be labelled creative.

It's very easy to walk into a studio and hear a very uncreative band because, you know, ...kind of crap before, and its highly uncreative and you'll walk into another studio and there'll be this amazing music that you just think "wow, that's just fantastic, how absolutely highly creative". Now one would hope that the one that's highly creative is as the result of extraordinary training and understanding of the language and careful use of that language to create, whether that would be in the production, the engineering, the composing, the arranging, all of those things. If they all have well trained, highly creative people, we hope that the output will be great. In contemporary music, it is not always required. Sometimes extraordinary things come together with the aid of technology, ...write music ...collage....

R. All right. Now the next question is something that you have alluded to earlier also, so it may not take very long and that is "What are the best features of your own musical training in relation to developing creativity?"

I. Good question. Well I was lucky in a number of ways – one that I was absorbed in music from a young age. There were pianos all around the house and my father played piano, so I think my creativity stems a great deal from my encouragement to actually just try it and the encouragement to believe that I can do it. And that happened fortunately for me in state run music camps that I went to as a kid. And there were some terrific lecturers who didn't quash anyone, from the most inept to the most superb. They encouraged and supported every kid in this music camp. And I went there two or three times a year for a few years. And it is that encouragement that allows you take risks and to do things that otherwise you would not do and to believe that what you are doing is OK.

Now, as a result, when I sit in front of my computer and my keyboard, I believe I can compose music. And I believe that what I put down and what I express has value and is good. And in that belief over the years, I guess I have learnt to be self critical and I have absorbed myself in the language enough to go "that's not very creative" when, you know, I stumble upon a melody, but I hope I have the ears[?] to say "Oh, that was creative; that was a good output." And, you know, in many ways what I have described is exactly what these less experienced people are doing in the pop world. I expand that; I play around. The difference being that these guys play around with other people's music and other people's ideas. I play around with other people's notes. It's not a huge difference. The snob in us would say that you are much more creative if you go right to the source and play around with notes and put notes in an order. But who's to say that taking drum loops from other people and taking little vocal grabs and putting… writing music as a collage of other little bits and pieces is any less valuable? I think it is (…) of a way to say it.

R. Well in some senses earlier composers have done that with their own work, haven't they? Bach in particular.

I. A little bit from here and a little bit from there.

R. Using bits and pieces over and over again.

I. Yep, that's right… I don't know if you have noticed that in front of a program called… not "recycled" but… it will come to me before the end of the… an incredible program that its almost like a contemporary version of the Lowry organ. Remember those one finger, you hold down a note and then [sings arpeggio] it plays arpeggios and an rhythm thing, change to another note… This thing is a contemporary version of that in a matter of moments it can create somewhat randomly an incredible pop rhythm, pop beat. If you play around enough with it in your bedroom, perhaps on the computer and you'll come up with something, and if you're lucky, it will be unique and then be deemed creative.

R. Actually that is another area too, that is artificial intelligence, isn't it, but I'm not getting into that.

I. OK!

R. I might sort of allude to it but I don't think I'll get into it.

I. Getting back the question. I think, creative has a lot to do with fostering someone to believe that they can do it and they just do it. I mean it is so sad to see little kids – you know I take the occasional music camp now myself – it is so sad to see kids that you can tell would like to express themselves musically but they just don't believe in their ability to do so. Its almost bad [?] to believe they have the right to do it. And it is just so sad. You've got to encourage them, you've got to say, "you can't make mistakes; just make it up; do whatever you want; there is no right or wrong here" – and they all fear that judgment that unfortunately often comes when someone comes down from upon high and says "that's not creative, I know what is creative and that's not creative." I mean it is just appalling.

R. Or, "that's not right?"

I. "That's not right." And I left the Conservatorium. I was studying Bachelor of Music and studying composition and I survived 6 months and I realised I just couldn't stay because I realised what was happening is I was writing music and I was being told yes or no, that's good, that's bad. And I just did not understand under what basis of judgment these people were saying good or bad. It was such an arbitrary this person's taste over that person's taste. And so I realised it was of little value to me and quickly left and just started working in commercial music.

R. So that tends to suggest to me that standards wouldn't be your way of going about helping people?

I. Standards of helping to create creativity?

R. That's right.

I. Look I don't think standards are a problem. I guess it is the socialist in me that doesn't like saying to anyone "You are creative because you have done X, Y and Z, but you are not creative." As soon as you do anything that – but again it is snobbism – I was about to say it is probably fairer to – I was about to say that if you have enough education behind you and enough training that should equal, you know, eventually enough fostering the individual. That should equal to some creative output. But we are hearing, you know, contemporary pop songs that are incredibly creative by people who have just got a computer for their first time and are now creating amazing things.

So, it's not the majority, and I think a lot of what we are hearing on the radio today is not creative – absolutely not creative. What might be creative is the way the thing is marketed. You know, Internet saturation, giving things away for free as an mpeg, as an mp3 and suddenly you've got a hit on your hands. All the whole mobile phone thing taking off right now, you know this – actually this would be a great study for you, is the ring tone, the frog ring tone, have you heard that?

R. No!

I. It won't take you long to get to the bottom of it. There was a chap who had this very funny knack of being able to… he created the character of a frog that, with his voice [demonstrates] and pretends he is a motorbike driving down the street. That motorbike sound effect became a ring tone. That ring tone started

spreading around the world. Ring tone sites put it on. Someone, I think the same guy, put it to the music of [sings] which is the them from a movie called "LA cop" I think. They took his weird [demonstrates] vocalisation, put it over the top of a remix of this song, made it a ringtone; the thing made squillions of dollars. Now the chap, you know, good luck to him, but I wouldn't call it creativity. More incredible marketing. He's made a squillion from a ringtone, and its not his music and its just his voice going [demonstrates] sounding like a motorbike. It won't take you along time on the net to find it, in fact if you go to any ringtone Web site chances are it will be one of the top 10 ringtone downloads.

R. OK!

I. And it's an incredible mishmash of things. And the person who's making a lot of money out of it is the film company who owns the rights to the song otherwise…

R. Oh yes?

I. … the original composer who, I can't remember his name, it will come to me… no, it's a really odd name, but it is just an incredible story and people are trying to replicate it all the time now but they can't do it. It is just one of those chance freaky things that you've created something at the right time when ringtones are taking off.

R. Well, so that's sort of, coincidental really?

I. Yes he's lucked upon it[?] Yea. But you know, unfortunately there is a whole lot of kinds of coincidental successes even of quality… I mean there's a whole lot of quality music that has passed over people's ears over the years that hasn't hung around. Then again I am making a value judgment that its only quality that hangs around.

R. That's true, yes. Sometime it is only quality that doesn't hang around.

I. Yes, that's right. So a lot of these judgments of creativity come down to this judgment of someone else's work; when it becomes judgmental, it becomes difficult to quantify and to say "yes, you're more creative than the other." But the snobs in us all would like to say that to be truly creative you need to understand the language and then learn to execute unique stuff within that and really absorb yourself. And were genes take place in that I have no idea.

R. No, well its hard to tell, isn't it, really, because if you grow up in a musical family it is very likely that you'll get a very good musical education isn't it?

I. Absolutely. When I take my children to concerts, and I have been taking them to concerts since they were very young, and surprise, surprise, my children play music.

R. Yea, well I was just going to say that before when you were speaking about your early experiences of music in your home and I imaging it is very much the same for your children.

I. Absolutely. I am looking at my lounge room now and I can see a fife[?] trumpet over there, there is a tuba over there, there's two mandolins there, there is a trombone that Oscar plays there, there's a xylophone, piano obviously, Sophie's violin, African instruments; the room is full of them. As a result they'll have a great appreciation of music and if I foster their encouragement to believe in their ability to create, I think they will create.

R. Yes. How old are they by the way?

I. 9, 8 and one and half.

(A bit of family discussions ensues.)

I. See I've got a terrible thing, my sister was so called not musical at all, apparently. And didn't enjoy trying to play and gave up really quickly. But she's a great artist. I have to kick myself to make sure I don't assume that my eldest boy and younger girl will follow the same mould. At the moment he seems to be displaying great abilities. The other day we were at a concert and we hear *Pachelbel's Canon* for the first time, he'd picked out how beautiful it was and he was playing it that afternoon.

R. Aw, really?

I. Yea. She… now my daughter wasn't. Now I don't know whether, because he has shown himself to be so good, whether she is, also being a woman, you women are too nice and let the bulk of the (…)

R. Yes?

I. …you know, go ahead. And often women allow them to stand by and do that. And I guess that is why we love women so much.

R. Different natures I think.

I. Completely different natures. Maybe she is not pushing herself forward to display that because she is just being quiet and allowing her big brother to do what he does. And it would be horrible if I thought she wasn't doing it because of that. I've really to go encourage her to give it a go.

R. Q . Now I asked you what things in your musical training were really good, but now I want to ask you… but I think you have already answered this too. What things would you like to have improved?

I. In musical training? That's a tough one. I mean, obviously each institution has its good and bad points. I can only, obviously speaking personally, the things that shone for me were teacher, lecturers simply fostered one to try to give it a shot and never to discourage and to… My kids are very lucky; they go to a school at the moment that is just like that and I went to a violin concert, a string concert a couple of weeks ago and they had these very experienced kids, and those that started learning the violin two weeks prior to the concert and were playing their open strings [sings open 5ths] and it was just beautiful; these kids thought they were the ants pants.

R. That's right. Very moving!

I. It is just beautiful to see. And these kids who have been put up on a stage to play their open strings, I think will turn out to be terrifically creative contributors, because they have been encouraged. It's almost been encouraged that there is no judgment, just let it lose, just do, do whatever you want. To study; but certainly to have the ability in yourself to create something. And I think it is fostering that, that non judgmental belief in your ability to do, which for me meant that I moved forward. When I stagnated[?] was when people judged my work against others, comparing this with that and making all sorts of judgments upon it. It was completely stagnating for me, from a training point of view. Absorbing myself in a language that I was wishing to express myself in – music – and then being allowed to have the space to do it.

R. Q . Good. So the next question is about what advice you'd give educators and teachers in assessing and teaching creative aspects of music. Now I think you have already done that quite a bit too, but would you like to have a go at that one? What would you tell them to do?

I. The question again if you would?

R. What advice would you give to educators about teaching and assessing the creative aspects of music?

I. It is almost like I said. Don't assess it. Don't judge it. Allow it. Let it lose, let it free and don't make the judgment call to early. Really just foster, encourage everyone to create.

For me the biggest thing for the educator to do is to make sure people have a great understanding of what's gone before them. And really absorbing themselves in the language. That's something that I look back upon occasionally and they could have done better, is an exploration of what music makes you feel. I'll tell you why I say that. Because when a violinist gets up on stage, or a composer writes music for a film or anything, or a painter paints. I don't recall in my education listening to a Dvorák symphony and being asked to express bar 73 in words or to paint the second movement.

Essentially this language is there to express things that humans understand. Now I always use an example of, there's no point in reading a bedtime story to a kid in a language they don't understand. You need to work within that language. I use that example as a defence of why I often write music that is derivative. You know, when I write a very sad piece of music, they'll say, you know, 'That's sad, that's a know sad style, can't you do something unique and new?" and I say: "Well I can, but at a certain point it is not going to be sad any more and then I am not telling the story I need to tell musically." So, you've pushed me so beyond creativity that its no longer understood by my audience. And that's what I call true genius… is when, within the language people are creating truly new stuff, new but yet understandable.

And that's where, as you said, the Stravinsky's of the world created stuff that was just over that line. And created amazingly new stuff but you know what, it was just beyond the understanding of the audience. Therefore to me in some ways it failed, because it didn't actually speak to the audience.

R. Now you've spoken of music as language all the way along and so in a sense what you are saying is that the audience has to get the meaning.

I. Absolutely!

R. Not in words, but they have to get the meaning and they can only do that too if they understand the language.

I. True and…?

R. And if you don't take them too far beyond it?

I. That's right. And that's why a lot of the pop music today is so successful, that it's like the McDonalds. It's easily digested. It's very sugary. It doesn't require any effort from its audience. A Dvorák symphony requires a bit of input; it requires a bit of understanding of the language, it requires a bit of knowledge. That is if you're going to really understand it. You know, you could enjoy it on a peripheral level. But to really understand what it is that the composer was saying, you need to understand it and also let's not forget that what is sad and evocative and moving and tender for one person may be completely the opposite for another. So a piece of music from China to me might mean one thing, but to a peasant form a simple wheat field of China may mean something else entirely. So one's own, the audience's own experience contributes a great deal to whether something is of worth or creative to another.

R. Well that's good. I have a sort of a model that takes in the creator, the thing that is created and the receiver – the audience. So what you are saying to me is terribly helpful without me prompting you at all…

I. Yes, because, absolutely, the way it's received, through who's eyes and ears it's received is that judgment, that final judgment. I use that example when I show kids how I write music for film. And I say now here I'm going to write some sad music. And I say well, in fact what I said before, you know, I can't write music that the audience will not deem to be sad because I've to speak the language they understand. And that's why I guess, I'm a little impatient with so called creative geniuses who are creating so beyond the language that people don't understand. I find that incredibly self indulgent. And it's like standing in a field of French speakers and speaking German and expecting them to appreciate what you are saying. It ain't gonna happen.

R. That's a good example, actually. I will probably borrow that from you I think.

I. It is tremendously self indulgent and it's not the communicator I think an artist should be. And if they don't want to communicate, then they shouldn't be showing it..

R. So its communication…

I. Yep

R. Good

Conversation 6: Performer / University Academic

The informant is a university academic, music management expert and drummer. The informant was provided with the list of questions and eight creativity related competency standards from the Music Industry Training Package 01.

R. Q1. What is creativity and in music and what is its importance?

I. I guess my answer to that is that there are multiple types of creativity. So the way I approach the content of creativity is to break it down into various definitions for different types.

So, on the one hand you have creativity with a small c which would involve day to day creativity; so you might learn a new recipe for a dish you are cooking and you add a new ingredient and that is creative, or you might have an office at a university and you put paintings all over the wall that you've created and that's creative. That's the definition with a small c or if someone is particularly articulate and witty in a conversation and they can entertain a class or entertain an audience just through being funny, then that's creativity with a small c.

Creativity with a capital C differs from that, so creativity with a capital C would be Csikszentmihalyi's definition of creativity from the book that is on my desk somewhere. To bring into existence something genuinely new that is valued enough to be added to the culture. So that is a huge big definition of creativity; so it is something major that is deemed to be creative and in his book named "Creativity Flow and the Psychology of Invention" he actually talked about creativity broadly using that definition and he talks about it in many different fields and, so I guess, linking back to the question, "What is creativity and what is its importance?" Well creativity in music going by that definition involves creating something general users value enough to be added to the culture. So, Csikszentmihalyi's definition with a capital C would involve the argument that critics and peers and industry cultural intermediaries within the industry need to accept it so that it is valued enough to be added to the culture, otherwise it is not creative with a capital C.

That's quite a, perhaps, more an essentialistic[?] way of looking at creativity, but that's how I see the music industry operating and creativity in the music industry. Now, yea, so there are the two main types I'd identify. Sort of creativity with a small c and creativity with a capital C, but in terms of the music industry and music industry studies specifically, which is what I research, I think you need creativity in music as a field. So the artist needs to create something that, usually after years and years of effort and years of work, something that is valued enough to be added to the culture, but to do that there needs to be as much creativity in the management of the artist as there in the artists actual creative artistic product. So that's what I'm interested in.

I'm interested in music management as a creative process. Now in my definition that is not necessarily just suggesting that creative managers comment on the artist's music and the artist's look and the artist's brand image and the artist's actual music – that the creativity in management also involves effective and viable strategies for career development and the art of management is, involves building networks, and that's a creative thing to do, so you have to create the networks and you have to link through someone else's networks to get more networks and form strategic alliances with record producers who in turn affect the creative product. And so the managerial role is creative as well and in terms of industry studies and what people who aspire to a career in music need to know, they need to know as much about music management as they do about the development of their artistic talent.

R. So you think artists need to know…

I. Yep. Artists and also people who are aspiring to be artist managers, but…

R. So they have develop some skills, framing that creativity and the manager's job is in a sense to bring it to the community and to find strategic ways of bringing the artist to the community…

I. Certainly.

R. …or to the audience or…

I. Yep, yep.

R. Is this a matter of meaning too? I mean what you're saying to me about creativity implies a sort of semiotic basis. There's a basis of meaning there because…

I. Yep.

R. …you're saying it has to be understood in some kind of terms. There's a cultural framework…

I. Certainly, yes.

R. I mean it is hard to talk about understanding music.

I. But to lean[?] into semiotics, in terms of the study of music and the music industry itself, the word creativity tends to signify the artistic creativity of an artist who works in isolation, who works in isolation and who potentially going to be solely responsible for their own creative work. And management is not creative. So there's a tendency for the word creative to mean music and not creative means industry. You have the commerce via creativity dichotomy. And what I am trying to do in my thesis is actually break that down a bit. And suggest that dichotomy between commerce being not creative and music management being not creative and that being applied to something which is creative, which is music is a problematic way to approach a career in music and teaching people how to produce music and how to have a career is music, because, and this is also stemming back to Csikszentmihalyi's definition of creativity which involved the argument that creativity stems from a system.

Yea. So I'm certainly tending to argue in that direction as well. And so the word creativity to me signifies multiple meanings and it's polysemantic in its actual meaning, whereas within Western culture creativity tends to signify, and it's a generalisation, but it just in my opinion tends to signify solely the work of the artist and management is behind the scenes and the musician, the other musician and the other players who actually contribute to the production of a recording or a show tend to be sort of in other ways, other than them being creative…

R. its sort of like marketers and accountants.

I. Yea. And that's not a creative field. Well I guess for the sake of simplicity and… they're just creative in different ways. I mean, marketing is very creative and accounting is creative. I mean it can sometimes be problematic if is creative as you can imagine, people creatively deleting financial record or something.

In terms of deal structures within the industry, everything is negotiable. So there's no one set contract that everyone adheres to. It depends on the context the artist's in. It depends on how the entities they are involved with can contribute, and what they can bring to the contract in the agreement that is a balance between two people, two entities and therefore contracts in the industry are creative too.

And management in the development of a career in terms of an artistic career for a musical career need to be though of as something that has to be creative. Because artists tend not to have institutional protection around them, so they tend to be out and about working in a very, often a very vague field that doesn't have clear definitions, clear boundaries. And they – if they are creative with a capital C, they're doing something that is genuinely new that's going to be added to culture, and people react negatively to that, if it is something that is generally new then it's something that's unknown. So it's this tendency to be in a really vulnerable position because they are working in such a creative, in such a new way with an art form, but in order to actually sustain it and make a career out of it, they have to be creative in how they're actually going to survive in a financial sense to build a career.

R. It is terribly risky doing new things?

I. Entirely, yea.

(Break in taping for interruption and lost researcher's remarks)

I. Just referring to your example of the *Cat Empire* versus *Human Nature*, so I (…) would use the dichotomy of organic for Cat Empire versus inorganic, which would be Human Nature in your example.

So it's a question of capital in terms of management and managerial activity, in terms of Human Nature. It is manufactured. It is inorganic because, not that that is a negative term, it's just a way of understanding it perhaps, because the capitalist[?] forms of, to continue with the analogy, it is a form of fertiliser which

can build a career quickly over a shorter period of time. Whereas the other example, the organic, it has grown slowly, slowly, slowly over time. It generates things, a sense of authenticity attached to it perhaps and in terms of a career trajectory of an artist it's more they'd have longevity. So that's one way of looking at it.

But I wouldn't actually apply that dichotomy directly to an explanation of managerial creativity and artistic creativity because it is my understanding of music management that the manager's role is to build and create a context in which the artist can thrive. And they build that context. Now for the Cat Empire I think they may have started as self managed artists, but it is still music management and most artists do start self managed. But in terms of that example the *Cat Empire* have built a context for their own careers and have their management has built the context for their artistic process to thrive. But the same process has happened with *Human Nature*, the management has still built a context in which the artist can thrive. It's just a different way of going about it.

And linking back to Csikszentmihalyi's work, I've taken his ideas and applied them to popular culture and contemporary music. But I'd classify him as an elitist who is more interested in creativity in terms of high art over creativity in popular culture because he doesn't think terribly much of MTV – if that makes any sense.

R. It does.

I. But I still think pop culture is creative in that sense. But I practically[?] have a broader definition of creativity that is real, creativity that's not because that's just a subjective value judgment on the behalf of the receiver of the music

R. In this post modern world which…

I. Yea, see, I've come from more of a postmodern perspective or more of a contemporary post post-modern perspective which would break that down and *Savage Garden's* music was valued enough to be added to the culture. And it was something that was genuinely new so therefore going by our original definition of creativity with a capital C, it is great (…) and those value judgments are just constructs that are constructed through the discourse surrounding a particular piece of music. And they are poly-semantic [?] definitely; they are different for everyone. And someone… They are generalisations and they have some relevance and some meaning, but it is coming back to a semiological meaning of the word creativity and what that signifies. It signifies *Cat Empire* and not *Human Nature*. Really? Does it? Or it signifies authentic creativity and not authentic creativity. And it signifies creativity being the artist's job. And the manager just some somehow helps them build their career, but that is not creative, yea. So, I'm confusing myself as well. Just working through it. Therapeutic! [laughs].

If it is the manager's job to build a career than that's creative as well. I guess you just have to define how you're using the term.

R. Yea, that's right. Well, also, I understand that you are an artist as well. So, as an artist do you have a perspective on creativity?

I: Well, I think that, my spirits[?] of creativity in terms of actually being an artist is that creativity is not something that creates a lightbulb going off in the dark instantly. It's a long, long, long, long process. Its actually learn an artform, learn a field and learn the patterns within that field and then after years of effort, years of effort learning an instrument, playing a lot of shows, dealing with society's perceptions of artistic careers being potentially not viable…

R. …get a real job…

I. …get a real job…, working part…, through all of that, then, if you're lucky you can add something new. So in terms of artistic creativity, I think there's a problematic perception that it's an overnight process, that it is a lightbulb going off in the dark, but my experience is quite the opposite. That it's a really long, long process. That you eventually get to I guess.

R. And… would you like to move onto number two? Which is "How do define the outcome and conditions for developing creativity?" In other words "How to say what it is you want to achieve in the first place and how do you work towards achieving that if in fact that is a process that people go through."

I. Good question. What do you want to achieve. Yea, I don't think the artists I work with and manage and being in arts myself. I'm not sure we actually should think we should sit down and think what we want to achieve in terms of our creative outcome and how we are going to get there, both in terms of career development and artistic development. But we tend not to.

R. As a manager you certainly would.

I. That's right, yea…

R. But as an artist perhaps…

I. What you want to achieve in terms of music, yea… No, you just sort of plough on. You go about it, you know. Go and do it.

R. What motivates you to do it?

I. It comes out, yea. What motivates me to make music?

R. Yea, what, as an artist would motivate you?

I. Here's just a quote taken from a sculptor called Moore, some Moore, anyway a famous sculptor, I don't know the reference but I'll pinch it because I like it. And he said that, he was old and he was say almost 80 and the interviewer said, now that you are nearly 80 you must have some kind of understanding of what the meaning of life is and he replied to that question and said, "Yes, I do actually, the meaning of life is to find something that you can dedicate yourself to entirely, that you can put all of your passion into, and you can really give yourself to, but the most important thing is that it is something that you cannot humanly, possibly be able to achieve." [laughs].

And I read it and I thought, that's a weird definition for the meaning of life, but I would certainly apply it to what drives me and what drives me is the process. It's not the product. And to pinch another idea from Csikszentmihalyi, his notion of flow is a good notion for understanding the process of creativity and what you get out of it. When I'm being creative, I feel like I'm living life more fully than I am in the rest of life.

R: Is that when you're making a cup of coffee?

I Totally. Or working a job that is not to do with music. Or not working in a field that's just going through the motions or something. But the quote from the sculptor is interesting for me because it has to be something that is not possible to achieve, because if you actually achieve it, then the process is gone. What drives you is gone, which is actually the sense of flow, that feeling of being within the creative zone.

R. And from the point of view of music, of course that's completely utterly, utterly… I think any person who is serious about participating in music in any kind of creative way understands that you can never achieve perfection or…

I. That's right.

R. …and even someone practising in what people might consider the less creative areas of music…, I don't know, just performing already composed music or playing the piano, or, you know, or anything… there's always more to be done. And people think sometime they'll get there and they're a bit disappointed that they never do reach that sort of state or perfection.

I. yea.

R. So, creatively, that's the case too…

I. That's right. Yea. Definitely.

R. So you're saying it's the process that drives you rather than the product?

I. Yea. Like if there's not a new beat to play, I won't play the drums or if there isn't a new song to write or learn, then I won't pick up the guitar. It has to be always something new…

R. …fresh…

I. …fresh in that process and that's what drives you. But, I mean, we've just released and album and that's gone out to really good reviews and we sold out a lot of shows and its going well and we're sort of on the tail end of the initial campaign and it's hard to keep going; it's hard to keep pushing the album because it's an old album but 99.9% of the Australian population haven't heard it yet and you have to keep touring it…

R. …it's old to you but you…

I. …it's old, yea, you're not creating something new.

R. Is this it?

I. Yea.

R. And what's this one here?

I. That's a student production.

R. Right. Well, I have to say, I don't know of your group and I'm not terribly well acquainted with this music scene, so, you know…

I. …well, you can take the CD [laughs]

R. No, no, I'll just take note, I won't take the CD with me, but…

I. No you can if you want…

R. Oh, can I?

I. Yea, you should.

R. Oh, OK, lovely. Film[?] production… good. Dion Jones and the… Is Dion Jones a part of the group?

I. Yes, he is, yea. He is the singer/song writer.

R. Yea, OK. And what's your position in the group

I. I play drums.

R. Ah, OK. I grew up with my older brother. So my early life was all with drums. Parts of drums and people in our house making a noise and neighbours complaining, but there was a lot of all kinds of music; not only that; all kinds of music. Oh; thanks Guy.

I. No worries. Check it out.

R. Rightee oh! So you don't think you can sort of say any more about how it happens?

I. How creativity…

R. Have you noticed that things, that some work and some don't work, or there's any, I don't know, any state of mind you have to get to, or is it just serendipitous?

I. I'm not actually a song writer so it would be, the process of actually writing a song, actually where a song comes from fascinates me.

R. Do you ever do it in a group, like, you know, the song writing. Does the song writer ever work with the rest of the band putting something together?

I. All the time, yea. But, I guess going to question 5, can I skip on?

R. All right [laughs]. The best features of your music… Well, that's a repetition of the question there.

I. (…) musical training (…) relationship (…) creativity…

R. Yea.

I. Well I guess, being formally trained in a particular field in contemporary music such as drums and percussion as my first instrument, but I'm also a guitarist. So I guess Western culture looks unfavourably towards creativity in terms of drumming.

R. I've heard all those jokes about percussionist…

I. Mmmm. Yea, definitely, so it's hard for me to answer the question because I'm (…) is drums and if you are looking for answers concerning creativity that's defined in terms of Western culture that is all about songs and song writing…

R. and the other elements like melody and…

I. …certainly, and melody writing, then my own contribution and as a drummer technically doesn't count, in a way. I don't know. Maybe it's not creative. Maybe drums… I mean it's true. You can't copyright a rock beat. It's true. So what in terms of the creative process for a musician and being a drummer, what is the contribution, is that creative, is that not creative? Well it is creative, it's creating something new and it's creating patterns that don't exist before. Although, you'd have to redefine the definition of creativity in Western culture.

R. Well, yes, because the elements of music that are emphasised. It varies according to the culture, doesn't it. For example if you are in Indian culture there'd be an entirely different approach; if you listen to Indian music, you know, you'd say "Oh, that classical music that we have, doesn't have a clue about rhythm, really, its so simple and boring, you know and 1, 2, 3 and 1, 2, 3 4 basically, or the odd 6/8. But you listen to the complexity of the rhythmic work in Indian music and, you know, it makes you bow your head then think, oh, I didn't know any thing about rhythm, I don't know or even, you know, some Western cultures, like Greek music, you know, there are plenty of musics in the Western idiom but they're of the folk variety and they're missed as… well. It's the low brow/high brow thing, isn't it? But in India, it's the classical realm where rhythm actually reigns over melody and over harmony… well, harmony has a bit more importance there too, through the ragas, which are much more complicated than our scales. But, they rhythm is, the drummer is…

I. But the question, as to the drummer in that culture, in terms of creativity would be easy to answer. Because, I mean, its hard, I don't mind that Western culture is like that, that's fine; I mean, it gets a bit monotonous that people with Western culture think drummer jokes are still funny, and they're just boring. Then, but if you say that, "Aw, but you've just got a chip on your shoulder…" But, I say, well not really, I like what I do; I don't care; its boring you know, yea. And people tend to say "Oh but how do you practise drums? How can you practice drums?" It would just be really boring. [laughs] Because its not playing guitar. [laughs].

So what was the point here?

R. The point was you were trying to articulate creativity from the point of view of a drummer.

I. Yes so it doesn't work well in Western culture. Yea so it gets a bit boring – in the culture – people thinking that drummer jokes are funny. But then if you say that's not funny they say, "Oh you've just got a chip on your shoulder." But no – really I like what I do.

R. There are levels of creativity – or degrees I don't mean levels, but degrees of how much of the product is creativity. You know – the relationship between technical ability and creativity that you hinted at when you say: "it takes a long time". So are there creative and non creative aspects of being a musician? Really, what is underneath question 3 is "what are the technical skills?" I say creative and non creative because people tend to understand that better basically. They can see someone playing scales, saying well, that is technical ability and they might even be able to do great staccato and diminuendo and crescendo and all kinds of things, you know. But is that creativity?

So the question there is, are there creative and non creative aspects to being a musician for you and your clients. And if there are, should they be treated differently in training and assessing students aspiring to a career in the music industry? I am interested a bit in how young musicians are being trained to make a million dollars in the music industry.

I. Right, well I guess going back to the two definitions offered earlier which are creativity with a capital C and creativity with small c, someone who has the managing technical ability… there tend to be two kinds of musicians. There are those who are technical and who can play charts and… especially, say, a classical guitarist, is quite a rigid approach to playing music, and… not that that's negative, that should be positive; it's phenomenal. But if you ask them to improvise, or you throw them in with the band and

create something new, write a song, they can't, because it's not how they've been taught. It's not already pre-existing, but then… It's almost an impossible question. It's really horses for courses. It varies so wildly.

R. It's a continuum I suppose… Its almost like at this end there's the technical and that end there's the creative and they sort of cross over all along, it's like the difference between male and female, you know…

I. Yea, in my mind they are more intertwined, you know, going back to the definition of creativity generally being something new that is valued enough to be added to the culture. Well, if that's[?] the case, for a musician to add something genuinely new, they need to learn the field which involves learning the technical ability and learning how to play and learning the elements and learning what various other songs do before they can add something to it.

R. So it's a building process.

I. Yea, so the technical is the foundation and the creative is the variation, the next block in the technical. So technical development in playing may be deemed to be what is actually created.

R. Can you separate them?

I. Separate technical and creative?

R. And should you? Should you assess them differently? Should you give a mark… that's your mark out of 10 for creativity and that's your mark out of 10 for technical ability?

I. That is interesting actually. Well, I mean there's a tendency within our production courses to assess in terms of technical ability, so it doesn't matter what the market's opinion of the actual production is, it just depends on… It is easier to mark the technical than the creative.

R. Do you want to unpack that a bit too, because that is a quite important to me? You said it is easier to mark the technical that the creative… You know, we've all got ideas on that, but I'd like to hear what you have to say about it?

I. In terms of someone who's assessed production works and things, its much, much easier if you have a course that has 30 students all using a computer software program, to produce a record or one song as a recording. It's easier to give them a 25 question multiple choice exam which tests their technical knowledge of the technology than to actually sit down think which song… which record is better than the other records because they're so different. (…). That is actually not what I originally meant. That technical ability in terms of using the music production technology, so perhaps we are talking about instrumentation technical ability…

R. Well actually, it can be either, because I mean when you were talking about production, I think of producing the same way. There are producers who are engineers and there are producers who are really super creative in their helping the interpretation of the work. So they're adding another layer of creativity.

I. They're there to add ideas.

R. Yea, so I imagine for your production students you could have the same kind of scenario…

I. Certainly, yea. And I mean when I took over the course, I don't teach it currently, but when I was teaching it I took it over and the previous convener said that the students have to use 5 pieces of software to create their music. Which is a technical approach, so they're saying, "well you have to demonstrate to us that you can use this technology to create music". But the end result, the actual music, doesn't matter because it's a demonstration of the technical ability. Whereas I came in and said, "hey look, you created music, if there's 5 pieces of software there, you don't have to use them. If they are going to aid your creative process to get to the end you want, then use them, but just because if you go into a studio and there are 20 racks of effects, doesn't mean you have to use 20 racks of effects. That's not the approach I would take to making music".

R. And it's not the more effects you use the better…

I. No, not at all. And in terms of record production, I have a less is more philosophy. And in terms of drumming I have a less is more philosophy; in terms of guitar playing I have as well. So going back to the

question, can you separate them, it's easy to separate marks for technical… it's easier, if you're a classical guitarist. Its easier for the assessor to sit there and note how many mistakes you've made and note how well or technically proficient you are with guitar and how well you play, because it makes it more like an objective process. It's more like mathematics. It's like saying well…

R. … the processes are more predictable.

I. Certainly. Did they get the pattern right? Did they get the knowledge right? Did they get this right? And creativity, that's more of a qualitative… and creativity is more of a subjective value judgment and how do you mark that? My production students might, like… one of them might use a distorted guitar and like make a death-metal record. Another might make a… be a classical guitarist and do an interpretation of a baroque piece, which is incredible, into the computer or onto a record. And then another artist… another student might do something else and then… or say a student is into flamenco? That flamenco guitarist lays down a piece of music that just doesn't make sense in terms of the Western musical system; just clashes like you wouldn't believe, but that's the point. Then is that creative or is that not? Well then I might like the baroque piece more than the flamenco, then the flamenco is not creative? Or whatever, you know. It's a minefield.

R. Actually that makes it hard. The interviews are so creative too, but there's not a strong thread of cross-validation in what people are telling me except in very few points, about creativity; something new, you know, someone who's creativity is one's personal input… that's one way of looking at it. But then that has limitations too. All right, so should we look at another question? We've sort of been around different areas, haven't we? Different sites of composing, improvising, performance, performing. Do you want to say any more about that or would you like to move along? You've actually covered most of your stuff…

I. What I'd broached[?] is creativity in the sense as a result of years of effort. That doesn't stem from a light bulb going off in the dark. That's completely out of context. It's all about context and it's a long term thing, which we have already said anyway.

R. Yep. So did you make notes there, on your… You wouldn't be able to email it to me would you?

I. Of course.

R. I'd love that. (…)

I. Go to questions 6[?] and prime me[?] for that.

R. OK. How have you developed your creative skills or those of your students? What strategies have you found most effective?

I. Well, I teach arts management, so I have a particular opinion about it and the opinion is that you get better at playing shows through playing shows. And you get better at making records through making records. And so therefore by focusing on music management with some Bachelor of Creative Arts students here at Macquarie, we've built a music production company that produces about 70 shows a year. And the creative process of building a company and building a music production entity is a creative process in itself that in terms of the industry, it's benefited our musical creativity, because we are able to fund records. Because we make money through playing shows and therefore we have the money to buy studio time, then that gives us a focus for our creative writing. And then we get in the studio and we can make a record and it means that we are sustainable as an entity, as artists in our career.

R. Can I just clarify for me… So you established a company here at Macquarie University that is a music company.

I. Yea, it's not here at Macquarie, it's a separate entity. It's my other hat; I wear multiple hats, so if that makes sense. I mean it's my other interest, so its something that has developed out of here, corporate [?] productions.

R. So it developed from here and…

I. Through people who met here, yea.

R. Right! OK! And you in a way create an environment for students here too that they can use the facilities of the company is that it?

I. In an informal way, yea. So it's not set up in an official capacity and it's a completely separate entity to the University, so the University doesn't make any (…) or… its funded in any way what so ever. But what we have set up at the University is an entity… well currently it's not a separate entity to our music department, but it's called "DCMS Records". Which the "Department of Contemporary Music Studies Records" which is a project which is set up in an official capacity within the University to help students build and develop their own careers.

R. That's a pretty interesting concept. I haven't come across that in any other institution.

I. It doesn't tend to happen much in Australia, but I've just been on a world conference [?] tour, and I went to New York and met with Catherine Moore [?sp] who is the director of the Music Business Unit at NYU in New York City. And they have a record company within their Music Business Department called "Village Records" which is based in Greenwich Village in the heart of the scene, and they actually sign outside artists to the record company and the students run the record company as a teaching and learning module. It's incredible. But music business studies there really developed (…)

That department has been there for years and years and years, and the music business field of study in America has been around for 30 years or longer. Where as in this department I just got a grant and just got a course accepted for development called "Music Business" which is a new subject that will formalise this. I won't explain it: just read it. So rather than… the Music Business program at NYU focuses on the music that the students learn through working the record company and the artists on the label can be outside artist; tend to be outside artists. Whereas what we are doing and what we will be doing in an official capacity next year involves developing DCMS Record so that it produces a compilation CD each year and a show each year. And these are the tickets so you can see that we've branded it DCMS and Macquarie at the top and it's at the Metro.

So the concept there is that we take two Macquarie bands, one is called *Token View* and they have just supported (…), a big American band. And they have independently released two EPs through a national distributor which is MGM and have done a lot of shows. We've produced a lot of shows with them too with my other production company, and they are going to headline the show.

Then we've got another student band who are less developed in terms of the industry, called *Cuthbert and the Nightwalkers.* And they have a… he's a singer/songwriter who is like Neil Young. But he has a 15 piece backing choir, all female, so it's like Broadway show and they have lights and dancers and this crazy (…). And then we have two bands from Melbourne on the bill. So that's… the content there is that we for a flip to our arrangement with the Melbourne artists. So they come to Sydney and play open for our show and it gives our students and the department access to the Melbourne music scene because, that's how it works. You know, we help them out in Sydney and they help us out in Melbourne.

And so the concept behind that project is to link it to the online and external music business unit that will work next year, so that the students learn music industry studies in an official capacity. Then as an assignment they work with our music production students and form management agreements and strategies for career development and then it all comes together in the production of a compilation CD and a launch of (…) and then we link back to Melbourne. And it is providing pathways for our students into the industry to make records. Whereas Film Productions has done that in the past but the students haven't got any credit for it or…

R. So it's not part of the curriculum.

I. It is not an accredited unit, so they get credit for it because, you know, they're good, but different. It's unofficial.

R. They get the skills

I. They get the skills, yea. Certainly. And the students that have come through the band have gone on to do really wonderful things in terms of their careers.

R. Good. Now it's getting real, hey?

I. It's real. It's creativity. It's real creativity. Here at Macquarie. It's not false… it's not pretend creativity.

R. It's not manufactured.

I. It's not manufactured. It's true; it's organic, yea.

R: I don't think I'll be using those (…); I mean it might talk about it but I don't think it holds a lot for me. It doesn't help me a lot. OK.

I. Yes, they're hard. Anything to do with "authenticity" or "real" or what's real…

R. …or what's true…

I. …steer clear of it [laughs]

R. Too true!

I. Isn't the truth ugly?

R. It's the politicians saying "that's not Australian" or "Australians'll be better off"

I. Oh yea. It doesn't work in an academic (…), yea.

R. Q 7. Oh no. So number 7 is "What aspects of your training for musical creativity would you like to have improved?" So what could have been better for you?

I. Well, I'll link that to my previous answer and the finishing [?] of DCMS Records.

R. You wanted DCMS Records?

I. I did. That's what I needed. So, I actually came through as an undergrad at Macquarie and I did a Bachelor of Creative Arts degree which is a multi-disciplinary arts management degree which had only just started. And I majored in music. Now I came through and had to learn everything myself in terms of the industry. And I learnt… and I don't regret it, but I learnt everything the hard way, in a way. Which I think you need to do anyway, but…

R. It sticks better if you do?

I. Yea. And it was a long slow often quite a painful process to actually learn how it all works and do it and try and release a record. And I am not unique in that because I think the paradox of the music industry is that no one will help you until you can effectively do everything yourself, in a way. So you necessarily have to be independent and say, you know, to say, stuff everyone, I am just going to make a record and release it and then people become interested in it because you're driven.

R. You've shown your grit.

I. Yea, and they can see and they can… that's how any small business starts, really. So what I found lacking in my own upbringing as a music manager and a creative artist was that academia tended to be fascinating, interesting but there were no official links between the actual industry. And there was infrastructure for me to be plugged into, for me to go into the industry. And I guess there was no person who had a position within an institution that was able to set aside time to show me how it works, or to help me do what I really wanted to do, which was make and release a record.

So I was taught how to make a record. I learnt that. But I had to figure out how to actually release it and network and do all of that. And so therefore I found that was lacking. And therefore DCMS Records and the event project that we started last year… I've set it up to basically, to use the cliché, to people coming through to have what I never had. You know, being a real dad, kind of sappy, you don't know how good you've got it. That kind of cliché!

R. You don't know how hard it was?

I. Yea, you don't know how hard it was! (…) That's such a cliché.

R. No, that's good. But I suppose it's an evolution thing, you know. That's how it works.

I. Yea, definitely.

R. Well, that's sweet. And what "What advice would you give to educate…". I think you have already given it, but about teaching the creative aspects of music? People wanting to into the industry – so now I'm talking about just they're getting not the product so much as the process, probably. How do they do it? You know, what things do they need to know before they embark on their creative process?

I. I think music business, music management skills tend to get neglected in… it's a generalisation, I mean, a lot of institutions are teaching it but I guess there is a tendency in Australia that people… the music industry to say, "Oh, you're ding a PhD in music management. Oh, we don't like academia." And academia says "Oh, you can't do a PhD in music management because that's like commercial" or "you are just a capitalist man, how can you be such a capitalist, oh, its so bad." So as an academic teaching music business in a tertiary institution you're just sort of stuck in a little… the industry hates you and academia hates you and you're there thinking, oh… I mean, you feel quite isolated.

And then you go to New York. And until you go to New York and meet someone like Catherine Moore and David Purcell who run Village Records and run Music Business at NYU and they – their getup – is so proficient. And their students come up with these brilliantly creative business plans for artists that basically involve their industry – just further learning how to perpetuate American cultural imperialism within Australia and the rest of the world. Like there's reasons why they're really good at it. They've got it together and they focus on music business. And Australia just sits back and for starters we don't have a collective body that can actually effectively lobby the government for funding – so that doesn't exist.

R. Like the Music Managers Forum?

I. Well the Music Managers Forum is certainly useful for raising awareness and industry training skills and everything like that. But there's this… when I was on my trip I went to London as well and I met up with a guy called Stewart Worthington who runs the training program for the UK MMF, the Music Managers Forum. And what that is, is that it's a for-profit branch of the MMF which funds the MMF. So the workshop that I went to cost £40 which is over $100 Australian dollars and there were about 40 people there on the one night. And I think there 40 on the night before, which is 80 times £40 in two days. There's a lot of money there to be generated for funding music business training and Stewart is interested in setting that up as a franchise around the world. And there is a huge gap in Australia for it. Because the MMF runs and it runs workshops, but they always had the beginners

R. MMF and they cater for beginners. Actually I spoke to the MMF person in the NSW branch. That's the other thing. They've got state branches and he said you know, "come along to this (…) on Tuesday night. We're passionate about live music and everything". And I think I might go along one Tuesday night. But, yes he was very much on giving young people a go, so?

I. Yea, definitely. Now that happens in the UK, MMF operates like that. But the training program as it stands is the equivalent of a Master's degree. So a Master's level or a PhD level.

R. So they run it as a training organization?

I. Yea and they have experts come along and talk about specific things like withholding tax and how it operates for artist and managers who are touring Europe and the UK. Now that's just a whole other level that we never ever get to in Australia. We don't get there. It's always back at this sort of entry level, which is good for the industry but it doesn't… It means that when I talk to people like Keith Welsh from *Rough Cut Music Publishing* and he is also the Managing Director of *Music Network Magazine* and he runs that John Woodrough and is a colleague who's actually forming a partnership for a record label at the moment.

R. So tell me again, that's Keith Welsh? Because sometimes that's helpful you know and he's… what is he?

I. He's a music publisher but he is also the Managing Director of the *Music Network Magazines*, so that is the industry data mag. So they publish all the charts, all the air play (…) So it's really for managers so they can track where their records are getting played, where their records are selling, where they are in the charts – really a good resource.

R. So did you say you're setting up a business with ……..?

I. No, no, that's a whole other project. That's… Keith would be involved but it's not on topic for this point. Which is that he said to me that he is really, really interested in music business education and training and music management training, because he finds that managers just don't know enough, even managers of established artists and it limits him as a song publisher because the artist and the music

manager have to drive that relationship and it's in his interest as a song publisher for music business education to become more established and for people to actually know more, because that limits him (…)

R. Well actually on that point. The Training Package, you haven't seen the training packing, have you?

I. No.

R. I did send the standards didn't I?

I. Yea, I've got them, yea. I haven't had a chance…

R. Well if at any time you'd like to have a look at it, I've only picked out a few that had to do with creativity. And I'm finding, you know, I talking with people in TAFE as well and they're supposed to be implementing the Training Packages you see. And I find them terribly reluctant to speak about them in detail and I think, you know, they are not easy to work with and you know, I might be able to make recommendations about that in this thesis

But you know, that's not them main game, but in those standards there are standards for music managers, so we've gone… so (the Music Managers' Forum) was involved in the development of the *National Music industry Training Package 01*, (with representation) on the steering committee. And that was a Government funded project because this was in the area of vocational education. Of course vocational education's had a big shake up in the last 10 years or so, a lot of top down stuff from the Federal Government about how TAFEs and Registered Training Organisations are going to operate and how they're going to have to be in touch with industry.

And one of the instruments was that every set of industries would have a *Training Package* and that would consist of what they called standards – but really they're outcomes. If you are going to work in this industry as a music manager you've got to have unit z, x, y and 25t etc. And if you've achieved that you get a Certificate IV in Music Management or a Certificate IV in Music Production or performance or composition or tutoring or whatever. And that's vocational education sectors adds up[?] to problems you're describing in lots of areas, especially in emerging areas.

You know, we already have a culture of training for metals and hairdressing and whatever. But music is new to that area of education and particularly commercial music. You know, that sat terribly uncomfortably in academe (…). You know, when I was young through music, you know there was no way that anyone that played a saxophone would get near any kind of academic institution; any higher education. You do it yourself, you know. It is not catered for at all. Just for an example. So these standards, you know (the Music Managers' Forum) is quite interested in these ideas too, because it serves their purpose in training and education.

But how do you see the role? Do you see any continuum in school education, vocational education and higher education here? I mean do you see that you could be working with other institutions. Because I know some other institutions, vocational places have a relationship with the university. And you do a Certificate IV in our and you'll get 18 months credit in Macquarie University towards a Music Business Degree or whatever. So how do see that connection?

I. Well, we did have a connection with XXX Academy. Do you know them? Academy students would do a certain amount of their study there. And they would come here and finish their degree here and get a Macquarie degree as well. In terms of the administration it was quite chaotic. There were problems with it. In terms of just my own ideas and desires, the new second year Music Business course which is an accredited Macquarie unit is being offered as an external and online unit. So it is envisaged that it will be a course that people from other institutions will be able to do as external. So it could work.

R. And they can do it concurrently with whatever they're doing there?

I. They're doing there, yea. And get credit from their home institutions for doing it with us. Now, the home institutions, the other institutions can sometime be reluctant to let a student do a subject with another institution because they're tied to funding. Because I know that Macquarie is reluctant for our students to…

So it gets to the point where it's a push for market share. It's a market share problem. But if that's how tertiary institutions are going to be driven, then I'll push for market share [laughs].

R. Well, you see, I am only wandering into pathways, because the whole idea of Training Packages was to open up pathways. So, you know, kids leave school at year 8 and then at some time decide, you know, wow, I'm interested in music and learn some and get the guitar. Or you know, does something, gets into it somehow. Now, they (…) to a university because, you know, they don't exist as far as the university's concerned. But you know these Training Packages are sort of attempting to create pathways where people can be sort of assessed and say well, "you're of that standard".

It's sort of a standards thing. You're at that standard and you can, I don't know, go to TAFE in Western Sydney and you can do a Certificate IV, or something and then when you have done that, you know you might look at a university and say, "well now I've go this vocational education qualification, can I come into your… because I'd really like to be in the recording?" etc (…) At TAFE it's not in this way of DCMS. And so that, you know, they can get through to that level. How do you see universities working with that?

I. Quite well. Especially, I mean it's interesting in that the university is quite rigid. With our department we are quite often asked what do we need to seek from the students? Do we need a portfolio? Do we need a career history? Do we need to see their creative work? The answer is always "No, it depends on the UAI." It always comes back to the number for a young person coming out of high school.

But it is different for a mature aged student because it can be based on their knowledge of the industry, their certificates and they could come into this tertiary institution as a mature aged student as part of their long term pathway and then they could take that through to PhD level. So that if you go undergrad, honours year, masters and or PhD. And that's getting to a stage where they're developing a body of knowledge on their own which is creative – because a PhD has to be creative. So certainly I think the tertiary sector would slot in well in terms of that pathway you're discussing and there's a sort of quite a prevalent belief that the industry is going to be driven by smaller independent entities and it's potentially going to be so small that it will be the creative manager and an artist. And then building careers so that it's not of macro structure, it's a micro structure and there's lot of different entities.

And if that's the case, then the global networks would become more… would flow through educational institutions perhaps, more than through record companies. Or another example would be that musician who has been out on the road and who's toured a lot could potentially come back into a tertiary institution to then meet people and further generate their own career. I've seen that happen quite a bit. And I mean I remember, I've got a good friend who's a phenomenal jazz guitarist who did end up getting into the Con to do jazz guitar, which is really hard…

R. Oh well, yes, jazz is accepted… that was the first thing to be accepted. I mean that was 25 years ago that jazz started at the Con, I think. But the more commercial popular music, I don't know if it is there yet, is it?

I. We teach it to a certain extent and in terms of the tertiary landscape in New South Wales the niche we have is that we are Macquarie. And Macquarie's overall philosophy is that it's the innovative university, so Phil Hayward started it; he was head of the Media department and he started the Department of Contemporary Music studies – or the Centre for Contemporary Music Studies because it's not a department, which teaches contemporary production, contemporary guitar and contemporary music and popular culture. And the other sister institution is Southern Cross Contemporary Music Department there, yea.

R. OK, well I think you've given all the advice that I'd want you to give to me so I can say thank you for giving me your time.

I. No worries.

Appendix C: Units of Competency

Music Industry Training Package CUS01 to be reviewed by 31 January 2004 Version 1.00

Unit of Competency 1: CUSMCP05A: Create original music

This unit covers the technical, expressive, experimental and music knowledge and skills required to produce original music and to set it down appropriately for use in performance

Element	**Performance criteria**
1 Investigate and experiment with components/musical materials for the expression of ideas	1.1 Identify and use music elements and options from the creative base in the selected area of specialisation that are compatible with own work and planned outcomes in making the creative work
	1.2 Identify and determine the constraints and potential of a range of musical elements relevant to own work and intended outcomes
	1.3 Maintain knowledge of current musical practice and styles in area of specialisation to contribute to and extend own creative work
	1.4 Investigate possible combinations and juxtapositions of a range of resources and techniques for potential technical and creative development
	1.5 Explore and assess the effect of combining a range of materials, resources, elements and techniques in different elements of music for possible incorporation into work
2 Generate and develop concepts or ideas	2.1 Analyse the intended function of the work and clearly establish its objectives and intended outcomes
	2.2 Seek ideas or starting points and experiment with options for realisation of the initial idea
	2.3 Identify basic structural elements for the realisation of the selected idea and investigate their potential for achieving the desired effect
	2.4 Review musical vocabulary and select components that are most appropriate to the musical ideas
3 Produce work	3.1 Use appropriate stylistic expression for period, style and/or genre in selected area of specialisation
	3.2 Set down ideas effectively, by written notation or other means to allow interpretation by performers, publishers, musical directors and/or relevant stage and technical production personnel as required
	3.3 Apply knowledge of appropriate writing for particular instruments in the work including range, tone and balance, and, where required, performers' skills levels
	3.4 Reflect the needs of musical directors, performers, audience and venues in the work as and where required
	3.5 Produce work to agreed timeframe and budget where required
4 Evaluate work	4.1 Identify criteria to provide an effective measure of the success of the work in its context
	4.2 Compare work against previous compositions to assess innovation or development of techniques and ideas
5 Use equipment or	5.1 Explore and analyse the operational capabilities and

technology effectively, where appropriate, to express ideas	limitations of equipment/technology for their effect and possible use in developing creative work 5.2 Select equipment/technology appropriate to the nature and needs of the work 5.3 Set up and use the equipment/technology safely and correctly as and where required 5.4 Use equipment/technology effectively where appropriate to develop and express the initial idea

Range of variables

Variable	**Scope**
Musical elements may include all of the materials of music, and methods of combining the materials such as:	ways of organising pitch such as: notes and rests key signatures and scales accidentals intervals harmony chords all other ways of organising pitch tone colour and instrumentation symbols and instructions for articulation and attack expression marks and instructions rhythm and time signatures silence symbols and instructions for repetition of music sections texture and integration of musical lines integrating and expressing literary texts
Strategies for developing composition skills may include:	working with a tutor in composition courses in music composition courses in literature and own reading listening critically to a wide range of live and recorded music relevant group or associations professional development and other relevant learning opportunities festivals and conferences a range of music making activities analysing and evaluating own work and the work of others analysing the lyrics of a range of songs analysing a range of poetry or other literary texts
Listening may include:	using aural imagination in manipulating musical elements instrument tuning pattern and sequence recognition and memory recognising music systems, structures and practices chords, keys in tonal or other musical systems analysing music instrumentation reproduction of sequences from memory
Musical knowledge may include:	repertoire relevant to area of specialisation music history relevant to area of specialisation instrument knowledge relevant to area of specialisation orchestration relevant to area of specialisation music analyses and research relevant to area of specialisation musical forms, systems, practices and customs relevant to area of specialisation reading and writing music using written music notation such as acoustic and electronic scores, sheet music and chord charts relevant

	to area of specialisation interpretation and/or writing directions for instrumentation, voicing, expression, timbre, attack, pitch, tempi and dynamics relevant to area of specialisation music writing, copying, arranging or editing relevant to area of specialisation improvisation where relevant to area of specialisation reproducing existing music setting down music to be reproduced for performance relevant to area of specialisation
Technical skills may include:	facility with a range of techniques to control and enhance music composition relevant to area of specialisation musical elements and compositional techniques appropriate to style of music making relevant to area of specialisation technical requirements of relevant instruments relevant to area of specialisation for accurate and appropriate voicing and music writing scoring parts appropriate to musical style in the selected area of specialisation proficiency in working with instruments and musical elements relevant to area of specialisation
Technology may include:	use and maintenance of equipment relevant to own music making practice in area of specialisation use of electronic hardware and software for composing and orchestrating relevant to area of specialisation music recording special effects
Workplace considerations may include:	goals, values, objectives, processes and appropriate practices ethical and quality standards of industry / employer / agent / client / audience Copyright Act and amendments music licensing laws OHS contracts contingency planning problem solving

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Professional development	working with an appropriate tutor practising composition in a range of styles relevant to area of specialisation' locating and using resources to broaden music writing experience acquiring and using information to develop music writing practice evaluating and adjusting career directions and plans realistically to advance in area of specialisation evaluating, adjusting and developing own work in line with planned career directions and developing broader skills where appropriate to develop wider career options listening to and discerning the advice of appropriate colleagues, experts and audience groups to adjust work realistically in line with career direction applying OHS principles wherever relevant to work practice

Music craft	demonstrating understanding of chosen musical styles and genres relevant to area of specialisation and their musical forms and conventions for composition and performance
	applying appropriate styles or interpretation relevant to area of specialisation
	using appropriate chords and scales, forms, textures or other elements of musical organisation in music work relevant to area of specialisation
	introducing innovative ideas and new perspectives with an understanding of appropriate composition and performance protocols relevant to area of specialisation
	using solo or group performance/composition protocols and customs where relevant to area of specialisation and intended outcomes
Music knowledge	demonstrating appropriate knowledge of improvisation or setting down work where relevant and as required in an area of specialisation
	applying and extending appropriate repertoire and music history knowledge relevant to area of specialisation
	understanding and applying correct musical terminology relevant to area of specialisation
	understanding systems and musical elements relevant to area of specialisation
	reflecting understanding of appropriate performance protocols relevant to area of specialisation
	knowledge of music in a range of styles relevant to area of specialisation
Listening	recognising intervals, chords, scales and chord progressions relevant to area of specialisation
	understanding appropriate intonation, dynamics, phrasing, rhythm and expression to produce the required or intended sound relevant to selected area of specialisation
	listening critically to, and adjusting, own creative work to achieve the required sound
	listening critically to the creative work of others to inform own work
Technical	planning compositional practice to improve technical skills in improvising, or composing music in area of specialisation
	using a range of composing techniques relevant to selected area of specialisation
	using a variety of scales, chord sequences and music systems or other elements relevant to selected area of specialisation
	using a variety of rhythms, time signatures, beats and rhythmic styles relevant to selected area of specialisation
	using a variety of instruments and instrumental combinations where relevant to area of specialisation
	creating in a variety of styles relevant to area of specialisation
Creative	experimenting in using musical elements in a range of styles
	demonstrating originality and innovative approaches in the use and organisation of musical elements
	extending musical boundaries for self and audience
	experimenting with the synthesis of musical ideas and materials from a range of sources as appropriate in the selected musical specialisation
	listening critically to continuously evaluate and adjust the musical work
Expressive	phrasing and shaping music appropriately relevant to area of specialisation

	understanding and expressing appropriate musical nuance relevant to area of specialisation composing appropriately for the context of venues, sound forces available and perceived audience taste
Technology	using appropriate equipment and/or instruments effectively relevant to area of specialisation using appropriate technology relevant to area of specialisation to improve creative outcomes using technology to set down creative work relevant to area of specialisation investigating technology to enhance artistic and commercial outcomes in area of specialisation
Presentation, communication and promotion	observing cultural protocols appropriate to the genre or area of specialisation matching repertoire with potential, or existing, audience communicating constructively to achieve planned outcomes working creatively with individual differences working constructively with group dynamics identifying and dealing constructively with conflict
Planning and organisation	clarifying roles working within established budgets and timeframes to achieve planned outcomes where required matching work commitments to best career outcomes keeping an accurate and up to date diary of work commitments demonstrating reliability in all agreed work commitments using time management strategies to set priorities
Linkages to other units	This unit has strong linkages to, and may be assessed with, the following units: CUSMGE02A Develop self as artist CUSMGE04A Analyse music CUSMGE01A Maintain self or group in music CUSMGE03A Use instruments equipment and/or electronic technology for making music
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: using systems and musical elements relevant to area or specialisation innovative and inventive use in organising musical elements music and repertoire knowledge relevant to area of specialisation
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: process diary oral questioning on musical elements and compositional techniques discussion of career goals, time management and strategies relevant samples of artistic work with candidate's evaluation samples of work plans authenticated details of relevant courses or training/tuition sessions authenticated details of relevant artistic and/or commercial achievements relevant portfolio kit, tapes, scores, CDs and videos, of practitioner's work case studies as a basis for discussion of music writing ideas, methods and strategies portfolios or other documentation which demonstrate the processes used in realising creative concept Competency in this unit may need to be assessed over a period of

	time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. The assessee must nominate the area of specialisation to be assessed These methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas. Assessment may occur off the job, on the job, or in a combination of on and off the job. Assessment of this unit requires evidence of compositions or a composition assignment covering a range of techniques and styles in a nominated area of specialisation and a viva voce.
Resource requirements	Competency in this unit should be assessed using all of the relevant resources commonly used in the development of artistic skills relevant to the candidate's genre and mode of expression. Specific assessment tools may include: career development plans relevant instruments and/or audio equipment where practical work is being assessed scores and/or work portfolios appropriate venue with adequate space and acoustic qualities

Key competencies	**Level**
Collecting, organising and analysing information	2
Communicating ideas and information	3
Planning and organising activities	3
Working with others and in teams	2
Solving problems	3
Using mathematical ideas and techniques	2
Using technology	2

Unit of Competency 2: CUSLRN03A: Provide tuition for composition

This unit describes competencies required to provide tuition in composition privately to individuals, or groups of less than five, in a private home studio or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

Element	**Performance criteria**
1 Develop own composition practice	1.1 Creatively develop own craft and artistic/expressive skills to maintain own expertise 1.2 Participate in professional associations and routine dialogue with a range of colleagues to maintain current awareness of new developments 1.3 Maintain and use up to date knowledge of education and research relevant to the area of tuition 1.4 Maintain up to date knowledge of technical issues relating to acoustic and electronic sound forces relevant to practice 1.5 Listen to and analyse the work of other composers in a range of cultures, times and genres 1.6 Maintain knowledge and use of appropriate notation and where relevant other means of setting down, conveying and interpreting musical materials
2 Plan own business	2.1 Plan and use a strategic business plan to maximise client base and control accounts and taxation 2.2 Plan and use strategies for evaluation of business, communication and teaching performance
3 Tutor learners in aural skills	3.1 Plan and use exercises to develop learners listening to contribute to their ability to work with the musical materials 3.2 Encourage learners to listen critically to their own and others' compositions to stimulate creative possibilities
4 Tutor learners in music literacy	4.1 Assist learners to understand and use appropriate terminology 4.2 Integrate the learning of relevant musical symbols and concepts into learners' creative work
5 Tutor learners in the craft of music composition	5.1 Facilitate in learners an understanding of the technical resources of relevant acoustic and electronic sound sources 5.2 Assist learners to understand and use appropriate notation/recording to allow creative development and communication of ideas 5.3 Assist learners to learn and use vocabulary appropriate to their needs, aspirations and contexts 5.4 Facilitate learners to develop confidence in using the musical elements underlying structural, i.e. tonal, rhythmic, timbral, textural and stylistic conventions 5.5 Motivate learners to use compositional techniques from a range of musical contexts and conventions 5.6 Encourage learners to discuss the balance of unity and contrast in their own and others' creative work 5.7 Use experiential learning methods to impart theoretical aspects of composition appropriate to the needs, skills and career

	plans of learners
6 Extend students' creative development	6.1 Demonstrate techniques using technology, practical performance, and/or access to performers, to stimulate aural imagination to work freely 6.2 Direct communication with learners towards maintaining enthusiasm and extending creative expression through experimentation and provide constructive feedback 6.3 Design and use strategies to assist learners to develop the habit of constant critical listening to their own work to assess their own creative development 6.4 Encourage learners to explore ideas in a range of cultures, arts and ideas to inspire creative imagination 6.5 Encourage learners to network to discuss creative ideas with other composers and performers 6.6 Extended learners' creative resources by using opportunities to draw broadly on the work of others 6.7 Devise and use strategies to assist learners to develop cultural insight
7 Assist students to explore electronic methods and styles of composition where appropriate	7.1 Maintain and impart knowledge of current hardware and software applications that are useful to learners as compositional tools 7.2 Where relevant plan access to studios for learners to compose with and for electronic media 7.3 Encourage learners to read about and participate in broad media and technology forums/organisations 7.4 Where appropriate, devise opportunities for learners to have electronic mentors
8 Facilitate students' professional development	8.1 Discuss and plan with learners options for recording and presenting creative ideas through performance 8.2 Devise and use strategies to develop critical self reflection in learners to encourage realistic career development planning 8.3 Assist learners to understand the function and context in which work is being created 8.4 Devise and use opportunities for learners to consider audience needs and tastes 8.5 Teach learners to prepare realistic timeliness for composition briefs 8.6 Teach learners to negotiate working briefs to realistic timeframes and budget, including technical production contingencies 8.7 Assist learners to understand costing of briefs in terms of financial and as well as professional development outcomes

Range of Variables

Variable	**Scope**
Strategies for developing musical tuition and direction skills may include:	undertaking instruction in tutoring/mentoring relevant professional development and other learning opportunities being involved in a range of music making activities relevant to area of specialisation relevant groups or associations communicating with peers and in professional forums using physical and electronic means contributing to, and participating in, festivals and conferences listening critically to a wide range of live and recorded music

Listening may include:	instrument tuning listening to adjust the sound in solo performance listening to adjust the sound in group performance aural imagination to develop musical materials and to assists learners to develop musical ideas understanding music systems and practices relevant to area of specialisation chords, keys in tonal or other musical systems relevant to area of specialisation
Musical knowledge may include:	repertoire knowledge instrument knowledge and scoring as required in area of specialisation music analyses and research musical forms, systems, practices and customs reading and writing music using written music notation such as acoustic and electronic scores, sheet music and chord charts as required in area of specialisation interpretation and/or writing of directions for, instrumentation, voicing, expression, timbre, attack, pitch, tempi, dynamics and expression relevant to area of specialisation music writing, copying, arranging or editing relevant to area of specialisation sight reading as required in area of specialisation improvisation setting down musical compositions for performance
Technical skills may include:	understanding of instruments and musical elements facility with techniques to control and enhance musical ideas understanding of appropriate instrumental/vocal performance style and standard musical elements and compositional techniques appropriate to style of music making technical requirements of specific instruments for accurate and appropriate music writing
Technology may include:	use and maintenance of instruments and accessories electronic hardware and software as compositional tools music recording sound reinforcement equipment such as microphones, amplifiers, mixers, cabling special effects devices
Instruments, accessories and equipment may include	voice and other musical instruments, both acoustic and electronic strings reeds mouth pieces mallets/beaters tuners, tuning forks, electronic tuners electronic equipment

Evidence guide

Underpinning knowledge and skills: Tuition	Assessment must include evidence of the following knowledge and skills: understanding of relevant theories of adult learning understanding of methods to effect skill development strategies to stimulate an interest in learning understanding of skill levels and using appropriate training strategies

	demonstrated ability to communicate with learners to achieve agreed learning outcomes
	ability to provide criticism in a constructive manner
	knowledge of OHS and ability to demonstrate and communicate safe performance practice
	expertise in the chosen style of music for which tuition is provided
Professional development	locating and using resources to advance professional development
	acquiring and using information appropriate to career development
	evaluating and adjusting career directions and plans realistically to advance in area of specialisation
	evaluating, adjusting and developing own work in line with planned career directions
	discerning and listening to the advice of appropriate colleagues, experts and learner groups to adjust work in line with career direction
	applying OHS principles wherever relevant to work practice
Music craft	demonstrating understanding of chosen genres and their musical forms and conventions in performance, direction and composition
	demonstrating appropriate styles or interpretation relevant to area of specialisation
	demonstrating appropriate chords and scales, forms, textures or other elements of musical organisation in music work
	teaching appropriate performance and/or composition protocols
Music knowledge	setting down music for performance and evaluating music in performance
	sightreading from charts or musical notation
	applying and extending appropriate repertoire knowledge
	demonstrating relevant musical terminology
	understanding and demonstrating relevant systems and musical elements
	demonstrating appropriate performance protocols
	imparting knowledge of music of a range of styles
Listening	assisting learners to recognise intervals, chords, scales and chord progressions
	understanding appropriate intonation, dynamics, phrasing, rhythm and expression to produce the required sound
	listening critically to the creative work of others to inform own work
	listening critically to, and adjusting, own creative work in composition, private practice, rehearsal and/or performance to achieve the required sound
Technical	planning practice to improve technical facility in performance, improvising, directing or composing music
Creative	demonstrating originality and innovative approaches in the performance, interpretation and/or creation of music
	extending musical boundaries for self and audience
	listening critically to continuously evaluate and adjust the musical work
	combining musical elements in new and innovative ways
Expression	phrasing and shaping music appropriately
	understanding and expressing appropriate musical nuance
	performing or composing appropriately for the context of venues, sound forces available and perceived audience taste
Technology	using appropriate equipment and/or instruments effectively
	using appropriate technology to improve efficiency and musical

	outcomes investigating technology to enhance artistic or commercial outcomes
Presentation, communication and promotion	observing cultural protocols appropriate to the genre or area of specialisation matching repertoire with target, potential or existing audience demonstrating effective interpersonal skills maintaining an appropriate standard of presentation in all promotional materials finding appropriate leads to create strategic opportunities to promote students' work using all available opportunities to present own work in the most advantageous light developing contacts with and knowledge of appropriate agents to assist students using opportunities to effectively develop career goals using leads strategically to showcase work working creatively with individual differences working constructively with group dynamics identifying and dealing positively/constructively with conflict
Planning and organisation	clarifying roles working within established budgets and timeframes to achieve planned outcomes planning events and performance opportunities matching work commitments to best career outcomes keeping an accurate and up to date diary of work commitments demonstrating punctuality in all work commitments using time management strategies to set priorities developing systems for required documentation such as financial, taxation, insurance, copyright and other legal requirements and business plans
Linkages to other units	This unit has strong links to, and may be assessed with, the following units: CUSMGE02A Develop self as artist CUSMGE01A Maintain self or group in music CUSMCP05A Create original music CUSMCP07A Prepare compositions for performance/ publishing CUSMGE06A Read music CUSMGE04A Analyse music CUSMGE07A Analyse harmony
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: effectively identifying own professional development needs repertoire knowledge and compositional skills communicating effectively to achieve planned learning outcomes
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of tuition session oral questioning on tuition strategies discussion of career goals, time management and strategies relevant samples of lesson plans with candidate's evaluation authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements case studies and scenarios as a basis for discussing tuition issues Competency in this unit may need to be assessed over a period of

	time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence It is strongly recommended that the assessment process incorporates the following evidence gathering methods: review of comprehensive portfolios of evidence which demonstrate the processes used in developing the lesson or tuition session through all stages of the process targeted questions aimed at evaluating the processes used in developing the lesson or tuition session through all stages of the process These methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas. Assessment may occur off the job, on the job or in a combination of on and off the job and requires observation of a tuition session and discussion of tuition issues.
Resource requirements	Competency in this unit should be assessed using all of the relevant resources commonly used in the development of artistic skills relevant to the candidate's genre and mode of expression. Specific assessment tools may include: career development plans lesson plans

Key Competencies	**Level**
Collecting, organising and analysing information	3
Communicating ideas and information	3
Planning and organising activities	3
Working with others and in teams	3
Solving problems	3
Using mathematical ideas and techniques	2
Using technology	3

Unit of Competency 3: CUSMPF15A: Perform music as a soloist

This unit covers the technical, expressive, communication and stage skills required to perform for an audience as a soloist.

Element		**Performance criteria**
1	Perform warm up routine	1.1 Ensure that music is fully rehearsed to the required performance standard 1.2 Secure an appropriate space where warm up can be undertaken without causing undue distraction for self and others 1.3 Check instrument and other necessary materials required for the performance to ensure their reliability in performance 1.4 Ensure accurate tuning of instrument where relevant 1.5 Warm up physically for the performance to ensure that sound production is secure from the beginning of the performance 1.6 Relax effectively to ensure an alert performance using techniques for overcoming performance anxiety as required
2	Perform work	2.1 Maintain concentration and focus throughout the performance 2.2 Maintain the required technical instrumental/vocal standard required of the performance 2.3 Communicate the interpretive requirements of the music to accompanist where relevant and as required 2.4 Adjust performance to the scale and nature of the venue and the music 2.5 Monitor and adjust pitch appropriately during the course of the performance 2.6 Perform in a style appropriate to the context of the performance 2.7 Respond flexibly and effectively to contingencies as and where required to maintain the integrity of the performance
3	Perform as a soloist	3.1 Interpret music effectively and in style to make a valid musical statement 3.2 Demonstrate imagination and innovation in the musical interpretation to maintain audience focus and attention 3.3 Use appropriate techniques to effectively realise performance style 3.4 Maintain communication with accompanist and audience to maximise audience engagement 3.5 Focus expressive skills effectively to engage self, accompanist and audience in the performance 3.6 Respond promptly and effectively to musical and stage studio direction as required 3.7 Listen critically to own and others and continuously adjust own performance to produce the required sound 3.8 Demonstrate appropriate intonation dynamics, phrasing, rhythm and expression to produce the require sound 3.9 Sustain the musical line and/or harmony as required in the style and context of performance 3.8 Where relevant, maintain artistic and technical communication at all times with musical director
4	Evaluate performance	4.1 Assess the performance for its success in achieving its potential and incorporate evaluation into future performance to

	achieve best outcomes 4.2 Measure performance against previous work to assess technical and artistic development 4.3 Identify and note weaknesses and errors in the performance to improve performance 4.4 Assess feedback and criticism and use for possible adjustment to future work

Range of variables

Variable	**Scope**
Strategies for developing solo performance skills may include:	working effectively with appropriate tutor practising as a solo performer participating in relevant groups or associations in selected area of specialisation participating in professional development and other learning opportunities in selected area of specialisation attending master classes attending performances contributing to/participating in, festivals and conferences in selected area of specialisation being involved in a range of music making activities as a soloist in selected area of specialisation studying performance techniques in of a range of styles in selected area of specialisation
Listening may include:	listening critically to a wide range of live and recorded music instrument tuning as and where required in selected area of specialisation using aural imagination to develop interpretation pattern and sequence recognition and memory in selected area of specialisation recognising music systems and practices in selected area of specialisation chords, keys in tonal or other musical systems in selected area of specialisation reproduction of sequences from memory where required in selected area of specialisation
Performance techniques may include:	improvisation where required in selected area of specialisation ornamentation appropriate to selected area of specialisation specific methods of instrumental attack in selected area of specialisation performance customs relevant to the style and context of the music in selected area of specialisation preparing instruments during performance as required in selected area of specialisation all other techniques specific to particular styles of music in performance in selected area of specialisation
Music knowledge may include:	repertoire knowledge appropriate to area of specialisation instrument knowledge relevant to selected area of specialisation music analyses and research in selected area of specialisation musical forms, systems, practices and customs in selected area of specialisation reading and writing music using written music, sheet music and chord charts as required in selected area of specialisation interpretation of directions for, instrumentation, voicing,

	expression, timbre, attack, pitch, tempi, dynamics and expression in selected area of specialisation solo and ensemble protocols in selected area of specialisation performance and rehearsal protocols in selected area of specialisation improvisation in performance using aural cues only where required in selected area of specialisation chordal and melodic formulae in selected area of specialisation
Technical skills may include:	understanding instrument and specifications in selected area of specialisation musical elements in selected area of specialisation techniques to control and enhance performance in selected area of specialisation musical elements and techniques appropriate to style of music making such as ornamentation and improvisation in selected area of specialisation technical requirements of relevant instruments for accurate and appropriate performance in selected area of specialisation

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Music knowledge	acquiring and using information and resources to performance development applying and extending appropriate repertoire knowledge in selected area of specialisation understanding relevant musical terminology, systems and musical elements knowledge of music in a range of styles in selected area of specialisation
Music craft	recognising intervals, chords, scales and chord progressions in selected area of specialisation selecting and working with accompanists to achieve best performance outcomes demonstrating understanding of chosen genres and their musical forms and conventions in performance using appropriate chords and scales, forms, textures or other elements of musical organisation in performance as required using relevant performance protocols and customs
Technical	planning practice and using feedback to identify strengths and weaknesses in technique to improve technical facility in performance practicing strategically to overcome specific technical/expressive/sound production problems using a range of instrumental techniques in selected area of specialisation using a variety of scales, chord sequences and music systems in selected area of specialisation using a variety of rhythms, time signatures, beat patterns and rhythmic styles relevant to selected area of specialisation using appropriate equipment and/or instruments effectively as required
Expression	extending musical boundaries in performance for self and audience within the performance context

	phrasing and shaping music appropriately understanding and expressing appropriate musical nuance achieving own individual style of musical expression performing appropriately for the context of venues, available sound forces and perceived audience taste
Linkages to other units	This unit has strong linkages to, and may be assessed with, the following units: CUSMPF17A Develop technical skills and expand repertoire CUSMPF03A Develop and maintain stagecraft skills CUSMPF09A Evaluate and extend performance technique CUSMGE04A Analyse music CUSMGE06A Read music CUSMPF04A Prepare self for performance CUSMPF05A Rehearse music for performance CUSMGE02A Develop self as artist
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: proficiency in performance on relevant instrument/voice ability to prepare performance to the required standard listening effectively to adjust intonation and nuance in performance accurate/innovative interpretation and expression effectiveness in solo performance
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of solo performance oral questioning on performance strategies discussion of planning for a solo performance relevant samples of artistic work with candidate's evaluation authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements relevant portfolio kit, tapes, scores, CDs, videos, biographies describing practitioner's work simulation of a solo performance event case studies and scenarios as a basis for discussion of methods, strategies and other issues in solo performance portfolios or other documentation which demonstrate the processes used in realising creative concept Competency in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. The assessee must nominate the area of specialisation to be assessed in this unit. Assessment may occur off the job, on the job or in a combination of on and off the job. Assessment of this unit requires assessment of solo performance in the nominated area of specialisation.
Resource requirements	Competency in this unit should be assessed using all of the relevant resources commonly used in the development of artistic skills relevant to the candidate's genre and mode of expression. Specific assessment tools may include: relevant instruments and/or equipment recordings or work portfolios other relevant participants where practical ensemble work is being

	assessed appropriate venue with adequate space and acoustic qualities for solo performance

Key competencies	**Level**
Collecting, Organising and Analysing Information	3
Communicating Ideas and Information	3
Planning and Organising Activities	3
Working with Others and in Teams	2
Solving Problems	3
Using Mathematical Ideas and Techniques	3
Using Technology	-

Unit of Competency 4: CUSLRN02A: Provide instrumental/vocal tuition

This unit describes competencies required to teach instruments, including voice, privately to individuals, or groups of less than five, in a private home studio, or a studio attached to a larger organisation. It does not cover teaching in a classroom situation, or conducting ensembles. The skills and knowledge described in this unit include creative thinking processes and therefore do not necessarily occur in the sequence presented.

Element	**Performance criteria**
1 Develop self as a private studio teacher	1.1 Maintain and apply current knowledge of technical issues relating to the instrument/voices taught 1.2 Maintain and apply broad and specialised knowledge of repertoire relevant to the area of specialisation in which tuition is provided 1.3 Maintain and apply relevant current knowledge of education and research in instrumental and/or vocal tuition 1.4 Participate in professional organisations to network with colleagues and discuss ideas 1.5 Study relevant professional and music industry journals to maintain current pedagogical and music knowledge 1.6 Plan and implement a strategic business plan to maximise client base and control records, accounts and taxation 1.7 Plan and implement continuous evaluation of own business, communication and teaching performance
2 Plan and implement individual and small group tuition programs	2.1 Apply understanding of cognitive development, motivation and learning psychology to learners and to developing learning programs 2.2 Provide routine opportunities for learners to perform solo, in ensembles and for an audience to develop confidence in performance 2.3 Ensure that learning programs and repertoire are appropriate to individual stages and interests of learners 2.4 Discuss program structure and content with learners appropriate to age, musical aspirations and skill 2.5 Where appropriate plan specific skills development, goals and outcomes in individual learning programs in collaboration with learners 2.6 Communicate constructively with learners to maintain their interest and enthusiasm while extending performance range and standard
3 Teach music literacy	3.1 Assist learners to understand and use appropriate terminology relevant to the area of specialisation 3.2 Integrate the learning of relevant musical symbols and concepts relevant to the area of specialisation into learners performance
4 Teach the instrument/voice	4.1 Apply knowledge and understanding of appropriate technique to demonstrate optimum posture and attack 4.2 Provide supportive critical advice to develop confidence in performance and to foster self esteem in learners 4.3 Facilitate constant critical self listening in learners to foster independent learning
5 Assist learners to	5.1 Provided specific exercises, and/or other appropriate

	develop technical proficiency in performance	learning materials to facilitate learners' progress to control of the instrument/voice 5.2 Demonstrate and rehearse with learners appropriate techniques to assist them to develop control and perception of pitch and timbre 5.3 Demonstrate and rehearse with learners specific instrumental/vocal techniques to assist them to develop accurate and fluent performance 5.4 Demonstrate and rehearse techniques with learners for the care and maintenance of the instruments 5.5 Instruct learners in the conventions and performance customs relevant to the area of music specialisation
6	Teach expressive skills	6.1 Discuss expressive options appropriate to learners work and encourage learners to consider interpretation in performance 6.2 Discuss the forms of pieces with learners, appropriate to their age and stage of musical development to explore expressive possibilities and options 6.3 Encourage learners to experiment with phrasing and shaping pieces to broaden expressive style 6.4 Encourage learners to use dynamics, attack and appropriate tempi to shape the work 6.5 Encourage learners to listen critically and develop sensitivity to and appreciation of appropriate style and nuance in performance appropriate to age and stage of musical development
7	Teach repertoire and contexts of interpretation	7.1 Use strategies to extend learners' experience of a broadening range of music that reflect and understanding of their age and level of musical development 7.2 Allow time for learners to evaluate and perform music of their own choice in the learning program where possible and appropriate 7.3 Teach learners to listen to, read about, and critically discuss a range of music for their instrument/voice according to age and stage of development 7.4 Teach learners to listen critically and to discuss a range of performance interpretations according to age and stage of musical development 7.5 Encourage students to experiment with technology where appropriate to enhance performance outcomes
8	Teach performance presentation skills	8.1 Plan appropriately for learners to attend performances and/or to view or listen to recorded performances critically 8.2 Ensure that any repertoire intended for performance is always within the technical ability of the performer 8.3 Provide opportunities for learners to plan a performance program appropriate to age and stage of musical development 8.4 Provide opportunities for learners to critically discuss presentation standards in performances they have experienced 8.5 Include performance presentation outcomes in individual learning programs 8.6 Create controlled and appropriate opportunities for learners to prepare simulated auditions and discuss each others' work where possible 8.7 Advise learners on protocols and customs for dress and presentation to enhance performance for an audience 8.8 Encourage learners to discuss techniques for communication with an audience to express musical ideas
9	Provide effective	9.1 Encourage learners to discuss career interests and goals to

career advice	assist in career planning where appropriate 9.2 Apply current knowledge of the industry and skill requirements and needs in career counselling for learners 9.3 Apply current knowledge of courses suiting the specific needs of learners in advising on future artistic directions 9.4 Give relevant advice on career opportunities pertinent to learners' instruments/voices and other related career options 9.5 Advise learners how to prepare and present an appropriate and effective audition program 9.6 Advise learners how to prepare audition tapes appropriate to a variety of contexts where appropriate to music specialisation 9.7 Plan and use strategies to assist learners to become self directed, life long learners
10 Evaluate own and learners' performance	10.1 Plan and use evaluation indicators that are appropriate to the teaching practice and context to continuously evaluate outcomes 10.2 Allow learners input into the evaluation plan in ways appropriate to their ages and performance contexts 10.3 Use appropriate, fair and consistent criteria to evaluate individual learners 10.4 Involve individual learners in self assessment and where appropriate in peer assessment
11 Facilitate a positive attitude to and knowledge of OHS	11.1 Demonstrate and consistently reinforce safe performance practice, posture and use of appropriate sound levels, seating and lighting 11.2 Advise learners of all specific safety issues relating to their instrument/voice 11.3 Advise learners of specific safety issues relating to their performance and potential performance venues 11.4 Advise learners on reasonable duration for practice sessions and rehearsal in the context of instrument played or voice 11.5 Rehearse safe warming up strategies and other OHS techniques that are specific to the instruments/voice with learners 11.6 Advise learners on safe and healthy conditions for practice, rehearsals and performances

Range of variables

Variable	**Scope**
Strategies for developing instrumental teaching skills may include:	courses and master classes professional development and other learning opportunities relevant groups or associations reading and discussing appropriate professional journals communicating with peers and in professional forums using physical and electronic means contributing to, and participating in, festivals and conferences being involved in a range of relevant music making activities listening critically to a wide range of live and recorded music
OHS issues and techniques mar relate to:	healthy posture specific use of physique in relation to performance specific instrumental performance such as: voice percussion brass strings including violin and guitar families

	reeds and woodwind keyboards electronic on parts of the physique such as ears/hearing trunk shoulders neck arms lips tongue and larynx eyes
Listening may include:	instrument tuning listening to adjust the sound in solo performance listening to adjust the sound in group performance aural imagination to develop the musical materials pattern and sequence recognition and memory recognising music systems and practices chords, keys in tonal or other musical systems reproduction of sequences from memory
Musical knowledge may include	repertoire music history instrument knowledge music analyses and research musical concepts, forms, systems, practices and customs reading and writing music using written music notation such as acoustic and electronic scores, sheet music and chord charts interpretation and/or writing of directions for, instrumentation, voicing, expression, timbre, attack, pitch, tempi, dynamics and expression music writing, copying, arranging or editing sight reading improvisation reproducing existing music making musical compositions available to be reproduced for performance
Technical skills may include	proficiency in instrumental/vocal performance understanding of musical elements scales and other routine exercises technical control to produce required sound facility with techniques to control and enhance music making virtuosity to produce appropriate instrumental/vocal performance style and standard compositional techniques appropriate to style of music making technical requirements of specific instruments/voices for accurate and appropriate music making
Technology may include	use and maintenance of instruments and accessories music recording sound reinforcement equipment such as microphones, amplifiers, mixers, cabling lighting and lighting equipment special effects tools
Instruments, accessories and equipment may include	voice and other musical instruments, both acoustic and electronic strings

	reeds mouth pieces mallets/beaters tuners, tuning forks, electronic tuners electronic equipment
Workplace considerations may include	goals, values, objectives, processes and appropriate practices ethical standards of industry/ employer/ agent/ client/ audience Copyright Act music licensing laws contingency planning problem solving

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Tuition	understanding relevant theories of adult learning understanding methods to effect skill development strategies to stimulate an interest in learning understanding of skill levels and using appropriate learning strategies demonstrated ability to communicate with learners to achieve planned learning outcomes ability to provide criticism in a constructive manner knowledge of OHS and ability to demonstrate and communicate safe performance practice expertise in the chosen style of music for which tuition is provided
Professional development	locating and using resources to advance career development acquiring and using information appropriate to career development evaluating and adjusting career directions and plans realistically to advance in area of specialisation evaluating, adjusting and developing own work in line with planned career directions discerning and listening to the advice of appropriate colleagues, experts and audience groups to adjust work in line with career direction applying OHS principles wherever relevant to work practice
Music craft	demonstrating understanding of chosen genres and their musical forms and conventions in performance, direction or composition applying appropriate styles or interpretation relevant to area of specialisation using appropriate chords and scales, forms, textures or other elements of musical organisation in music work using appropriate performance and/or composition protocols using solo or group performance/composition protocols and customs that are relevant to area of specialisation demonstrating appropriate literacy, undertaking live improvisation or sight reading, where relevant and required
Music knowledge	setting down music for performance or interpreting music in performance improvisation or sightreading from charts or musical notation relevant to styles of music being taught applying and extending appropriate repertoire knowledge understanding and imparting relevant musical terminology

	understanding and imparting relevant systems and musical elements
	understanding, applying and imparting appropriate performance protocols
	knowledge of music of a range of styles
Listening	recognising intervals, chords, scales and chord progressions
	understanding appropriate intonation, dynamics, phrasing, rhythm and expression to produce the required sound
	assisting learners to develop critical listening and self assessment
	assisting learners to listen critically to the creative work of others to inform their own work
	listening critically to, and assisting learners to adjust creative work in performance to achieve the required sound
Technical	planning practice to improve own technical facility in performance to demonstrate technique for learners
	planning effective technical regimes for learners
	effectively demonstrating appropriate techniques for learners
Creative	demonstrating originality and innovative approaches to coach performance, interpretation and/or improvisation of music
	extending musical boundaries for self and learners in areas of music specialisation taught
	assisting learners to listen critically to continuously evaluate and adjust the musical work
	assisting learners to interpret music with appropriate style in intonation, rhythm, attack, timbre, dynamics and tempi required in area of music specialisation
Expression	facilitating learners to phrase and shape music appropriately and creatively
	facilitating learners to understand and express appropriate musical nuance
	assisting learners to perform appropriately for the context of venues, sound forces available and perceived audience taste
	assisting learners to engage the audience in the work
Technology	assisting learners to use appropriate equipment and/or instruments effectively
	assisting learners to use appropriate technology to improve efficiency and musical outcomes
	investigating technology to assist learners to enhance artistic or commercial outcomes
	using new technology in tuition practice where possible and relevant
Presentation, communication and promotion	assisting learners to understand and observe cultural protocols appropriate to the genre or area of specialisation
	encouraging learners to use appropriate posture, dress and other performance protocols
	assisting learners to match repertoire with the performance context and expectations
	communicating constructively to achieve planned outcomes
	maintaining an appropriate standard of presentation in all promotional materials
	finding appropriate leads to create strategic opportunities to expand the business
	using all available opportunities to present own and students' work in the most advantageous light
	developing contacts with and knowledge of appropriate agents to assist students
	using opportunities to effectively develop career goals

	using leads strategically to showcase learners' work working creatively with individual differences working constructively with group dynamics identifying and dealing constructively with conflict
Planning and organisation	clarifying roles planning effective tuition programs that reflect understanding of learners ages, stage of musical development and learning needs working within planned budgets and timeframes to achieve planned outcomes planning events and performance opportunities matching work commitments to best career outcomes keeping an accurate and up to date diary of work commitments demonstrating punctuality in all work commitments using time management strategies to set priorities developing systems for required documentation such as assessment, financial, taxation, insurance, copyright and other legal requirements and business plans
Linkages to other units	This unit has strong linkages to, and may be assessed with, the following units: CUSBGE16A Maintain self or group in business CUSMGE01A Maintain self or group in music CUSMGE02A Develop self as artist CUSMGE03A Use instruments equipment and/or technology for making music CUSMGE04A Analyse music CUSMGE06A Read music CUSMGE07A Analyse harmony CUSMPF03A Develop and maintain stagecraft skills CUSMPF04A Prepare self for performance CUSMPF11A Perform music as part of a group CUSMPF12A Plan, prepare and present a live audition program CUSMPF15A Perform music as a soloist
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: effectively identifying own learning and professional development needs ability in musical performance ability to develop talent in others ability to convey relevant music literacy and repertoire knowledge
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of simulated tuition session oral questioning on tuition strategies discussion of career goals, time management and strategies relevant samples of teaching programs with candidate's evaluation samples of lesson plans authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements case studies and scenarios as a basis for discussing tuition issues Competency in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary

	forms of evidence. The assessee should nominate the area of teaching specialisation to be assessed in this unit. It is strongly recommended that the assessment process incorporates the following evidence gathering methods: review of comprehensive portfolios of evidence which demonstrate the processes used in developing the lesson or tuition session through all stages of the process targeted questions aimed at evaluating the processes used in developing the lesson or tuition session through all stages of the process These methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas. Assessment may occur off the job, on the job or in a combination of on and off the job and requires observation of a tuition session and evidence of lesson and program planning and discussion of the demonstration lesson.
Resource requirements	Competency in this unit should be assessed using all of the relevant resources commonly used in the development of teaching skills relevant to the candidate's genre and mode of expression. Specific assessment tools may include: career development plans copies of relevant OHS, copyright and licensing regulations relevant instruments and/or equipment where practical work is being assessed teaching plans and resources business plans other relevant participants where practical ensemble work is being assessed appropriate venue with adequate space and acoustic qualities

Key competencies	**Level**
Collecting, organising and analysing information	3
Communicating ideas and information	3
Planning and organising activities	3
Working with others and in teams	3
Solving problems	3
Using mathematical ideas and techniques	2
Using technology	3

Unit of Competency 5: CUSMPF10A: Develop and practice improvisation

This unit covers the acquisition of skills in using relevant harmonic elements, materials and protocols to demonstrate creative improvisation, in music performance.

Element	**Performance criteria**
1 Investigate and experiment with technical elements for creative expression	1.1 Identify and experiment with appropriate harmonic patterns to allow for the development of an effective and spontaneous creative response from written and/or aural cues 1.2 Identify and use harmonic elements in relevant musical styles and systems to develop and extend creative possibilities in own performance 1.3 Practise forming coherent melodic lines from harmonic/ chordal cues 1.4 Identify and determine the constraints and potential of a range of musical elements for developing improvisation 1.5 Maintain knowledge of current musical practice and styles which can contribute to and extend own creative work 1.6 Investigate possible combinations and juxtapositions of a range of resources and techniques for potential technical and creative development 1.7 Explore and assess the effect of combining a range of materials, resources and techniques in different structural elements of music for possible incorporation into work 1.8 Use performance and practice opportunities to experiment with interpretation and extend skills in improvisation
2 Investigate improvising for a range of purposes	2.1 Consider the function of creative work and available instrumental forces/resources 2.2 Consider potential specific purposes to stimulate or inform improvisation for different purposes such as advertising, film or other commission possibilities 2.3 Experiment with a range of expressive styles appropriate to a range of works from different periods, styles and genres 2.4 Investigate instrumental forces for range, tone, and balance to extend own performance 2.5 Consider the potential needs of musical directors, performers, audience and venues in developing improvisations
3 Generate and develop concepts or ideas	3.1 Confirm the intended function of the work with other players where appropriate 3.2 Seek ideas or starting points and experiment with options for realisation of the initial idea in collaboration with others where possible 3.3 Identify basic structural elements for realisation of musical ideas and investigate their potential for achieving the desired effect 3.4 Review musical vocabulary and musical elements that are most appropriate to the selected ideas
4 Improvise in context	4.1 Demonstrate in the improvisation the choice and use of music vocabulary appropriate to the intent of the work 4.2 Structure the improvisation appropriately for the overall intent and style of the work 4.3 Observe ensemble customs and protocols within the performance context in solo improvisation and/or as part of accompaniment as required 4.4 Maintain parameters of the improvisation relevant to the style, other players and audience response as appropriate
5 Use equipment or technology effectively, where appropriate, to express ideas	5.1 Explore and analyse the operational capabilities and limitations of equipment/technology for their effect and possible use in developing creative work

		5.2 Select instruments and/or equipment/technology appropriate to the nature and needs of the work 5.3 Set up and use the equipment/technology safely and correctly 5.4 Use equipment/technology effectively and where appropriate to initiate, develop and express ideas
6	Evaluate work	6.1 Apply listening skills to continuously evaluate and adjust own work 6.2 Identify ways of effectively measuring the success of the work 6.3 Record work at various times for immediate and future evaluation 6.4 Analyse performance to develop own creative work 6.5 Compare work against previous output to assess innovation or development of techniques and ideas

Range of variables

Variable	**Scope**
Strategies for developing improvisational skills may include:	working with an expert tutor listening critically to a wide range of live and recorded improvised music working with a range of harmonic techniques to develop improvising skills participating in relevant groups or associations in selected area of specialisation participating in professional development and other learning opportunities relevant to selected area of specialisation contributing to/participating in, festivals and conferences in selected area of specialisation being involved in a range of music making activities in selected area of specialisation studying improvisational techniques in a range of styles
Listening may involve:	instrument tuning aural cues aural imagination to develop the musical materials in performance pattern and sequence recognition and memory
Musical knowledge may include:	music systems and practices in selected area of specialisation chords, keys in tonal or other musical systems in selected area of specialisation reproduction of sequences from memory repertoire in selected area of specialisation instrument knowledge in selected area of specialisation musical elements and customs for improvisation in selected area of specialisation music analyses and research in selected area of specialisation musical forms, systems, practices and customs in selected area of specialisation reading and writing music using written music, sheet music and chord charts as required in selected area of specialisation interpretation of directions in selected area of specialisation for: instrumentation voicing expression timbre attack pitch tempi dynamics improvisation using aural cues only chordal and melodic formulae in selected area of specialisation

Technical skills may include:	physical mastery of instrument/s and musical elements in selected area of specialisation a range of techniques to control and enhance performance in selected area of specialisation musical elements and compositional techniques appropriate to style of music making in selected area of specialisation technical requirements of instruments in selected area of specialisation
Technology may include	use and maintenance of equipment required in selected area of specialisation use of electronic hardware and software for improvising required in selected area of specialisation music recording special effects

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills: listening to and discerning the advice of appropriate colleagues, experts and audience groups to adjust work realistically in line with career development demonstrating understanding of chosen genres and their musical forms and conventions for improvisation in selected area of specialisation applying chord schemes to improvisation required responding appropriately to aural cues using appropriate chords and scales, forms, textures or other elements of musical organisation in creative work using a range of improvising techniques in selected area of specialisation using a variety of rhythms, time signatures, beat patterns and rhythmic styles in selected area of specialisation practising in a variety of instrumental combinations in selected area of specialisation demonstrating originality and innovative approaches in improvisation in selected area of specialisation extending musical boundaries for self and audience phrasing and shaping music appropriately understanding and expressing appropriate musical nuance
Linkages to other units	This unit has strong linkages to, and may be assessed with, the following units: CUECOR2A Work with others CUSMGE04A Analyse music CUSMGE03A Use instruments, equipment and/or electronic technology for making music CUSMGE01A Maintain self or group in music CUEMGE02A Develop self as artist CUSMPF04A Prepare self for performance CUSMPF08A Contribute to backup accompaniment for performance CUSMPF09A Evaluate and extend performance technique CUSMPG11A Perform music as part of a group
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: demonstrated skill in using relevant systems and musical elements in selected area of specialisation critical listening and aural imagination in developing the musical

	material in performance responding appropriately to aural or written cues
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of practical improvisation process diary oral questioning on assessee's performance in improvisation authenticated samples of assessee's artistic work with candidate's evaluation samples of work plans containing details of work components authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements in selected area of specialisation relevant portfolio kit, tapes, scores, CDs, videos, biographies of practitioner's work case studies as a basis for discussion of issues, methods and strategies to develop improvisational practice portfolios or other documentation which demonstrate the processes used in realising creative concept Competency in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. The assessee must nominate the area of music specialisation to be assessed. Assessment may occur off the job, on the job or in a combination of on and off the job. Assessment in this unit requires a practical examination of improvisation in the nominated area of music specialisation.
Resource requirements	Specific assessment tools may include: relevant instruments and/or equipment where practical work is being assessed authenticated recordings or work portfolios of assessee's work other relevant participants where practical ensemble work is being assessed appropriate venue with adequate space and acoustic qualities

Key competencies	**Level**
Collecting, Organising and Analysing Information	2
Communicating Ideas and Information	2
Planning and Organising Activities	2
Working with Others and in Teams	3
Solving Problems	3
Using Mathematical Ideas and Techniques	-
Using Technology	3

Unit of Competency 6: CUSMPF16A: Perform improvisation for audience

This unit describes the aural, musicological and creative competencies required to perform improvisation for an audience as part of an ensemble.

Element	**Performance criteria**
1 Prepare for ensemble improvisation	1.1 Establish and confirm context, nature and purpose of improvisation with the performing group where and as required 1.2 Negotiate and undertake requirements for preparatory work within the group 1.3 Establish the starting point of the piece 1.4 Confirm the length and scope of the improvisation 1.5 Plan and agree strategies to allow clear communication within the group during the improvisation to allow the music to flow
2 Contribute to the work of ensemble	2.1 Ensure that own contribution extends and enhances the overall piece 2.2 Support and enhance the contribution of others to achieve best performance outcomes within the context of the performance 2.3 Pick up and fully develop stimulation and starting points provided by other players 2.4 Make improvisation sensitive to the needs of other performers to stimulate the whole ensemble
3 Contribute solo improvisation as required	3.1 Respond accurately to the starting cue 3.2 Develop material effectively from harmonic and/or rhythmic cues 3.3 Sustain musical impetus in the solo improvisation through dynamic use of the musical materials 3.4 Maintain stylistic cohesion in the realisation of harmony, melody, and/or rhythm and musical expression 3.5 Listen carefully to other performers, respond aurally to their work and adjust own performance appropriately 3.6 Provide a clear cue to the ensemble to finish the solo section 3.7 Ensure that the duration of the solo section accords with the custom and practice of the group and/or musical style 3.8 Acknowledge applause in accordance with the custom and practice of the group and/or musical style
4 Evaluate improvisation	4.1 Establish measures and methods that contribute to objective assessment for evaluating the success of the work in its context 4.2 Assess and confirm with appropriate people the extent to which the improvisation has explored fully the potential of the intent in content, style and structure 4.3 Record performances where possible for evaluation purposes 4.4 Measure performance against previous performances to assess development of self and ensemble 4.5 Seek and use feedback and use to adjust performance 4.6 Analyse performance for any potential contribution it may make to further work 4.7 Consider weaknesses and strengths to inform future performance

Range of variables

Variable	**Scope**
Strategies for developing improvisational skills may	working with a tutor/mentor/coach to continuously develop improvisational technique

include:	practicing realisations on harmonic and/or rhythmic patterns alone and with other performers participating in relevant groups or associations in area of specialisation participating in professional development and other learning opportunities relevant to musical specialisation contributing to/participating in, festivals and conferences relevant to musical specialisation being involved in a range of music making activities in improvisation studying improvisational techniques in of a range of styles listening critically to a wide range of live and recorded music
Listening may include:	instrument tuning responding to aural cues aural imagination to develop musical ideas pattern and sequence recognition and memory recognising music systems and practices in area of specialisation chords, keys in tonal or other musical systems in area of specialisation reproduction of sequences from memory
Musical knowledge may include:	music vocabulary relevant to music specialisation repertoire relevant to music specialisation instrument knowledge in area of specialisation harmony and scale systems in area of specialisation music analyses and research in area of specialisation musical forms, systems, practices and customs in area of specialisation reading and writing music using written music, sheet music and chord charts relevant to area of specialisation interpretation of directions for instrumentation, voicing, expression, timbre, attack, pitch, tempi, dynamics improvisation using aural or written cues as required in area of specialisation chordal and melodic formulae in area of specialisation rhythmic patterns in area of specialisation
Technical skills may include:	physical mastery of instruments and musical elements in area of specialisation a range of techniques to control and enhance performance in area of specialisation musical elements and improvisational techniques appropriate to style of music making technical requirements of relevant instruments in area of specialisation
Technology may include:	use and maintenance of equipment and instruments required in area of specialisation use of electronic hardware and software for improvising where required in area of specialisation music recording special effects

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Music knowledge	demonstrating understanding of chosen styles and genres and their musical forms and conventions for improvisation applying chord schemes or rhythmic patterns understanding and applying rhythmic conventions

	using appropriate musical and performance protocols
Listening	responding appropriately to aural and written cues as required using aural imagination to develop and embellish themes in performance
Music craft	applying appropriate styles or interpretation using appropriate chords and scales, chord sequences, forms, textures, rhythms and elements of musical organisation in improvisation as required
Technical	demonstrating technical facility with the performance medium using a range of improvising techniques and styles in area of specialisation using a variety of rhythms, time signatures, beat patterns and rhythmic styles in area of specialisation
Creative and expression	demonstrating originality and innovative approaches in improvisation developing musical themes listening critically to continuously evaluate and adjust the musical work phrasing and shaping music appropriately understanding and expressing appropriate musical nuance working creatively with individual differences
Linkages to other units	This unit has strong linkages to, and with, the following units: CUECOR2A Work with others CUSMGE01A Maintain self or group in music CUSMPF03A Develop and maintain stagecraft skills CUSMPF04A Prepare self for performance CUSMGE04A Analyse music CUSMPF17A Develop technical skills and expand repertoire CUSMPF11A Perform music as part of a group
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: using relevant systems and musical elements in area of specialisation responding creatively to aural or written cues as required listening and aural imagination to develop the musical materials collaborating and communicating in musical and ensemble performance
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of performance oral questioning on the musical structures of improvisation relevant samples of artistic work with candidate's evaluation authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements relevant portfolio kit, tapes, scores, CDs, videos, biographies of candidate's work simulation of improvisation for an audience case studies and scenarios as a basis for discussing issues in performance of improvisation portfolios or other documentation which demonstrate the processes used in realising creative concept Competency in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. The assessee must nominate the area of specialisation to be assessed Assessment may occur off the job, on the job or in a combination of

	on and off the job. Assessment of this unit requires direct examination of solo and group improvisation before an audience of at least ten in the nominated area of music specialisation. The performance should be of at least twenty minutes duration. Additionally at least three other methods of assessment listed above should be used to assess this unit.
Resource requirements	Assessment tools may include: relevant instruments and/or equipment authenticated recordings or work portfolios other relevant participants appropriate venue with adequate space and acoustic qualities an audience

Key Competencies	**Level**
Collecting, Organising and Analysing Information	2
Communicating Ideas and Information	3
Planning and Organising Activities	3
Working with Others and in Teams	3
Solving Problems	3
Using Mathematical Ideas and Techniques	
Using Technology	3

Unit of Competency 7: CUSSOU17A: Develop and implement sound production for a recording

This unit describes the technical, artistic, expressive, communication and sound design competencies required for producing a recording.

Element	Performance criteria
1 Develop and confirm a vision for the required artistic outcome	1.1 Apply knowledge of commercial music trends, market niches, new musical styles and artists as required to develop the musical vision and concept for the recording project 1.2 Establish and confirm with relevant personnel the budget for the recording project in line with financial risk analysis 1.3 Apply musicianship, knowledge of repertoire, technical knowledge and awareness of sound design possibilities to develop the underlying artistic style and sound concepts for the recording 1.4 Discuss and confirm a vision for the sound concepts with relevant personnel to achieve consensus on artistic values and agreed outcomes for the project 1.5 Address copyright issues to ensure that the recording process and product complies with legislation
2 If required identify appropriate artists for the recording project	2.1 Where required, identify the required style of the artists against the intended outcome and provide recommendations for relevant personnel based on available or proposed artists 2.2 Finalise and confirm repertoire, artists, project vision and operational details for the project in consultation with relevant personnel as required
3 Confirm arrangements	3.1 Confirm the artistic vision and production values required for the recording project and planned artistic outcomes 3.2 In collaboration with artists ensure that adequate time and facilities are provided to achieve the agreed performance standard within time and budget constraints 3.3 Plan and agree communication processes and time schedules with artists and technical production personnel 3.4 Ensure that time schedules are drawn up and distributed to each artist for all proposed rehearsal and recording sessions 3.5 Liaise with technical staff and recording site as required
4 Undertake the recording sessions	4.1 Confirm that sessions are scheduled to allow adequate rehearsal and sound testing prior to main recording sessions 4.2 Record parts, ensuring that methods are appropriate to artistic vision 4.3 Select and place microphones 4.4 Communicate criticism of performers' work in a balanced, constructive and supportive manner that includes positive and obtainable options to achieve the desired artistic outcomes 4.5 Ensure that individual perspectives are considered and conflicting requirements are recognised and constructively negotiated 4.6 Continuously monitor all aspects of the recording and adjust where necessary to achieve desired artistic values
5 Evaluate the recording process and product	5.1 Discuss and obtain agreement on possible indicators for evaluating the recording process and completed product

	5.2 Seek and obtain feedback from relevant sources to assess the recording process and product 5.3 Use evaluation results to improve future practice

Range of variables

Variable	**Scope**
Recording projects may be for:	solo artists solo artists with backing groups/ensembles vocal instrumental, acoustic and/or electronic vocal and instrumental
Listening may include:	discrimination of artistic/musical quality of performing artists enhancing sounds adjusting tone colour and sound sweetening instrument tuning listening to adjust the sound balance for solo or group performance discriminating and enhancing musical texture and tone colour aural imagination to envisage sound possibilities and ways to achieve them discriminating music systems and practices recognising chords, keys in tonal or other musical systems understanding acoustics
Musical knowledge includes:	repertoire instrument knowledge music analyses and research musical styles, forms, systems, practices and customs performance customs of music genres relevant to selected area of music recording
Technical skills include:	instruments and their sound capabilities in recording technical capabilities to produce required sound techniques to direct and enhance music performance technical requirements of specific instruments
Technology may include:	instruments and accessories using technology to enhance sound music/sound recording equipment microphones, amplifiers, mixers, cabling mixing consoles special effects devices
Workplace considerations may include:	copyright legislation OHS music licensing legislation

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Music craft and knowledge	demonstrating understanding of chosen styles and genres and their musical forms and conventions working sympathetically with appropriate styles of musical interpretation and sound production

	applying and extending appropriate repertoire knowledge understanding relevant musical terminology understanding relevant systems and musical elements
Listening	using aural imagination to develop coherent and innovative artistic sound outcomes within the scope of planned artistic and commercial objectives discriminating and enhancing texture and tone colour in line with planned objectives understanding appropriate intonation, dynamics, phrasing, rhythm and expression to produce the required sound listening critically to the creative and technical work of others listening critically to, and adjusting performance of others to achieve the required sound
Technical	effectively applying knowledge of acoustics in sound production to recording projects demonstrating understanding of sound design and audio engineering understanding techniques such as: microphone and instrument/voice placement application of effects (and logging effects) mixing sound sources applying knowledge of acoustics to instruments/voices in placements and settings for sound balance in recording using appropriate technology to improve efficiency in the recording process and artistic outcomes
Creative	demonstrating artistic leadership using innovative approaches in recording to enhance the interpretation and performance of music or to create new possibilities through artistic and technical effects listening critically to continuously evaluate and adjust the production of musical work interpreting music appropriately to ensure a sympathetic and appropriate approach to sound production
Expression	shaping the music/sound imaginatively, appropriately and sympathetically understanding and expressing musical nuance in sound production appropriate to the performance being recorded while originating own artistic interpretation demonstrating an understanding of the context of the musical style, the performers and expected audience taste in developing the sound values and artistic choices for recording projects
Presentation, communication and promotion	observing cultural protocols appropriate to the style and genre of the performance understanding artists' requirements working effectively with artists working constructively with group dynamics identifying and dealing constructively with conflict
Planning and organisation	clarifying roles managing budgets and timeframes planning recording projects using time management strategies to set priorities developing systems for required documentation as required directing and monitoring the work of others
Linkages to other units	This unit has linkages with other sound production units and combined training and/or assessment is recommended. This unit may be assessed with the following units:

	CUSADM04A Manage a major project CUSSOU19A Manage production for sound recording
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: effectively identifying sound potential developing and producing a creative and appropriate sound concept
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation of a recording session oral questioning on issues in record producing relevant samples of artistic work with candidate's evaluation samples of project plans authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements relevant portfolio kit, tapes, CDs, videos, biographies of practitioner's work and process diary detailing work undertaken simulation of a recording session case studies and scenarios as a basis to discuss issues in record producing Competence in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. It is strongly recommended that the assessment process incorporates the following evidence gathering methods: review of comprehensive portfolios of evidence which demonstrate the processes used in developing the sound design concept through all stages of the process targeted questions aimed at evaluating the processes used in developing the sound design concept through all stages of the process to the finished product and subsequent evaluation These methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas. Assessment may occur off the job, on the job or in a combination of on and off the job. Assessment of this unit requires: practical observation of a recording session, either simulated or under workplace conditions discussion of the session supporting evidence of the candidate's work in the form of a portfolio of demo tapes and accompanying notes or process diary
Resource requirements	Simulated workplace activities must be undertaken using an appropriate range of relevant up to date equipment. Other resources may include: relevant instruments and/or equipment scores, charts or other written music resources other relevant participants such as performers and technical crew appropriate studio venue with adequate space and acoustic qualities

Key competencies	**Level**
Collecting, organising and analysing information	3
Communicating ideas and information	3

Planning and organising activities	3
Working with others and in teams	3
Solving problems	3
Using mathematical ideas and techniques	3
Using technology	3

Unit of Competency 8: CUSMGE02A: Develop self as artist

This unit covers the development of the technical, interpretive and expressive skills required to create, perform and/or direct music to a professional standard. It also deals with communicating effectively and working strategically and cooperatively to achieve planned artistic outcomes.

Element	**Performance criteria**
1 Acquire and develop technical skills	1.1 Plan goals to ensure the development of appropriate technical skills in playing, singing, composing and/or directing music 1.2 Work constructively with appropriate individual tutor, mentor or coach to plan and realistically assess the development of technical skills 1.3 Plan and develop strategies and personal practice to meet technical goals in composing or performing 1.4 Plan and use performance opportunities to develop and realistically assess the development of technical skills 1.5 Develop critical listening skills to effectively evaluate technical development against planned outcomes 1.6 Identify and use practice, feedback, discussion and evaluation opportunities to continuously improve technical skills 1,7 Explore and experiment with the capabilities of instruments, tools and technology to develop craft/technical skills 1.8 Identify and use relevant journals, magazines and other media to stimulate technical and professional development
2 Develop artistic and expressive skills	2.1 Discuss ideas with others and, apply knowledge gained to improve or inform own artistic skills and practice 2.2 Plan and realistically assess the development of artistic and expressive skills 2.3 Plan and use practice and/or work experiences to gain experience in a range of genres, styles and interpretations 2.4 Study the work of others to stimulate artistic and technical skills development 2.5 Identify and use relevant industry and other information sources to explore, develop and express artistic and creative ideas 2.6 Participate in performance events and/or master classes to stimulate and develop artistic practice
3 Develop own creative voice	3.1 Explore and experiment with new ideas in making and/or interpreting music 3.2 Where appropriate, take risks when developing creative ideas and interpretations 3.3 Explore new styles, artistic options and new ways of working 3.4 Explore and use technology where appropriate to practise originality and expand own creative work 3.5 Where appropriate, experiment with developing new interpretations by combining musical elements styles using expressive techniques
4 Evaluate own work	4.1 Seek and apply constructive criticism from others to improve artistic work 4.2 Assess and analyse musical elements, styles and techniques 4.3 Evaluate own work against planned artistic, creative and career goals

Element	**Performance criteria**
1 Acquire and develop technical skills	1.1 Plan goals to ensure the development of appropriate technical skills in playing, singing, composing and/or directing music 1.2 Work constructively with appropriate individual tutor, mentor or coach to plan and realistically assess the development of technical skills 1.3 Plan and develop strategies and personal practice to meet technical goals in composing or performing 1.4 Plan and use performance opportunities to develop and realistically assess the development of technical skills 1.5 Develop critical listening skills to effectively evaluate technical development against planned outcomes 4.4 Where relevant compare own work selectively and realistically with the work of others to extend own practice 4.5 Continuously evaluate own work to expand technical, creative and expressive range 4.6 Adjust work processes and practice as necessary to improve artistic, creative and/or commercial outcomes

Range of variables

Variable	**Scope**
Strategies for developing self as artist may include:	working effectively with tutor participating in professional development and other learning opportunities undertaking training courses practising systematically participating in relevant groups or associations experimenting with own music making listening critically to a wide range of live and recorded music communicating with peers being involved in a range of relevant music making activities
Musical elements include:	pitch melody scales harmony chords duration rhythm beats time signatures tempi note values dynamics volume marks indicating volume shape phrasing sound and silence dynamic contrast unity and contrast in articulating the musical elements timbre or tone colour texture

	attack acoustics form
Listening may include:	instrument tuning listening to adjust the sound in performance aural imagination to develop interpretation aural memory, including rhythmic, melodic, harmonic, textural and timbral elements of music pattern and sequence recognition recognising music systems and practices chords, keys in tonal or other musical systems reproduction of sequences from memory
Developing own creative voice include:	developing repertoire and knowledge analysing and researching music relevant to selected area of specialisation using musical forms, systems, practices and customs reproducing existing music making musical compositions available to be reproduced for performance
Developing artistic and expressive skills may include:	applying proficiency in using instruments and musical elements applying technical control to create or produce sound using techniques to control and enhance music making applying compositional techniques

Evidence guide

Underpinning knowledge and skills	Assessment must include evidence of the following knowledge and skills:
Professional development	locating information and using resources to develop self as artist discerning and listening to the advice of appropriate colleagues, experts and audiences
Music craft	demonstrating and applying of chosen genres and their musical forms and conventions in performance, direction or composition applying appropriate styles or interpretation relevant to area of specialisation using appropriate chords and scales, forms, textures or other elements of musical organisation in music work observing and using performance/composition protocols and customs setting down music for performance or interpreting music in performance applying and extending appropriate repertoire knowledge understanding relevant musical terminology
Listening	recognising intervals, chords, scales and chord progressions understanding appropriate intonation, dynamics, phrasing, rhythm and expression to produce the required sound listening critically to the creative work of others to inform own work listening critically to, and adjusting, own creative work in composition, private practice, rehearsal and/or performance to achieve the required sound
Technical	planning practice to improve technical facility in performance, improvising, directing or composing music using the body appropriately in movement and breathing to enhance

	musical performance
Creative	demonstrating originality and innovating approaches in the performance, interpretation and/or creation of music extending musical boundaries for self and audience listening critically to continuously evaluate and adjust the musical work using individual discrimination to interpret musical style appropriately, or consistently, in intonation, rhythm, attack, phrasing, timbre, dynamics and tempi being open to and experimenting with developing new interpretations and ways of combining musical elements, expressive techniques and styles using unfamiliar styles to extend creative practice exploring and using technology where possible and appropriate to extend creative practice taking creative risks to develop individual voice
Expression	phrasing and shaping music appropriately understanding and using appropriate musical nuance
Presentation, communication and promotion	using appropriate posture, dress and other performance protocols matching repertoire with audience or identified target audiences engaging the audience in the work demonstrating effective interpersonal skills maintaining an appropriate standard of presentation in all promotional materials finding appropriate leads to create strategic opportunities to promote own work
Planning and organisation	clarifying roles working within established budgets and timeframes to achieve planned outcomes matching work commitments to best career outcomes keeping an accurate and up to date diary of work commitments demonstrating punctuality in all work commitments using time management strategies to set priorities developing systems for required documentation such as financial, taxation, insurance, copyright and other legal requirements and business plans
Linkages to other units	This unit has strong linkages to, and may be assessed with, the following units: CUSMPF04A Prepare self for performance CUSMPF11A Perform music as part of a group CUSMGE01A Maintain self or group in business
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: taking responsibility for own artistic and creative development
Method and context of assessment	Evidence of competence may be obtained through a variety of methods including: observation oral questioning process diary discussion relevant samples of artistic work with candidate's evaluation authenticated details of relevant courses or training sessions authenticated details of relevant artistic and/or commercial achievements relevant portfolio kit, tapes, CDs, videos, biographies and

	promotional photographs promoting practitioner's work simulation case studies as a basis for discussion of issues, methods, and strategies for artistic development Competency in this unit may need to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence. The assessee must nominate the area of music specialisation to be assessed. It is strongly recommended that the assessment process incorporated the following evidence gathering methods: review of comprehensive portfolios of evidence which demonstrate the processes used in developing the creative concept through all stages of the process targeted questions aimed at evaluating the processes used in developing the creative concept through all stages of the process These methods should assist the assessor to evaluate the creative process followed by the candidate in generating, evaluating and realising creative ideas. Assessment may occur off the job, on the job or in a combination of on and off the job. Assessment of this unit requires evidence of practical and creative skills in the nominated area of music specialisation. These skills muse be assessed directly from a portfolio of the assessee's work and a viva or direct assessment of musical performance, music repertoire planning and strategic artistic development.
Resource requirements	Competency in this unit should be assessed using all of the relevant resources commonly used in the development of artistic skills relevant to the candidate's genre, style and mode of expression. Specific assessment tools may include: career development plans copies of OHS, copyright and licensing regulations relevant instruments and/or equipment where musical performance is required for demonstration for assessment appropriate assessment venue where musical performance is involved work samples to allow and prompt discussion other relevant participants where practical ensemble work is being assessed appropriate venue with adequate space and acoustic qualities where music performance is being assessed

Key competencies	**Level**
Collecting, organising and analysing information	2
Communicating ideas and information	3
Planning and organising activities	2
Working with others and in teams	2
Solving problems	3
Using mathematical ideas and techniques	-
Using technology	2

Appendix D: Participant consent forms

Letter to prospective participants

Dear Colleague,

I am writing to ask you if you would agree to an interview to assist my research on the above topic. It would require one hour of your time, at a time and location that suits you. I will follow your instructions on whether you wish your contribution to be confidential or to be acknowledged in my thesis and whether you would agree, or not, for the interview to be audio tape recorded.

My PhD research at the University of Technology Sydney (UTS), is considering how well competency based training and assessment is (or is not) suited to the creative aspects of music. I hope that by drawing on the experience and knowledge of established music educators, practitioners and experts such as yourself that more knowledge will gained about the role of competency based training and assessment in teaching and assessing music students at all levels of music study, but especially for those aspiring to a career in the music industry. I also hope to generate a useful model for developing creative skills.

You will find below the questions that I would like to ask you and other practitioners being interviewed. I will ring you in a couple of days to ask if you will take part and, if so, to arrange the interview. I would greatly appreciate you taking part in this project. Should you agree you can withdraw at any time without explanation.

I am attaching a copy of the consent form approved by the UTS Ethics Committee and will ask you to sign a copy at the interview. Eight competency standards selected from the National Music Industry Training Package are also attached. They are some of the standards intended to cover vocational training for musicians aspiring to a career in the music industry. I would appreciate any comment on creativity that you might offer in relation to any of those standards, whether covered in my questions or not.

Should you wish to verify this email, or ask questions of the university, you may contact my supervisor at UTS, Professor Paul Hager. He can be contacted at the faculty of education on 9514 3826, or email Paul.Hager@uts.edu.au.

Kind regards

Joy Sotheran
302 Sailors Bay Road
Northbridge NSW 2063
Ph 9958 0564
Email joy@dataotganisation.com.au

List of questions for participants

Proposed questions. Please let me know if you have any comments about the questions.

1. What is creativity in music and what is its importance?
2. How do you define the outcomes and conditions for developing creativity in music?
3. Are there creative and non-creative aspects to being a musician and if there are, can or should they be treated differently in training and assessing students aspiring to a career in the music industry?
4. How is creativity important in composing, improvising, performing and musical direction and / or studio production and how would the role and importance of creativity be described for any or all of these?
5. What were the best features of your own musical training in relation to developing creativity?
6. How have you developed your creative skills, and / or, those of your students? Can you say what strategies you have found most effective?
7. What aspects of your training for musical creativity would you like to have improved? Can you say in what way?
8. What advice would you give to educators about teaching and assessing the creative aspects of music for musicians aspiring to a career in the music industry? You may wish to consider the following:
    - Relative importance of identifying and specifying the outcomes for the following different areas of music activity:
        - Composing,
        - Performing
        - Improvising
        - Directing live performance
        - Producing a recorded performance
        - Teaching composition
        - Teaching instrumental and / or vocal performance
    - Specifying appropriate creative outcomes
    - Strategies and training interventions required to best achieve the outcomes
    - Role of the tutor in supporting the development of creative skills of aspiring music industry practitioners
    - Role of the aspiring practitioner in developing creative skills (for example, evaluating work, developing strategies and processes to expand creative skills etc)
    - Evaluation and assessment of creative processes and products
9. Would you comment on the creativity items in any of the eight music standards attached, for their relevance to training and assessment for the development of creative skills for succeeding in the music industry. Please comment of any or all of the eight standards attached.
10. Are there any other comments that you wish to make in relation to:

The nature of creativity for success in commercial music production

- The acquisition of creativity in music
- The relative degree of creativity across the eight standards, ie is it more important in some than in others and if so in what way
- The capacity of the competency approach to developing creativity, with particular reference to the attached competency standards, ie, to what extent can each one support training and assessment for creativity in music
- What changes you consider necessary to increase the capacity of any of the attached standards in developing creativity
- Any other comment.

Participant consent form

CONSENT FORM - STUDENT RESEARCH

I _____ *(participant's name)* agree to participate in the research project, "Embedding Creativity in the Competency Paradigm: A Music Industry Case Study", being conducted by Joy Sotheran, for her PhD degree at the University of Technology Sydney (UTS). I understand that the purpose of this study is to consider how well competency based training and assessment is suited to the creative aspects of music.

I understand that my participation in this research will involve an interview with Joy and that the interview will be audio tape-recorded. This will take one hour of my time and will be done at a time and location that suits me. I have also been informed of the nature of the questions to be addressed in the interview.

I am aware that I can contact Joy Sotheran, by email at joy@dataorganisation.com.au or her supervisor Professor Paul Hager at the Faculty of Education, UTS, on 02 9514 3826, or email Paul.Hager@uts.edu.au. If I have any concerns about the research. I also understand that I am free to withdraw my participation from this research project at any time I wish and without giving a reason.

I agree that Joy Sotheran has answered all my questions fully and clearly. I agree that the research data gathered from this project may be published in a form that does not identify me in any way.

_____ ____/____/____

Signed by

_____ ____/____/____

Witnessed by

NOTE:

This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer, Ms Susanna Davis (ph: 02 - 9514 1279). Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

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