**Assignment Three**

**Teaching and the Challenge for Learning**

***New Spaces and Places of Learning for Senior Secondary Students***

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Facing Big Questions in Education

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**Introduction**

A teaching challenge that I have faced in two schools recently in New Zealand concerns the absence of senior secondary students from classes. The senior secondary curriculum is structured in such a way that students are required to attend class to cover the necessary information to successfully pass their exams. In the past, students prepared for external exams that were scheduled at the end of each academic year. In recent years, NCEA is moving to include more internal exams that require students to be present in the lessons, often for consecutive multiple days, to complete the assigned examinations at specified times throughout the year. These specified times are not at set times, as the external exams are, but are flexible to times chosen by each subject coordinator in a school.

The schools that I have worked in have begun encouraging students to re-sit the internal exams if they wish to achieve a higher mark. The resulting situation for a teacher is that a growing number of students in Year 11 – 13 classes become increasingly difficult to manage in terms of adequately preparing them for exams and providing time for internal exams to be re-sat or re-scheduled. The teaching and learning that eventuates in many senior secondary classes resembles more of a juggling act of assessment dates fitted to student schedules resulting in real learning becoming a secondary focus.

In the two recent schools that I worked in I have found that a majority of students that miss class do so for legitimate reasons. Examples of personal reasons that senior students have for missing lessons include illness, appointments, child visitation sessions and travel. Examples of school-based reasons include 3-5 day subject-specific camps, leadership training, college visitations, exchange programs, and extra practices for school productions. Many students miss lessons due to involvement in weekly instrumental and voice training, tournament weeks, regional and national competitions, and sport and music camps. For the purposes of this report, ‘extra-curricular’ is defined as activities that are not part of the normal curriculum.

As a parent and a teacher of secondary aged students I have witnessed that extra-curricular activities are often beneficial to teenagers. Through participation, young people develop lifelong skills that enhance learning and personal development ([Eccles, Barber, Stone, & Hunt, 2003](#_ENREF_7)). Despite the benefits, conflict exists as is witnessed in the staff discussions where subject teachers often voice the need for students to be in class whereas extra-curricular interests are promoted requiring students to be out of class. Changes are often made to the school calendar each year but it is inevitable that conflicts continue to result. The aim of this report is to provide a way of thinking about learning at senior secondary school level that will help educators integrate academic and extra-curricular activities to best support students.

The following questions will be addressed in each of the four lenses outlined in the HPL framework. The first question in each set will be used in the analysis section and the second question posed will be addressed in the response section of this report. The How People Learn (HPL) Framework ([Bransford, Derry, Berliner, Hammerness, & Beckett, 2005](#_ENREF_6)) is a set of four overlapping lenses that will be used to analyze the learning environment at senior secondary level for the purposes of this report. This analysis will explore the learning environment at senior secondary level in regards to knowledge, learner, community and assessment centered. Evidence from literature and personal practice will be used to support the assumptions made in the four components of the framework.

Learner-centeredness

* What skills and attitudes do learners today have that impact on academic and extra-curricular expectations?
* How can the new technological toolset that is available today be used to support students with busy academic and extra-curricular commitments?

Knowledge-centeredness

* Is the required knowledge of a subject prioritized and easily accessible so that students focus on the important things to know and important skills to acquire?
* How can students take advantage of knowledge rich environments that exist today?

Community-centeredness

* Does the classroom learning environment support students who are active in the wider school community?
* How can a learning community at secondary level be developed so that students can successfully meet academic and extra-curricular expectations?

Assessment-centeredness

* Do assessment practices provide evidence that effective learning is really occurring?
* How can assessments be integrated into 21st century learning environments?

**Analysis of the Situation**

**Learner-centeredness**

*What skills and attitudes do learners today have that impact on both academic and extra-curricular expectations?*

After reflecting on my classroom practice and examining literature, I have come to realize that the world has changed and so have learners. According to Prensky ([2001](#_ENREF_21)) today’s students have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones and all the other toys of the digital age. Multitasking is a particular trait attributed to the millennial generation and has become a way of life. It is not unusual for students to be simultaneously participating in online chatrooms, downloading and listening to music, SMSing friends, watching TV and playing computer games, all whilst studying ([Frand, 2000](#_ENREF_8)).

I recently observed my teenage daughter use her science class notes to begin studying for a test. To clarify her understanding of how the heart pumped blood in the body she switched on the laptop and found educational YouTube videos explaining the topic in detail. Alexander ([2004](#_ENREF_1)) found that students who use laptops intensified multitasking by accessing information, using web tools and being creative anywhere and anytime. My daughter continued her revision by creating her own mind map using the web tool called MindMeister. Once she completed that task she texted her friend whom is her partner in a Business Studies assignment to confirm her email address so that she could send the draft proposal for their project to her for review. My daughter does not own a smart phone yet but I predict that in the near future much of her study and communication will be done using mobile technology.

Teenagers today are encouraged to be involved in activities and many expect that their teenage life will include a diverse selection of opportunities. The two schools in which I recently worked now feature sports academies and off campus outdoors centres as part of the schooling life on offer. I have seen students benefiting from participation in out of class learning. Youth in multiple activities have access to larger networks of school and non-school related adults who often invest a great deal of time and attention in these young people. According to Fredricks and Eccles ([2006](#_ENREF_9)), these denser social networks have a positive effect on the development of young people during adolescence.

As a parent, I encourage my daughters to participate in extracurricular activities because of the regular schedules, reliable supervision and guidance by adults, opportunities to develop skills and participate in team ventures. Jones and O’Shea ([2004](#_ENREF_12)) have noted trends in both education and training that show a shift in the need to offer greater flexibility of learning in relation to time and place to keep pace with the attitudes of today’s learners. As a teacher of involved students, I have witnessed young people challenged with managing their commitments to classroom and extracurricular activities. At the same time I have witnessed students demanding more flexibility in the way that they study. They want to access their learning activities in ways that fit in with their commitments ([Massingham & Herrington, 2006](#_ENREF_14)).

**Knowledge-centeredness**

*Is the required knowledge of a subject prioritized and easily accessible so that students focus on the important things to know and important skills to acquire?*

During the middle of the 20th century learning referred to the acquisition of knowledge. Students received and processed information dispensed by others ([St. George & Bourke, 2008](#_ENREF_23)). The current external NCEA exams relate to this type of learning as students receive and process information transmitted by the teacher or learning materials with the ultimate goal of successfully completing subject exam papers. I observed, as did Massingham and Herrington (2006), that students are particularly interested in information that will help them with assessment tasks or exam questions. Some of the students that I taught regularly accessed information regarding subject content on exams from the NCEA website and study books. The students were keen to practice exam questions in order to prepare for the external exams.

Both schools I recently taught in were beginning to develop study materials via the school website to assist students with exam preparation. The availability of study materials for each subject was dependent on the faculty responsible for the subject. Although I wanted to provide information to the students regarding exams I lacked the expertise of working with the learning management system as it was newly introduced to the schools that I was working. Jones and O’Shea (2004) found that some staff feel that their jobs are threatened by technology and while others are unable to cope with the technological changes. I observed that this impacted on the availability of knowledge being provided to students outside of the classroom.

Since the middle of the 20th century, learning has shifted from acquiring knowledge to constructing knowledge. Learners have moved from being passive receivers of information to active participants in achieving learning goals ([St. George & Bourke, 2008](#_ENREF_23)). In recent teaching experiences this shift in learning has been more visible in younger students. By the time the students reach NCEA exam level, learning resorted back to acquiring knowledge to pass exams. This brings into question whether the current exam system is meeting the needs of today’s learners.

**Community-centeredness**

*Does the classroom learning environment support students who are active in the wider school community?*

In the two recent schools that I have taught in I observed that many students involved in extra-curricular activities showed evidence of belonging to the wider school community. There is evidence from several studies suggesting that involvement in constructive, non-academic activities both at school and in the community facilitates school engagement, academic achievement and positive social development during adolescence and into the early adulthood years ([Eccles, et al., 2003](#_ENREF_7)). Schools, however, need to offer ways to facilitate involvement ([McNeal, 1999](#_ENREF_19)) in these activities so that academic success is not minimized.

Although studies show that extra-curricular involvement encourages community and academic involvement, I found that this was not occurring effectively at class level. I struggled to build and maintain an academic community of learners with senior students that missed class due to extra-curricular involvement. As part of the teaching staff I found the challenges of managing schedules of multiple students difficult. There was not consistency in all students being present on set class dates. This disrupted the learning that was reliant on class attendance.

The use of new educational technologies started in the 1980s with the inclusion of computers in the classroom ([St. George & Bourke, 2008, p. 137](#_ENREF_23)). While teaching at the last two schools, I felt that the use of educational technologies could have been used to facilitate students who were out of class due to involvement in extra-curricular activities. McMahon and Pospisal (2005) characterize today’s students as having an information technology mindset and prefer a group-based approach to study and social activities that now occurs both in the physical and virtual world.

In both schools that I recently taught in I witnessed the encouragement by management to incorporate more use of ICT that had the potential of developing an academic community of learners. Unfortunately, only one school had a small percentage of teachers actively engaging in improving the learning in the classroom through the effective use of ICT. According to Anderson, Brown and Murray (2008) individual teachers generally use only a small number of applications and the use of ICT does little to support the changes to the spaces within which students learn.

The second school that I took a relieving position in had a computer lab in the mathematics block when I arrived but the room was locked and the key was lost. Once entry to the room was made possible it was discovered that most of the computers were not in working order. I had a projector to be used with a laptop in my classroom but was not permitted a laptop as a long-term reliever. I did bring my personal laptop to school to be used in the lessons but as it was shared amongst thirty students it provided little opportunity to senior students for collaborative learning. I was unable to provide a learning community that could be accessed in and out of class that would have benefited the active senior students.

**Assessment-centeredness**

*Do assessment practices provide evidence that effective learning is really occurring?*

Massingham and Herrington (2006, p. 98) stated that if our assessment practices rely on replication of factual information it is easy to see why some students will not engage. In both schools that I taught I found that as the year progressed the students became less engaged in academic life despite the fact that these students continued to be involved in extra-curricular activities and reaped many benefits through such involvement. I felt this was a failure in my teaching and the system in which I was working. Assessment is a focus of senior students’ educational lives yet I felt that assessment needed to be integrated with the tasks by which students learn and this learning was becoming more mobile. Massingham and Herrington (2006, p. 98) believe that the outcome of the learning task should become the assessment and not some far away facsimile, as is often the case with end of semester exams. I began to question if the current assessments were providing evidence of effective learning at senior level. McConnell ([2002, p. 73](#_ENREF_15)) believes in the benefits of self and peer assessment as this is an important part of the preparation for life and work. I began to wonder if assessment practices at senior level could be modified to incorporate the busy lives of senior students with a more active approach to learning and assessment.

**A Planned Response**

The previous analysis highlights the need to reevaluate the learning spaces and places of senior secondary students. When I return to teaching I aim to provide a learning environment that will be distinctively different than the one I have taught in the past. Beatty ([2004, p. 8](#_ENREF_3)) believes that technology does not inherently improve learning; it merely makes possible more effective pedagogy. I agree with Beatty ([p. 6](#_ENREF_3)) in that as an instructor, I must learn to think of myself as an engineer of learning experiences rather than as a dispenser of knowledge. In designing a planned response I have attempted to balance the four elements of Bradford’s *How People Learn Framework* to improve learning for senior secondary students actively participating in extracurricular activities and completing academic requirements.

**Learner-centeredness**

*How can I use the new technological toolset that is available today to support students with busy academic and extra-curricular commitments?*

Today’s technology can assist educators in creating a learning environment for senior classrooms. Students have a need for access, immediacy and flexibility. Anderson et al. (2008, p. 37) believe that new educational technologies expand the range and usefulness of learning spaces available for learning and that the landscapes within which students might learn have few physical or temporal limitations. This creates a challenge for me as a teacher to replace traditional instruction with the construction of learning environments where students take on an active role in their learning.

McMahon and Proposil (2005) conducted a research project aimed to explore how students belonging to the millennial generation used mobile laptop technologies as part of their work, study and social lives. The following response of one student shows that teaching and learning that is available both physically and virtually supports academic success:

I had to go to a few family events and I needed to finish some work – great coz they were so boring so had a good opportunity and excuse to do work. Also a relative had some advice to give and I could take all the files and programs to his house. ([McMahon & Pospisil, 2005, p. 8](#_ENREF_18))

Rajasingham ([2011](#_ENREF_22)) believes that communication and information technologies provide a connection between the learner, teacher, and knowledge. He sees this connection as both synchronous and asynchronous allowing learning to not be confined to the four walls of a classroom. The recent collaborative design of two wikis that I have completed has allowed me to incorporate podcasts, video clips and interactive feedback into course development that is not dependent only on synchronous learning. Learners can use laptop and mobile devices to interact with each other and the world around them. They can collaborate, navigate and connect information in a learner-centered environment ([Low & O'Connell, 2006](#_ENREF_13)) where the teacher coordinates the learning experience.

To ensure success in the learning environment, students need to have access to the necessary scaffolding to support their learning. Scaffolding does not need to be teacher directed. Current social software tools can be used so that instruction is learner centered by encouraging self-management ([McLoughlin & Lee, 2010](#_ENREF_17)). Scaffolding of essential skills and digital literacies will be needed as not all students will have the ability to use current technology for academic purposes. In creating a learning environment I will need to consider the goals of learners, ICT tools that will enable effective learning, and recognition that learner generated content is part of self-regulated learning.

**Knowledge-centeredness**

*How can students take advantage of knowledge rich environments that exist today?*

It is necessary to re-evaluate the role of content knowledge in learning environments to best support students today. McLoughlin and Lee ([2010](#_ENREF_17)) encourage me to move towards a social and participatory pedagogy rather than one based on the acquisition of pre-packaged facts. The learning environment that I facilitate and create for students cannot merely use knowledge that is dispensed at certain times and in certain places. McLoughlin and Lee ([2008](#_ENREF_16)) wrote in the *Three P’s of Pedagogy* that there is a need to expand our vision of pedagogy so that learners become active participants and co-producers rather than passive consumers of content.

As a teacher I am required to teach the curriculum to ensure that students successfully pass the exams set to gain the necessary qualifications. It is imperative that in order for students to take advantage of the knowledge rich environments that exist today that flexibility be allowed so that teachers can select among a full range of curriculum-based activities in each discipline based on appropriateness and advantage with reference to each student. Harris, Mishra, and Koehler ([2009, p. 413](#_ENREF_11)) argue new curriculum activities to assist in learning need to evolve as new technologies are developed, new ways of representing content are designed, and new ways of helping students learn are created.

**Community-centeredness**

*How can a learning community at secondary level be developed so that students can successfully meet academic and extra-curricular expectations?*

My definition of a learning community has been transformed by the inclusion of the Internet. Anderson, et al. ([2008](#_ENREF_2)) maintain that when the Internet enters the classroom, the potential exists for students to leave it and learn at anytime from anywhere. Technology can provide the tools for creating authentic learning environments and fostering the communication channels that support the social construction of knowledge and understanding ([St. George & Bourke, 2008, p. 137](#_ENREF_23)). One disadvantage in the past of students missing classes is that they break away from the community of learners. It is necessary to redesign the learning environment in such a way that feedback on performance, opportunities for reflection, and activities involving collaboration ([Steeples, Jones, & Goodyear, 2002](#_ENREF_24)) are included in the networked environment that exists both synchronously and asynchronously.

**Assessment-centeredness**

*How can assessments be integrated into 21st century learning environments?*

Biggs ([1999](#_ENREF_4)) describes the task of good pedagogical design is where there are no inconsistencies between the curriculum we teach, the teaching methods we use, the learning environment we choose, and the assessment procedures we adopt. As a teacher I hope to create a learning environment where students are participatory creators of knowledge responsible for their own learning. If this is the case then it is imperative that assessment is integrated as a valued part of the learning process. Assessment needs to change from a focus on knowledge reproduction to a focus on knowledge transformation. ([Northcote, 2003](#_ENREF_20))

It is important to remember, particularly with senior students, that students will put the majority of their effort into assessment requirements. ([Northcote, 2003](#_ENREF_20)) Therefore, assessment at NCEA level needs to suit new millennial learners and be based on the features of online learning technologies. If students are actively involved in how, what and why then they perhaps will be more committed to their studies. McConnell (2000) believe that it is the collaborative learning and assessment process itself that signals to the students what form of learning is expected. Collaborative review and assessment helps students move away from dependence on teachers as the only source of judgment about the quality of learning to a more autonomous and independent situation where each individual develops the experience, know-how and skill to assess their own learning ([Boud, 2000](#_ENREF_5)).

**What I Have Learned**

I chose this topic because of the frustrations I have had in preparing senior secondary students for exams. In reading the online responses to the teaching challenge I posed it was apparent that others faced this difficult task. Lisa Woodhead (2011) wrote “My students are constantly out of the classroom, and although I fully endorse OTC learning, it does seem to inhibit their motivation once they return to the classroom.” I have sat with many parents and students in conferences wrestling with the expectations and the realities of managing effectively the academic and extra-curricular commitments of young adults today.

In researching this topic, I was able to find a wealth of information pertaining to the ways that tertiary education is meeting the demands of students with busy and nomadic lives. Joanna Gibson responded to my teaching challenge by concurring with me that more research is required to investigate the current flexibility needs of secondary students:

Tertiary institutions recognised some time ago that learning has to have some flexible elements to it and have been adapting their courses for a number of years now. It is about time this ethos trickled down to secondary schools. The hard part is how to do it, implement it well and make it work.” (2011)

I was reminded through the research that technology does not inherently improve learning; it merely makes possible more effective pedagogy ([Jones & O'Shea, 2004](#_ENREF_12)). When I return to teaching and attempt to develop a new type of learning community within my classroom to meet the needs of more mobile students I must base the design on sound pedagogy. This pedagogy needs to align itself with the four components outlined in the HPL framework ([Bransford, et al., 2005](#_ENREF_6)). The learning environment needs to be centered on and integrated with knowledge, the learner, the community and assessment.

I was reminded through the participation and collaboration of this assignment that people often use available technology but not all students use it effectively. Our world is becoming more mobile and more connected yet even the educators in the role of students in this course did not take full advantage of available technology for learning. Although the assignment was an individual one at the final submission stage, the research and reflection stages could have been more collaborative with greater participation from class members. This prompts me to carry out further research into the topic of creating flexible learning environments in relation to student motivation and necessary scaffolding needed to assist online lurkers who are reluctant to participate fully in an online community.

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