Supporting students’ transition from primary school to high school using the Internet as a communication tool: building the community.

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This paper reports on a transition project where the Internet as a communication tool was used to facilitate interactions between primary school and high school students. The qualitative case study involved capturing the online interactions of the students and teachers as well as the use of questionnaires. Results of the study demonstrate that the use of the Internet allowed participants to engage in interactions that provided useful information to the primary school students as a way of preparing them for the transition to high school. There were a number of challenges identified in using the Internet to facilitate interactions which include identity and architectural challenges.

Keywords: primary education; school transition; community; Internet

Introduction

The move from primary school to high school or middle school can be a daunting process for many students and has been documented over a number of decades (Mitman & Packer, 1982; Wassell, Preston & Jones, 2007). The community in which they have been nurtured for the last seven years or eight years is no more. Many of their friends who they have grown up with will go to a number of different schools. The teachers they have come to know will be replaced by strangers. The familiar classroom routine, where, for much of the time they have had one teacher, will change and they will instead move from subject to subject and have many teachers, often with different expectations to those of their primary school teachers (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan & Maclver, 1993). Many of the procedures and processes with which they have become familiar will be changed. Many of the rules and the expectations of the new school will most likely be different to the ones they learnt over seven or eight years of primary school.
Many schools now recognise that the move from primary school to high school is an important transition period for students, and as a result, build in transition experiences for students in their final year of primary school. This is done in conjunction with both the primary and high schools in a number of different ways.

Traditionally, students have physically gone from their primary school to a high school in order to participate in organised activities. These visits are often one off and do not provide much information for students. The advent of the Internet now means that there are many new possibilities in the way transition projects are designed and implemented. To date, there has been limited research on the use of the Internet as a communication tool to help facilitate the transition from primary school to high school.

In this article a transition project which incorporated the use of the Internet to enable students at both a primary school and high school to interact with each other over a period of two months is reported on. The research questions were- can the use of the Internet, as part of the transition project, support students as they prepare to move to high school? What are the benefits and challenges in including the use of the Internet? Benefits include students are able to engage in social, procedural and curriculum content as they interacted with each other to build a community of learners which would not have been possible without the use of the Internet over a period of two months. The challenges in using online spaces include social, architectural and identity issues.
This project was part of a larger study undertaken as part of study for the completion of a Doctor of Education degree. The purpose of the study was to investigate how the Internet might contribute to the learning environment of students in upper primary school in grades five and six. The study was conducted over the space of one year and data were collected through audio and video recordings in the classroom, as well as by capturing the online interactions of the students both in school related activities and during home-based activities. The analytical framework for the study is based on a community of practice/sociocultural model.

In using a social framework, based on sociocultural theory and community of practice concepts, it is shown here that the use of the Internet supports primary school students to be apprenticed into practices of high school through their interactions with their more experienced peers in high school. It is through these interactions that a community of practice is formed.

**Transition- lessons from the literature**

There have been a number of studies conducted in many countries looking at students as they move from primary school to middle or high school covering a wide range of issues. Generally the research shows that providing a transition program to high school can greatly benefit students (Cognato, 1999; Hertzog, & Morgan, 1999). Here the focus in this literature review is on procedural, social and curriculum areas as well as the importance of community.

Much of the commentary and research examining social aspects on transition tends to focus on peers. One focus is on the importance of having friends to support each other
during transition (Kurita & Janzen, 1996) due in part to a disruption of their social networks (Wigfield, Eccles, Iver, Reuman, & Midgley, 1991). Including the Internet in a transition program allows primary school students to develop social networks with high school students who might then provide support the following year. Other areas related to the social aspects of transition include bullying (Zeedyk, Gallacher, Henderson, Hope, Husband, & Lindsay, 2003) and peer conformity (Eccles & Wigfield, 1997). Gibbons and Telhaj (2006) focus on what they term peer-groups. The social relationships between students and teachers have also been examined (Wigfield, Eccles, Iver, Reuman, & Midgley, 1991). There is limited research examining how social networks might be developed during a transition project between students at the high schools and students at the primary school.

There has also been a variety of findings by authors under what I term procedural content. For example, Johnstone (2001), in examining rural students’ transition looked at what she called ‘Adaptation to Organisational Culture’ and found that the majority of students were most concerned about school size and layout as well as the teachers they would have. School size and lay out was also commented on by a number of other authors (Davies, 1986; Galton & Willcocks, 1983). Providing sustained time for students to interact via the Internet about teachers and school life in general can provide primary school students with a much greater understanding of high school expectations and regulations and potentially decrease anxiety they may be feeling.

Curriculum or academic issues have been focused on with other aspects in a number of different studies. Many students have academic concerns as they move into high
School (Berndt & Mekos, 1985). As a result of students’ uncertainty, the academic achievement of students has been shown to drop as they enter high school, (Alspaugh, 1998; Rosenblatt & Elias, 2008; Watt 2000) aspects of transition tends to focus on academic adjustment (typically a drop in standards) as students move from primary to high school. Providing a curriculum subject for students to focus on over a number of weeks via the Internet combined with a school visit allows primary school students to engage in much greater detail with the curriculum which can provide them with clearer expectations of learning at high school. This can also provide useful information for teachers so that curriculum in both primary school and high school can be designed so there are clear links for students.

A number of authors have examined the importance of high schools creating a sense of community for the incoming students (Anderson, Jacobs, Schramm and Splittergerber, 2000; Epstein & MacIver, 1990; Weldy, 1991). Finn's (1989) identification-participation model provides ways of understanding participation in school communities. “According to the model, students must see themselves as a worthwhile member of the community (identification). In addition, however, they must be involved in the activities of the community (participation)” (Anderson et al, 2000, p. 336). Creating a transition program for primary schools students can also foster a greater sense of community through the activities they complete which then might flow through to the following year.

Much of the literature examined here focuses on perceptions of students, teachers and parents rather than focusing on specific transitional programs. Little of the research is from an ethnographic viewpoint; instead much of the research draws on large
populations and generally uses surveys or other quantitative methods. To date, there has been very little research examining the use of networked computers as part of the transition process.

**Theoretical framing**

The framework used to analyse the data is situated in the notion that learning is a socially contextualized activity. This framework includes aspects of communities of practice and sociocultural theory literature.

The term, ‘communities of practice’ was coined by Lave and Wenger (1991). The focus of their work draws on a sociocultural view of learning where importance is placed on the idea that learning, be it formal or informal, is always situated within a particular community. When the apprentice first joins this community, he or she is on the periphery of the community and is gradually apprenticed into the community through interactions with more experienced members. One of the important elements

One of the important aspects that that helps build and hold a community together is social capital. “Communities that are rich in social capital tend to communicate well, their members spend time together, they help each other, and members contribute to the collective common good” (Preece, 2004, p. 297). It is through shared goals, norms and shared values that social capital is developed. Allowing students to interact online over a period of two months allowed them to develop this social capital in a more in-depth way than would have been possible with only one or two visits to the school.
An aspect of sociocultural theory used in this framework is the concept of expert and novice (Vygotsky, 1978). A child’s cultural development appears first through interactions with others and then within the learner’s own independent actions. This process of internalisation is gradual, with the expert guiding the novice and taking responsibility for much of the problem solving. As the novice becomes more experienced there is a period where the problem solving is shared until the novice is finally able to act independently. At this point, the novice has internalised the learning process, and is now an ‘expert’.

In considering the role of the high school students, the notion of a more experienced peer rather than expert is used drawing on Gibbons and Telhaj (2006) notion of peer-groups. They state: “The term ‘peer-groups’ usually indicates social interactions of children or young adults with people of similar age” (p. 2). The term expert cannot be applied to grade seven students as they have limited expertise in what it means to be a high school student.

The concepts of apprentice and more/less experienced peer have some commonalities. In this paper the year six students are being apprenticed into the secondary high school community through their interactions with the year seven students, who are the more experienced members. In addition to this, there are the teachers and myself as the researcher who are acting as ‘experts’ in the process. There are therefore a number of layers of experience at play.
The study

For the study, a qualitative methodology was used, drawing on aspects of ethnography and case study methods. Data were collected through a variety of methods included observations, field notes, interviews, discussions with teachers and by recording online interactions.

The study was conducted over 12 months with a grade six class consisting of 24 students and their teacher. Here the age range of the students was 11 to 12 years old and students where in their final year of primary school. The class was located in a suburb of Sydney, Australia. Many of the students had access to the Internet at home and used it for interacting. This class was selected for the study as it contained networked computers and the teacher wanted to further explore the Internet as a communication tool in the classroom. Nine curriculum projects were implemented in the classrooms incorporating the use of the Internet. One of the projects was the high school project which is the focus of this paper and is described later in this section.

In gathering the data at school, visits occurred once a week for the whole day where students were recorded working on various curriculum tasks that involved the use of the Internet. In attending the school days I took on the role of teacher/researcher where I worked with the teacher in the classroom with students both in a whole class setting and in groups. The students and teachers were also interviewed about their experiences and views in using online interactive tools. The students were interviewed at the start of the study individually to get a sense of how much they used the Internet for interacting and whom they interacted with. They were interviewed
throughout the year in groups to discuss issues that arose through the various projects that were undertaken.

A grounded theory approach was used in order to identify themes in the data. To begin, all the data were transcribed so that it was in a written format. It was then coded. The coding of the data came about through reading and transcription of it. In coding the data some categories that emerged were on the content of the students’ interactions. The five types of interactions that emerged from the data included:

- the technical content;
- the navigational content;
- the procedural content;
- the social content and;
- the curriculum content.

The content areas that are focused on in this paper include the social content, procedural content and the curriculum content.

**The High School Project**

The High School Project was designed to allow real-time interactions to occur. It was organised so that the grade six students and a grade seven group consisting of eight students at the local high school (named Ramgate High School in this study) could interact with each other on a weekly basis using a chat room.

The Deputy Principal at the high school was approached early in term three with the idea. A meeting was later held with the Deputy Principal, the librarian (who would be
in charge of the high school students at the time they were interacting), the computer coordinator, the drama teacher and myself. The Deputy Principal chose drama as the focus subject because he felt that it was a subject that could be shared more easily via the Internet and interest in the project was expressed by the drama teacher. The high school students came from the drama class being held at the time the Internet sessions were conducted.

The objective of the project was that students from the primary school and high school would share information about high school life. The intention was to familiarise the primary school students with some of the students and teachers at the high school so they would feel a part of the school community the following year.

The educational outcome of the project was that the students would undertake an activity related to Drama. A play was chosen for the students to work on together, named Fossils (Aston, 1995). This play is about conflict and conflict resolution. The primary school students were to learn one or two scenes, which they would then perform at the high school with the grade seven students in the last session. The grade seven students would also perform their scene to the primary school students. The purpose of interacting online, in relation to the drama component, was to provide the year six students with an overview of the play, as they did not have the opportunity to read the whole play. There was also time set aside, as indicated in the overview below in Table one to discuss different roles in a drama production such as acting, directing, lighting etc. and for the students to practise the play.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>ACTIVITY</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Students introduce themselves.</td>
</tr>
<tr>
<td>2</td>
<td>First question and answer discussion. Students from primary school pose questions. High school students also have the opportunity to share their ideas with the primary school students.</td>
</tr>
<tr>
<td>3</td>
<td>Begin work on collaborative project. Discuss the play and get an overview.</td>
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<tr>
<td>4</td>
<td>Start to look at the different characters in the play and discuss them.</td>
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<tr>
<td>5</td>
<td>Discuss issues of conflict and conflict resolution, which are central themes of the play.</td>
</tr>
<tr>
<td>6</td>
<td>Discuss the different roles in drama.</td>
</tr>
<tr>
<td>7</td>
<td>Discuss week 8 visit, times, places, expectations. Also allow students to have free interactions.</td>
</tr>
<tr>
<td>8</td>
<td>Primary school students visit high school, perform the play and have tour of school, participate in a class lesson and have lunch.</td>
</tr>
</tbody>
</table>

Table 1: High school lesson overview

The Internet sessions were structured so that 40 minutes was set aside each week for the students to interact with each other online. There were eight lessons scheduled for term four. All of the lessons except for the one in week eight involved the students interacting online. The last two weeks of the school year were not included, as end of year school functions took up too much time.

The students go online

In providing Internet access as part of the transition project, it was found that students benefited by being able to develop social, procedural and the curriculum content.
understanding in a more in-depth way than would have otherwise been the case without the use of the Internet.

The social content

Social content appeared in two situations; where students shared hobbies and interests with each as a way of getting to know each other and secondly, where students organised contact outside of the school environment. In the following examples, the text is as it appeared on the computer screen except that each student’s name is bold and I have added the grade of each student next to his/her name to assist in reading of the data. In the first example, the interactions ranged across a variety of different topics as the examples below demonstrate:

**Annie [year 6]**

*Hi Helen, How R U and your pets going?*

**Helen [year 7]**

*hi annie my pets are going good*

**Evil SC^wTR [evil scooter][year 7]**

*What music do you like??*

**Jack [year 6]**

*I LIKE KORN GRINSPOON AND METALLICA MATT LIKE CHILI PEPPERS GOOD CHARLOTTE AND THE VINES* [these are the names of music bands]

All of the students involved in the High School Project chatted socially, some more than others. This finding is consistent with results from research which indicates that
personal talk takes up a large proportion of students’ interactions online (Britsch, 2001; McCreary, Ehrich, and Lisanti, 2001). Importantly the needed social support which helped to develop social capital came from peers.

In the second situation, students shared emails with each other so they could communicate with each other outside of school as the following extract illustrates:

**Jack [year 6]**

ANDREW WATS YA EMAIL

**Andrew [year 7]**

beXXXXX@hotmail

**Jack [year 6]**

THANX ANDREW MINE IS jack@hotmail....

In the extract above, the students are negotiating to move beyond their immediate school-based community of practice to participate in a social community online. As Wenger suggests, we all belong to a number of communities of practice (n.d). Here it is shown that the facilitating access for students provided them with a resource which they could use to move to another online community of practice. Here students were participating in a number of overlapping communities of practice. As the research project did not examine the learning of students into the following year it is not possible to know if these new and overlapping communities of practice carried over into the following year.
The procedural content

In assisting students to understand high school life, it was important that they had the opportunity to discuss some of the rules of the school and expectations of teachers in understanding procedures. During week two the students were encouraged to discuss some of the school related issues. There were a number of interactions where the high school students shared their ideas with the primary school students:

Andrew [year 7]

*do u have any questions bout skool Jack*

Jack [year 6]

*IS IT STRICKTER AS IN TEACHERS*

This concern expressed by Jack has been found in many other studies looking at students’ concerns as they move into high school. Brown and Armstrong (1985) for example, found that a concern over strict teachers was one of students’ top concerns.

The grade six students also expressed interest in possible punishments in high school as the following extract shows:

Kate [year 6]

*what happens if you forget your homework do u get extra?*

Tiffany [year 7]

*kate we dont get extra homework we just get a mark next to our names in the teachers roll call if we get3 marks we get detention*
The above extract illustrates that the students were concerned about rules and consequences, which was a factor also uncovered by Scott, Rock, Pollack and Ingels (1995) who found that students believed their teachers would stricter and rules more strictly enforced in High School. In creating a community of practice, the year six students were able to learn about the system that was in place at high school which would allow them to be more prepared for the following year.

The correct way to behave was also modeled during the online interactions. In the following extract, two of the year six boys start using language that could best be described as street language which is picked up very quickly by one of the year seven students:

**Jack = Matt [year 6]**

U GUYS IN MARSDEN R U HERE DAMMIT

**Adrian [year 7]**

Alright then, now you listen people. U better say decent things or else...

**Adrian [year 7]**

Man, These people aren't serious Mr. Jones. Whoever types junk will get their red card on their first day. 3 red cards and You're suspended.

In the above example, the year seven boy is very clearly indicating to the year six boys what acceptable language practice is for high school. It is very clear to the year seven boy that the type of language marks the boys as outsiders in the community and to be members they need to adopt different practices. Here is an example of the building of social capital through the development of shared values.
The students were asked at the end of the High School Project about the content of their online interactions in relation to procedural content. The year seven students were also asked if they felt they provided useful information to the year six students. Below are some of the responses:

**Bianca [year 7]**

*We talked about High School in the first few weeks like what it was like and how many classes and what a red card was and things like the rules etc. I think our information to the year 6's was useful to them as it gave them an idea of what there up for when they come here next year.*

**Scott [year 7]**

*In relation to high school life, i talked about teachers and the consequences of getting in trouble. I also talked about the rewards of being good.*

*Q: Do you feel that you were able to provide ideas to the year 6's that was useful?  
A: Yes, informing them about the consequences may help them realise what could happen to them if the did the wrong thing.*

**Kate [year 6]**

*I chatted about what was High school was like, what happens if you get into trouble. I learn't that high school is really different to primary. I think high school is fun.*

**Jake [year 6]**

*I learnt about rewards and punishments. I learn about red slips, green slips and suspension. If you get 3 red slips or something you get suspended.*
The students all indicated in their responses above that they discussed issues relating to procedural content. Of particular interest was the punishment system in the school. The role of collaborative interactions was able to facilitate knowledge-building as suggested by Tanaka (2005). The year seven students were able to act as more experienced peers and identify some issues based on their experiences that they felt would be relevant to the year six students. Here the Internet was able to facilitate the building of a community where interactions were more in-depth and sustained than would have been possible with a one off visit to the school. The importance of time is emphasised by Kirschner and Lai (2007) who state that communities of practice are “places where a process of social learning occurs between people with a common interest in a subject or problem who collaborate over longer periods of time to share and exchange ideas, find solutions and build knowledge” (p. 128). Whilst two months may not appear a long time it is a significant increase over traditional transition programs which can sometimes include a one day visit.

**The curriculum content**

One of the main reasons for providing online access through the class web site was so that students could learn from, and with each other when working with material related to the high school curriculum. As discussed earlier, the curriculum focus was on Drama. The purpose in doing this was to provide the year six students with examples of the type of work they would be doing the following year.

The students discussed various aspects of the play from week three onwards. The following set of interactions is from week three:
Jessica [year 7]

*do they think that their parents r old*

Keira [year 7]

*all of the teenagers think that their parents are fossils (old).*

Kim [year 6]

*because they have old rulz and they are boring, their not in our time*

Browyn [year 6]

*yeah this book is at least 5 years old*

As shown in the above examples, a number of the interactions between students were about the drama. Many of the students’ interactions in the weeks where the curriculum was the focus were about aspects of Drama. One of the key concerns of students in entering high school is related to their academic work (see for example, Berndt and Mikos, 1995). One of the aims of the project was that providing opportunities for students to engage in curriculum related work would lessen their concerns about academic expectations.

The students were asked at the end of the High School Project about the content of their interactions in relation to the play. Below are some of the responses:

Adam [year 7]

*in terms of the play we mostly talked about the characters we were going to play as well as the jobs we had*

Maggie [year 7]
when i first started the program i didn't know anyone but i started to chat with ashley
and hayley we talked about the play and who we were

Miky [year 6]
we mostly chatted about the play

James [year 6]
I found out that Adam was the director of the play and Liam was lighting and sound.

The students all indicated in their responses above that they discussed issues relating
to the play. The students were able to learn with and from each other about a number
of different concepts related to Drama. Throughout, where students’ interactions
related to the curriculum, it was sometimes the year six students who were more
knowledgeable and sometimes the year sevens students who provided information.
No one person or group was expected to be the keeper of knowledge, the roles were
shared and continually re-negotiated. In this community of practice there was
reciprocal interaction, mutual engagement, and shared enterprise (Wenger, 1998).

Challenges in creating the online community

There were a number of challenges in using the online spaces to help create the
community of learners. These challenges are what I term social, architectural and
identity related.

One challenge was to allow students to engage in social talk as well as curriculum and
procedural talk. This proved a challenge as the computers the primary school students
used were spread out over the whole school which meant I was not physically present
with a number of students. This created a challenge in keeping students on task
without them taking up too much social time. Whilst the students were generally focused on the task, they did spend more time on social aspects than was anticipated. As a way of helping the students focus on the task, from week three onwards when students logged in they were able to read a welcome message posted by myself. The week three message read:

‘Students, this week you are being asked to discuss the characters in the play. Think about what they look like, their personalities, how they relate to the other characters and any other aspects you might think of. One of the reasons for discussing the characters is so that you might be able to take on their characteristics when you put on the play. Mr Jones’

Posting a comment like the example above worked well and was adopted for the remainder of the online sessions. The year seven students also assisted in helping to keep the year sixes on task by focusing on the task. Perhaps it was because they were older or generally more knowledgeable or viewed their role as more important. Le (2003), in looking at older learners found also that more knowledgeable peers could direct group work and other students “were more task-focused and completed the task assigned more efficiently” (p. 11).

The architectural challenge involved the use of online spaces. To begin with there was one chat room for all students and myself but this proved to be far too restrictive. Students would post and message and have to wait for up to 10 responses or more. This waiting proved to be frustrating for the students. In order to overcome the overcrowding, three chat rooms were created. This solved the problem of
overcrowding but another problem was created where students then had to find each other and move to a suitable chat room. Students managed to do well as illustrated in the following chat extract:

**Adam [year 7]**

*jake go 2 room 2*

There were many instances during the six weeks where three chat rooms were used where students negotiated with each other to move to a different chat room although on some occasions they did lose each other online.

The third challenge involved identity. The nature of the chat rooms meant that user names could be changed very easily. When I tried to engage students in conversation some of them doubted it was me as indicated in the following extract:

**MR JONES**

*LOG IN WITH MESSENGER AT 7:30 THIS FRIDAY*

**AdRiAn [year 7]**

*this is not mr jones is it*

Not having a clear identity as teacher made it very difficult for me to act as an expert and provide focus questions for students. The way online interactions affect identity construction between students and teachers has also been found in a number of studies (e.g., Maher & Schuck, 2004: Schofield, & Davidson, 2003).
Another problem related to identity was that students would sometimes swap their own identity online. This created some conflict with some of the students and also made it difficult to know who was addressing who. Generally though, students were very sensible and maintained their own identity throughout the online episodes. It is important to note, and as emphasized here, that in order to build a community of practice that involves a virtual presence, not only do pedagogical, and organizational issues need to be considered, but also technical issues (Bonk, Hara, Dennen, Malikowski, & Supplee, 2000).

Conclusion

The Internet allows for new and overlapping learning communities to be created, which can provide support for students as they prepare to make the move from primary to high school. In creating a community of learners there were three benefits indentified. One benefit was that students were able to build social relationships which extended beyond the immediate community. Other benefits were that students were able to learn in detail procedures of high school life and learn about the curriculum by participating in a Drama activity. The in-depth and ongoing interactions would not have been possible without the inclusion of the Internet to facilitate interactions.

Whilst this project did not track students into high school the feedback from teachers and students involved in the project indicated that there was positive learning occurring and that the primary school students were able to gain insight into what it means to be a high school student. The author is planning a similar project where web conferencing technology which includes audio and video capabilities will be
incorporated and students will be interviewed in high school about their experiences once they have been there for a term. This should provide for a more comprehensive insight into the possible long term benefits of using the Internet as part of a transition project.

As well as the benefits the Internet provided, its use also presented a number of challenges that needed to be overcome which included keeping students on task, working with the architectural constraints of online spaces, and identity issues. New technological advances which allow for the use of voice and video mean different challenges will surface for schools that employ such technologies for transition programs. This accounted for, the use of the Internet as a tool for communication provides for the creation of communities of practice which can assist primary school students prepare for the transition to high school.

References


environment fit on young adolescents’ experience in schools and in families.


