Breadth: the interdisciplinary experiment

An investigation of students’ expectations of The University of Melbourne’s Breadth subjects and the ‘Melbourne Model’.

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The University of Melbourne introduced far reaching and controversial changes to its program in 2008, when the Melbourne Model was introduced incorporating New Generation degrees and interdisciplinary Breadth subjects now numbering in their hundreds. The success and popularity of these has varied, and the aim of this study was to investigate student expectations of Breadth and whether these expectations have been met.

As outlined by the University of Melbourne (UOM) Handbook, “Breadth subjects allow you to gain knowledge and understanding across a broader range of disciplines, enabling you to develop insight, experience, and new ways of thinking in areas distinct from the main fields of study in your degree” (2015).

This thesis looks at the range of Breadth subjects the students’ have taken up to this point in time, and specifically at the second year Breadth subject, Sport and Education in Australia, a subject developed and taught over the last 5 years. The aim of the research was to determine whether student expectations were the same as those outlined by The University of Melbourne, and furthermore, whether these expectations were met and the desired outcomes achieved.

This was a qualitative study and relied on student feedback. The project is significant in the light of the recent introduction of the Melbourne Curriculum Model to the University of Melbourne in 2006, and was intended to ascertain the success or otherwise of the Breadth Program as a key element of the new curriculum model.

The study and related research suggests that Breadth has been successful and has met many of the intended goals of the UOM. Student responses are predominantly positive, with expectations having been met if not surpassed.
DECLARATION

This is to certify that

• the thesis comprises only my original work towards the Masters;
• due acknowledgement has been made in the text to all other material used;
• the thesis is less than 2200 words in length, exclusive of tables, bibliographies and appendices.

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CHAPTER 1: INTRODUCTION

1.1 Background to the Study

In 2008 the Melbourne Model, now known as the Melbourne Curriculum, was introduced at the University of Melbourne. It was greeted with much fanfare but was also subject to much scrutiny and public controversy. As a result of its implementation the university's 96 undergraduate courses were replaced with six undergraduate degrees. According to the Vice Chancellor, Glyn Davis, the Melbourne Curriculum was designed to align itself "with the best of European and Asian practice and North American traditions" (Growing Esteem, Retrieved 18 September 2014).

The Melbourne Model was modelled on the the Bologna Model, and numerous studies have examined this transformative process in tertiary education and the range of associated costs and benefits (Adelman, 2008; Cardoso, Portelo & Alexandre, 2008; Powell, Bernhard & Graf, 2012).

Breadth subjects were a key component of this model and were designed to allow students to "gain knowledge and understanding across a broader range of disciplines, enabling [them] to develop insight, experience, and new ways of thinking". (UOM Handbook, [http://breadth.unimelb.edu.au/]

While generalist degrees have long permitted students to study subjects from other faculties, the difference was that at the University of Melbourne in 2008, such subjects became compulsory. Seven years on and educators, the press and the public are yet to agree on the the wisdom of this move. (Davies & Devlin, 2007; Gilmore & Marshall, 2014; McCalman & Soeterboek, 2008; Potts, 2012; Simons, 2011).
1.2 Rationale and Context

In 2011, I began teaching Breadth subjects at the UOM, and like many people, I had only a vague understanding of this new ‘model’. As my first semester progressed I began to better understand the workings of Breadth and how if fitted into ‘the model’, but was intrigued to know whether students just saw it as an ‘inconvenient truth’ or a truly broadening experience. Having established the basis for my future research, I then set about recruiting subjects. In selecting a sample for my study, the key consideration was access to students. These were limited to those UOM students I had taught and had access to. My research was designed to look at the responses to Breadth subjects in general, and then responses to one subject in particular, Sport and Education in Australia (SEA). I accessed past students via the LMS subject enrolments, and those I identified as potential participants were predominantly second year students who had just completed the subject that semester, but also included third year students and other past students who had completed the subject in the years prior to that.

This study thus seeks to explore the success and efficacy of Breadth as a key component of The Melbourne Model, which according to the University’s own description ‘is one of the most exciting aspects of the University's undergraduate degrees’.

(http://breadth.unimelb.edu.au)

In the course of this investigation I undertook a Literature Review that provided me with a conceptual framework. This in turn allowed me to form a hypothesis for the basis of my exploration and guided my choice of research design. As many of these studies were qualitative in nature, and because of the research question being mooted, I chose to continue my research in that qualitative mode. Therefore, this was a qualitative inquiry looking at an individual’s view of the world, their beliefs and their perceptions, so in this sense it is highly subjective, which is quite typical of qualitative research. As I was exploring the meaning, structure and very essence of the lived experience for a specific group of people, predominantly second year undergraduates, my qualitative paradigm could best be described as taking a phenomenological approach, focusing on subjective experiences and personal meaning.

In light of the varied responses with which the introduction of the Melbourne Curriculum has been met, the focus for this thesis is an investigation of students’ expectations of The UOM’s Breadth subjects and the ‘Melbourne Model’. The university offers hundreds of breadth
subjects, so the students’ responses pertain to more than one Breadth subject which is important in order to gain a broad overview. However, I deliberately narrowed the focus to one specific Breadth subject, *Sport and Education in Australia* (SEA) as the sample case study. This Breadth subject originally targeted overseas students and those with an interest in sport and Physical Education. This subject was initially developed by Melanie Nash, as part of the Physical Education Program within the Melbourne Graduate School of Education (MGSE). It was modelled on a NSW unit of study taught by Richard Light; “Sport and Culture in Australia”. The design of this was explicitly guided by constructivist learning theory and it placed “the interpretation of experience at the centre of the learning process” (Light & Georgakis, 2008).

*Sport and Education in Australia (UOM)* was modelled on this course but has expanded and changed over the years to meet the changing needs of students within the constraints of the UOM system. It has morphed into a very different subject from its predecessor, and with my background in Psychology and Sociology, the focus has widened to examine Australian society and how this is reflected in sport. Sport is the lens through which the subject views a range of issues including racism, gender equality, disability, homophobia, commercialization and the role of the media in our lives. The role of the media in the commodification of sport has become central to the course over time and has shifted the focus quite significantly.

The fact that SEA is a subject I teach and coordinate makes the task more manageable and the investigation more fruitful. Utilising a survey aimed at past students, I developed a *case study* that narrowed the topic to this one specific subject, and to an in-depth examination of those students who took this subject. I was able to get enough responses to draw significant conclusions on Breadth and the Melbourne Model, and have discussed these results in the broader context.

As Breadth is a relatively new area, and has proven to be contentious for many, it seems ripe for investigation. Almost a decade on from its inception, a review of its value and efficacy as a core component of the Melbourne Model seems timely. Therefore, my aim is to survey a cross-section of students from across faculties and year levels, and over a period of three years, in order to assess how effective the UOM’s Melbourne Model has been in meeting its brief, at least in terms of the success of Breadth subjects.

Consideration needs to be given to my role in the process as researcher, particularly given
that I am the lecturer, tutor and co-designer of the subject in question. I am investigating Breadth in general, but focusing on one subject in particular, Sport & Education in Australia, which serves as the case study. My research role and my teaching role are closely intertwined and could impact on one another, an important acknowledgement given the conclusions drawn. I have been very careful to draw on the evidence in a balanced and even handed way, and while the statistics cannot lie, they are always open to interpretation. The research methodology is mixed methods as it combines the concurrent collection and analysis of both qualitative and quantitative data, the latter which is often seen to have more credibility in the eyes of the scientific community. I have been careful to ensure that my analysis is balanced and factual. There is also the question of using students as subjects which raises the question of a power imbalance. However, these were all past students and responses were completely anonymous.

1.3 Terminology and constructs/Definitions of key terms

In order to construct a meaningful discussion, it is essential that I provide clarification of definitions ascribed to certain terms and constructs that I have encountered in the course of my research. Definitions are taken from the UOM Handbook. (Retrieved 24/04/15 from https://breadth.unimelb.edu.au/breadth/info/index.html)

The Melbourne Model is used interchangeably with the ‘Melbourne Curriculum’, and refers to broad undergraduate degrees introduced in 2008 at the UOM, with direct pathways into a range of Graduate Schools.

UOM refers to the University of Melbourne.

MGSE refers to the Melbourne Graduate School of Education.

Breadth refers to those subjects distinct from the main field of study in an undergraduate’s degree. This includes subjects taught by other faculties and departments as well as USBs.

USBs or University Breadth Subjects are those specially developed for the Melbourne
Curriculum and examine current critical issues using techniques and approaches from multiple disciplines.

**Breadth Tracks** refers to a coherent group of subjects that progressively develop knowledge and skills relevant to a particular domain, theme, topic or issue.

**SEA** refers to Sport and Education in Australia, the second year Education Breadth subject I was specifically researching.

**Main fields of study** are those that correspond to the Majors available in any particular UOM degree.

### 1.4 Research Questions

This study aims to examine how successful the new Melbourne Model is in the light of current research, and whether “Breadth” subjects actually create depth and greater autonomy as posited by the UOM, not only in terms of the students’ body of knowledge but also in their approach to learning and their level of skill acquisition. According to the UOM Handbook, this is the *stated* intention, but as these are fledgling subjects and the program is in its early stages, the achievement of these desired goals is yet to be fully and comprehensively measured.

Thus my research seeks to answer the following question:

*How effective has the UOM’s Melbourne Model been in meeting its brief in terms of the success of Breadth subjects? That is - Do Breadth subjects actually:

(a) Create depth and greater autonomy in terms of the students’ body of knowledge? 
(b) Create depth and greater autonomy in students’ approach to learning and their level of skill acquisition? 
(c) Create complementary ways of thinking about issues and problems? 
(d) Challenge students’ perceptions about the Melbourne Model and Breadth?*
The research will add to the discourse on what makes an effective breadth subject and will further discussion around how improve the Melbourne Curriculum for the benefit of all students and teachers at the UOM. It will also help shape the future iterations of the subject, and will guide my approach to teaching and learning. Furthermore, it will assist in cascading knowledge regarding Breadth subjects to my colleagues.

1.5 Study Design

In order to investigate the depth and impact of Breadth subjects and the Melbourne Model on students’ study choices and consequent experiences, I took a phenomenological approach to this research project and adopted a case study methodology. Having identified the research problem, I adopted a multiple methods approach to the collection of data (Creswell & Plano Clark, 2011), reviewing a range of previously published literature associated with the subject area and then conducting a survey of past students. I established the questions central to the research problem, designed to evaluate the Breadth program and determine whether it had met its brief. I drew on a cohort of students readily available to me. These were students who had taken between two and four Breadth subjects in total, but had one in common: SEA. Methods of analysis were limited mainly to the discussion of qualitative data. I also undertook some statistical coding and grouping of responses to build a more generalized picture of responses and ascertain whether or not the research problem had been adequately addressed.

1.6 Thesis Overview

Chapter 1: Introduction
In this chapter I have introduced my study and provided a rationale for the research. I have explained the key terms and constructs used and outlined the aims of my research.

Chapter 2: Literature Review
The Literature Review provides background information required to put the study in context, and is the literature I consider most relevant to the subject. This ranges from material on the
Bologna Model to more current research on the Melbourne Model, some dating from as recently as March 2015.

**Chapter 3: Methodology**
Here I explain in detail my choice of Mixed Methods research using a collective case study. I initially examine the Melbourne Model, then narrow the approach to Breadth, and get feedback on just one subject as a case in point. I explain my choice of research methodology and the phenomenological approach taken. I also explain the choice of population group, drawn from past students.

**Chapter 4: Data Display**
I display my data from the survey results, compiled from the collective case study of Breadth (SEA). This data has been coded and tabled as bar graphs. I have also included selected quotes from written short-answer responses in order to illustrate and emphasise points made, and I have included some preliminary discussion and analysis.

**Chapter 5: Discussion**
I provide a more detailed discussion and interpretation of the data and consider this with reference to the many interesting findings from the literature review. I include a discussion on *wellbeing* which emerges as a significant factor and which is gaining increasing relevance and traction in research circles, particularly in the field of Educational Psychology. As the concept of student wellbeing was raised within the context of the study, it warrants further exploration which I allude to in this section. The discussion section explores many of the key issues raised by the findings, and points to areas that may be ripe for further research in the future.

**Chapter 6: Conclusion**
I make some concluding remarks to sum up the results and the findings reached, and consider areas for future investigation and research. This provides a conclusion for the section.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The intention of this literature review is to explain the Melbourne Model, and look at its precursor, the Bologna Model, to identify information relevant to my research, and to outline existing knowledge in the area of higher education reforms. I will explore the influence of internationalization and globalization on higher education, specifically examining cross-curriculum/interdisciplinary education in this context, and exploring and explaining the concept of student-centred learning which is integral to the process. Finally, I will look at the current research on the Breadth subjects as taught at the University of Melbourne.

2.2 Background and results of the implementation of the Bologna Model

On the 19th of June 1999, Ministers of Higher Education from 29 European countries met in Bolognato, Italy to sign the Declaration of Bologna, which set in motion a process to harmonize and unify the European systems of higher education into the one European Area of Higher Education (Bologna Process, 2015). The Bologna Process and Model has since been adopted by 46 countries across Europe and is gaining traction over time. While a key feature of the Bologna Model is the two-tiered system of Bachelor Degree followed by Masters Degree, the reforms are also reshaping and redefining the higher education curriculum, with student-centred learning as a key focus. This was a confronting move for many working in higher education, and was seen as both a threat and a challenge to the more traditional modes of teaching. In the past, emphasis has been on teacher-centred learning with the lecturer
impacting knowledge and students being the empty receptacles, soaking up this new wisdom like sponges (Quay, 2013). However, modern trends in education have seen a shift to a far greater level of student autonomy, with a far greater focus on student-centred learning. (Rogers, Lyon & Tausch, 2013).

Gil, Cava, Merino & Arrebola (2011) explored this idea of student-centred learning in the Spanish setting, looking specifically at the introduction of an Engineering Degree introduced in 2009. They cited the greatest challenge as ‘the management’ being able to ‘sell’ the program to the lecturers and tutors who saw it as a questioning of their skills and expertise. Those educators also argued that “Students are not prepared for a more autonomous learning process” (p511). Gil et al (2011) examined in detail, programs put in place to promote the changes and to encourage innovation in education while also recognizing the inherent skills of those teaching staff wedded to more traditional teacher-centred models. While this study recognized the resistance to change, it explored the successful programs being put in place to ease the transition towards a new model of higher education.

Reichert (2010) examined Bologna in the Swiss context and focused on the aspects of the reform program less widely touted; “the introduction of more learner-centred teaching and the definition of flexible curricula in terms of competencies and skills” (p.105). She argued that while in principle such innovations should have resulted in a more attractive option for students, such new teaching methodologies require greater investment in staff development and retraining in order to achieve such outcomes. Certainly one positive outcome has been quality assurance, and she cites Australia as one example where “qualification frameworks have been revised in light of European developments: this is the case for the Australian Qualifications Framework 2009” (Reichert, 2010, p.108). She also notes “More and more departments are discussing student-centred teaching concepts, defining learning outcomes for their programmes and courses” (p.108).
Chan & Luk (2013) conducted a small-scale study, which reported on curriculum reform in Hong Kong drawing on the Bologna process and the Melbourne Model. This study is interesting in that it is the only Asian case study, so gives a unique perspective on the introduction of reforms in the Asian context. The reforms described in this study are much more far-reaching as they involve changes at both the secondary and tertiary levels. Curriculum reform in Hong Kong “intends to add breadth to depth and to improve the generic skills of students on their non-academic achievement…and to further align with the educational system in China, North America and Australia to allow better mobility for Hong Kong graduates to pursue further studies abroad” (Chan & Luk, 2013, p.58).

A key finding was that “academics expressed doubt towards the implementation of outcome-based and student-centred learning approaches in the new curriculum despite their understanding of these concepts” (Chan & Luk, 2013, p.56). They were resistant to change and this is because, as they go on to explain, historically, education in Hong Kong has revolved around teacher-centred learning. Thus, many Asian academics quoted in this study continue to advocate for this traditional model of education, arguing that content must be adequately covered in order to provide breadth and depth. This raises the age-old dilemma of content versus style and the concept of students as the ‘empty vessels’ ready to be filled with knowledge. But with the vast reach of the Internet literally at everyone’s fingertips, this has all changed (Griffin, 2013). Knowledge is readily available to anyone, anywhere who has access to a computer, tablet or Smartphone and increasingly students are moving away from the traditional teacher-centred learning.

Emeritus Professor Patrick Griffin, Executive Director of the Assessment and Teaching of 21st Century Skills Project at the UOM in 2015, discusses how technological change and progress has had a major influence on educational leaders. He highlights how their approach to the implementation of developmental frameworks has been forced to change and adapt in
response to a rapidly changing world. His research clearly shows the need for education systems globally to respond to these changes, and to acknowledge and promote the emergence of 21st century skills: problem solving, creative and critical thinking, team work and communication. (Griffin, 2015). This is at odds with traditional teaching and learning models often still adhered to, particularly in the Asian context (Chan & Luk, 2013). Griffin argues that with the advent of Google and other such search engines, the teacher is no longer the font of all knowledge. Teacher-centred learning is becoming irrelevant in what he describes as the ‘knowledge economy’, where social and cognitive skills are now front and centre.

Portela, Sa, Alexandre and Cardoso (2009) examined students’ choices and what these reveal about the implementation of the Bologna Education Reforms in Portugal. Their findings concluded that the results were positive in favour of the reforms, as indicated by student numbers gravitating to those universities that took the lead in implementing such changes. Comprehensive measures to gauge program demand led them to conclude that “most programs that changed their curricula to comply with the Bologna principles were subject to an increase in demand by prospective students, indicative of support for the shorter degree” (Portela et al., 2009, p. 473).

Powell, Bernhard & Graf (2012) conducted a comparative analysis of the various higher-education models in response to the introduction of the Bologna Model. They compared it to pre-existing influential models taught in Germany, France, the UK and The US. Like Griffin, they saw Bologna as a reflection of economic globalization and educational competition and a timely paradigm shift in the way higher education is seen and taught. Knight (2004) had recognized and discussed this dimension of higher education some years earlier, and explored globalization in her paper on Internationalization and how it is changing the world of higher education. She posed issues and questions for the future, such as how such changes might be implemented, many of which are addressed and answered in more
recent responses to the Bologna and Melbourne Models.

For example, Sanders & Dunn (2010) examined both the opportunities and threats posed by the new model and its impact on other countries;

Recognizing the potential to capture market share, the European Commission is providing support to change the trend of Asian students preferring the United States and Australia as study destinations…Australia, conscious of its market share of the international student market (6%) and the need to remain competitive in attracting Asian students in particular, has been quick out of the blocks…” (p.97).

Education is a competitive business in the modern-day world and Universities are now big business in an increasingly globalized environment. This commercial aspect is an unavoidable if unpalatable fact for 21st century educators. With the emergence of the knowledge economy there has also come a huge growth in service skills and an exponential growth in person to person, one-on-one interactions. There is now a totally different workplace to contend with. (Griffin, 2015). Universities need to not only keep up with changes, but to set the standards or they will be left behind in the wake of these rapid advancements.

In 2006 an Australian Government Report was released entitled “The Bologna Process and Australia: Next Steps”. In that same year, the University of Melbourne rolled out the Melbourne Model and Sanders & Dunn (2010) stated that this was indicative of the important implications the Bologna Model has for the rest of the world. They concluded with this quote from an American leader in Educational Policy, Clifford Adelman who notes that countries outside Europe, such as Australia are imitating the model; “In so doing, they link themselves to an emerging paradigm where the smart money is on cooperation and conversation”. (p.104).
2.3 Background on the Melbourne Model

Influenced by the Bologna Process and the changing European Model of Higher Education, The University of Melbourne (UOM) introduced what were considered to be groundbreaking changes to higher education, in the form of the Melbourne Model. This model presented major reforms to the UOM and a radical change in the way the university ran and taught courses. The original model posited two undergraduate degrees only, Arts and Science, as is the model in leading North American universities. Fiscal imperatives resulted in the current model of six undergraduate degrees: Bachelor of Arts, Bachelor of Bioscience, Bachelor of Commerce, Bachelor of Environments, Bachelor of Music, and Bachelor of Science. In addition, students were given the opportunity to select from a range of Breadth subjects. As of 2015 there are 670 Breadth subjects to choose from the Bachelor of Arts alone, and 90 Breadth Tracks across the board. (https://handbook.unimelb.edu.au/faces/htdocs/user/breadth/BreadthSearchResults.jsp)

2.4 Breadth Subjects and Tracks

To supplement these six undergraduate ‘new generation’ degrees, students were expected to take a number of elective or ‘Breadth’ Subjects. Most subjects outside the main fields of study in a student’s degree are available as breadth, although students must meet relevant subject prerequisites. This includes subjects taught by other faculties and departments as well as thirty-one specially-developed University Breadth Subjects.

University Breadth Subjects (UBS) have been specially developed for the Melbourne Curriculum and examine current critical issues using techniques and approaches from multiple disciplines… across school, department and even faculty boundaries to study the topics presented.” (http://breadth.unimelb.edu.au/home).

2.5 Current reports on Breadth success and uptake.

Simons (2013) reported on the development of the Melbourne Model and documented events
leading up to its current incarnation, which she described as a “dangerous precedent” (p.1). She outlined several key flaws. Surveys of student satisfaction indicated that Breadth was a sticking point, and that for students the units “lacked coherence and depth” (p.4). Students got around the requirement by choosing subjects in different faculties, which were similar in content to subjects they were already studying. “An Arts student majoring in Psychology could take an economics unit in ‘Managing People and Organizations’ and count it as Breadth, even though it was entirely concerned with psychology” (Simons, 2013, p.4). This somewhat defeated the purpose of Breadth as the intention was to get students out of their comfort zone and actively encourage them to try something different.

She also commented on the two schools of thought with respect to issues of equity and social mobility. Because of the nature of the new model, students gain entry to one of six undergraduate non-specialist courses and would spend three years studying for a generalist undergraduate degree before being able to specialise. Specialisation means an additional two-plus years of post-graduate study in their chosen field; medicine, law, etcetera. Critics argue that it will “entrench privilege” and deter those who can’t afford to spend those extra years at university, or pay for expensive post-graduate degrees. Enthusiasts argue that it will be “intellectually elite but socially broad… [and that] selection will be based not on year 12 results but on tertiary performance” (p.5).

She then reported on student satisfaction with the new graduate programs and while she noted that such information is in short supply and hard to get, data released by the Vice-Chancellor, Glyn Davis, reveals that “New graduate programs are exceeding their targets. … Although the breadth subjects remain the problem children, about two-thirds of students proclaim themselves satisfied, and the figures are improving” (Simons, 2013, p.9).

The Melbourne Model claims to promote equity and access but not all of the literature
supported this. While the Federal Minister and the Vice Chancellor of the University supported the model and touted the provision of much-needed diversity in the tertiary sector, and opportunities for a more liberal education, the Age Editorial viewed the model as a return to elitism in the university sector (Potts, 2012). The Vice Chancellor and the Dean of the Faculty of Law disputed this, claiming that the delayed entry to professional degrees, and the generous scholarship program promoted equity, access and diversity. Potts (2012) saw this debate as the struggle between local and global factors influencing peoples’ view of the model. While Simons’ article was written a year later (2013) and so was not included in Potts’ analysis, it also espoused the same views on the costs and benefits of the Melbourne Model.

However, the views of the students themselves were more complimentary. Opportunities to defer major career decisions were often cited, as were the opportunities to diversify as a result of curriculum restructuring. One student cited the requirement to take subjects from another faculty (Breadth subjects), as an exciting opportunity that gave him greater experience prior to specialization (Potts, 2012). Chan & Luk’s research (2013) supported this view and gave the teacher’s perspective on the Hong Kong reforms that draw heavily on a range of models including the Melbourne Model. They argued:

The common core curriculum allows teachers to propose new courses that are of interest to society and everyday lives. There is a lot of autonomy in the learning outcomes, pedagogies and assessment (p. 64).

Coleridge (2008) was the lone published student voice, arguing against the Melbourne Model. He saw it as merely a strategy to downsize the costly and increasingly unwieldy undergraduate component of the university while shifting the focus to the more lucrative post-graduate sector. Rather than broadening academic horizons, Coleridge argued that Breadth
subjects would lead to mediocrity. Furthermore, he argued that “among first year students there is a sense of being academically channeled, constrained to take subjects that do not engage them and that in reality impede” (p.32). He felt that for the model to work, funding must increase to invest in programs.

Finally, Potts (2012) examined the press reporting of the Melbourne Model in the University’s bid to gain public support and acceptance. He noted that The University of Melbourne was not alone in introducing such reforms, citing Universities in Scotland, Ireland, Hong Kong and Chile as following its lead in introducing major educational reforms in the same vein. Potts discussed the concept of globalization and its effect on education. He argued that it created the need for a more uniform model of education and greater convergence as seen in the adoption of the Bologna Agreement in Europe, launched in 1999. This aligns with the viewpoint expressed by Powell, Bernhard & Graf (2012) who argued the case that, reflecting economic globalization:

Educational and scientific competition between countries and continents has increased, due in large measure to increased spatial mobility, the dominance of a few major world languages in science, and globe-spanning networks based on information technologies (p.226).

2.6 Breadth, interdisciplinary and cross disciplinary studies

There are various studies that highlight the value of cross and interdisciplinary studies prior to the introduction of models such as the Melbourne Model. Hollenbeck & Reiter (2005) investigated an interdisciplinary integrated Science and Art course introduced in an American college, which they argued “developed a more holistic and encompassing understanding of the human experience that is unique to a liberal arts education” and which provides a more
“balanced education” overall (p.1). Results were positive with students pleasantly surprised by what they learned with regard to the interconnectedness of topics previously seen as quite separate. Educators were reinvigorated by their own experiences of cross-curriculum teaching and learning so the program had wide reaching and broadly beneficial results.

Haas, Sheehan, Stone & Hammer-Beem (2009) undertook a similar study on interdisciplinary education and course design, and the application of the Newell Liberal Arts Model in New England, America. This study looked at inter-disciplinarity in the area of health care, and saw it as vital to achieving “communication, collaboration and cooperation across the professional boundaries” (p.579). While this study looked at the intrinsic rewards of such a program and the holistic benefits to the student, the design and intent of the program was much more pragmatic in nature, where interest of the researchers lay more in the long-term extrinsic rewards.

Students who learn together in an educational setting are more likely to respect the work and values of other disciplines and work cooperatively and collaboratively in the work setting (p.579).

This finding is very important in the light of the UOM’s Breadth model and what it seeks to achieve.

Kahn & Holody (2009) concurred in their exploration of the pedagogical model known as Writing Across the Curriculum, and the benefits it brings, discussed here in the context of Social Work education. Based on the inter-relationship of writing, learning and thinking, particularly critical-thinking, this model is also described as a strengths-based approach to student learning. The authors concluded that rather than going back to basics, this was an approach that expands on the basics in a different context, allowing social workers to think more critically and write more effectively, key requirements of the course which were not
taught prior to the introduction of this inter-disciplinary program.

Yet another definition of *interdisciplinarity* and the benefits it can bring is put forward by Cargill & Kalikoff (2007). In their discussion on linked Psychology and writing courses they referred to *learning communities or linked courses*, “courses from different disciplines or interdisciplines that are connected in content, purpose and organization” (p.83). They concluded that the benefits are far reaching, and that there is evidence that “linking writing and psychology courses can be a valuable method to improve student performance, increase student retention and build learning communities” (p. 90).

Knight (2012) also discussed the need for learning outcomes that would prepare engineering graduates for work in a dynamic and global workplace where a multi-dimensional array of skills is required. They will continue to need strong analytical skills, “but they will also need to be proficient in an array of other abilities, including professional skills, interdisciplinary competence and contextual competence” (p.1). The study recognized the benefits of academic programs which “seek to cultivate an array of abilities in their graduates, rather than just one” (p.2).

The interdisciplinary nature of Breadth subjects and the move away from traditional forms of delivery, towards “different ways of knowing” was also discussed by Davies & Devlin (2007, p.1). They described the shift to a model that aligns more closely with that of North America, with a generalist undergraduate education and greater focus on specialization at post-graduate level. As to how this will be achieved, they cite the Report of the Curriculum Commission, the body assigned to investigate, implement and report on the Melbourne Model. It recognizes “the value of interdisciplinary connections…(through) the delivery of breadth subjects that are interdisciplinary in character” (p.2).

This article then went to great lengths to explain and define *disciplines* in the context of
university studies, and of the differences between Cross-disciplinarity and Interdisciplinarity. With the former, “a topic normally outside a field of study is investigated with no cooperation from others in the area of study concerned, (e.g. Physics of Music), whereas with Interdisciplinarity, elective subjects are taken from a variety of disciplines. The end result is much the same, with these subjects providing “a remedy to the intellectual deadening effects of excessive specialization” (p.6).

Davies & Devlin (2007) recognized that Breadth subjects are both Inter and Cross-disciplinary, and their article recognized the challenges that the introduction of the Melbourne Model creates, epistemologically and pedagogically. Furthermore, they recognized the need for further evaluation of interdisciplinary teaching that is part and parcel of this model.

Finally, Finch and Gordon (2014) most recently reflected on the 2008 restructure of the undergraduate degree program at the UOM, where students are required to take 25% of their degree as ‘breadth’; that is subjects not within their core degree. This requires students to take at least three subjects over the duration of their undergraduate degree which have nothing to do with that degree. For example, a student doing Commerce might take a unit in Sports Coaching in first year, Sport, Education and the Media in second year, and Outdoor Education in the third. This means that students could take any pre-existing subjects from other disciplines, or select from an additional, newly minted set of Breadth subjects specifically designed to have a strong interdisciplinary focus:

This new type of subject is broad in the sense of taking perspectives from many disciplines on a topic, involving teaching from different faculties and teaching students generic skills as well as subject-specific content (Finch & Gordon, 2014, p.74).

Finch & Gordon’s subject, Critical Thinking with Data, fell into this category and taught students subject-specific, but also more generic skills “including those relating to
presentation, written communication and teamwork” (p.76). With a range of learning activities, modes of delivery and assessment, student feedback delivered very positive results.

In general terms, the feedback shows encouraging signs that the aims of the subject are being largely fulfilled, and in some individuals, deep insights have been established. (p.95).

Finch and Gordon’s feedback (2014) is very positive and provides an affirmation of the Melbourne Model. I am very keen to assess whether the same can be said of my subject, SEA. Theirs is one of the few studies I have found that seeks to review the efficacy of Breadth as a core component of the Melbourne Model, and in the light of the desired outcomes as posited by the UOM:

- That Breadth subjects allow students to gain knowledge and understanding across a broader range of disciplines, enabling them to develop insight, experience, and new ways of thinking.

- That Breadth subjects create depth and greater autonomy in the students’ approach to learning and in their level of skill acquisition?

2.7 Summary

To sum up, this Literature Review has highlighted the strengths and weaknesses of the Bologna Model and its relevance to, and influence on the development of the Melbourne Model here at the UOM. It identifies and examines:

- the influence of internationalization and globalization on higher education
- cross-curriculum/interdisciplinary education in this context
- the concept of student-centred learning which is integral to the process.
- current research on the Melbourne Model and Breadth subjects within this context
This review has enabled me to identify the gap in the research in terms of the Melbourne Model. I am seeking to determine how effective The Melbourne Model is in meeting its brief for Breadth subjects. I have positioned my work in the context of this previous research, opening up a space for further exploration, data collection, collation and analysis.
CHAPTER 3

Methodology

Introduction

In this chapter I explain the methodology used for the research and describe the methods of data collection and data processing, analysis and presentation, choice of population group, and participants and the positioning of the researcher within the research.

3.1 Research frameworks - Quantitative, Qualitative and Mixed Methods

This research design touches on three methodological approaches to research, each of which I will briefly explain here. I have adopted a mixed methods approach which incorporates elements of both quantitative and qualitative methodologies.

3.1.1 Quantitative

Quantitative research is experimental, deductive in nature and is often used to test a theory rather than to develop one. It is grounded in positivist theory and often described as ‘realist’ in its scientific approach to research. (Tashakkori & Teddlie, 2003). Measurement is central to quantitative research because it provides the connection between empirical observation and numerical expression of quantitative relationships. The researcher analyses the data utilising statistics in the hope that the numerical results will be unbiased and can therefore be generalized to a larger population.

In this scenario, the researcher tests a theory by specifying narrow hypotheses and the collection of data to support or refute the hypotheses. An experimental design is used in which attitudes are assessed both before and after an experimental treatment. The data are collected on an instrument that measures attitudes, and the information collected is analyzed using statistical procedures and hypothesis testing (Cresswell, 2013, p.21).
3.1.2 Qualitative

Qualitative research is inductive in nature and such studies are often undertaken because of a lack of theory in the chosen field. Qualitative research draws on constructivist theory and is sometime described as ‘subjectivist’. The researcher is the primary instrument for data collection and analysis, and fieldwork is usually involved in such studies (Merriam, 1998). A key feature of such research is that it studies the meanings of individuals’ lives under “real world conditions” (Yin, 2011, p.7), collecting individual stories using a narrative approach (Cresswell & Plano Clark, 2011). The focus is on meaning and understanding, and end results tend to be richly descriptive and may help to explain human social behaviour (Merriam, 2009).

3.1.3 Mixed Methods

Rather than the ‘either-or’ approach to research (Teddlie & Tashakkori, 2009), a mixed methods model involves the collection of both quantitative and qualitative data, sequentially or concurrently. The researcher bases the inquiry on the assumption that collecting, analyzing and drawing inferences from wide ranging data, both quantitative and qualitative, provides for the best understanding of a research problem (Cameron, 2011). Such a program of inquiry often begins with a broad survey generating closed-ended quantitative data in order to generalize results to a population and then focuses, in a second phase, on detailed qualitative, open-ended interviews to collect detailed views from participants.

A mixed methods design is useful to capture the best of both quantitative and qualitative approaches. For example, a researcher may want to both generalize the findings to a population and develop a detailed view of the meaning of a phenomenon or concept for individuals. In this research, the inquirer first explores generally to learn about what variables to study and then studies those variables with a large sample of individuals (Cresswell 2013, p.16).

Both forms of data are integrated in the interpretation of the final results to provide more convincing and comprehensive evidence (Cresswell & Plano Clark, 2011).

The benefits of this mixed methods case study framework are that typically:
Qualitative researchers study a relatively small number of individuals or situations and preserve the individuality of each of these in their analyses, rather than collecting data from large samples and aggregating the data across individuals or situations (Maxwell, 2008, p.221).

In collecting case study data, the main idea is to “triangulate” or establish converging lines of evidence to make the findings as robust as possible and with supporting literature and survey responses, both quantified and qualified, this study provided for that.

3.2 Methodology

3.2.1 Phenomenology

Phenomenology involves the researcher identifying the “essence’ or structure of human experiences concerning a particular phenomenon, and seeks to understand the lived experiences (Merriam, 2009). The procedure involves studying a small sample of subjects through extensive and prolonged engagement to develop patterns of meaning (Creswell & Plano Clark, 2011). Phenomenology tends to focus on the individual and their personal, and therefore inherently subjective responses. The German philosopher, Edmund Husserl, was the father of phenomenology, and he argued that to arrive at certainty, anything outside immediate experience must be ignored, and thus the external world is reduced to the contents of personal consciousness. Realities are treated as pure ‘phenomena’ and provide the only absolute data from where to begin research.

Phenomenology by its very definition is an approach that concentrates on the study of consciousness and the objects of direct experience. It is “concerned with understanding social and psychological phenomena from the perspectives of people involved” (Groenewald, 2004, p.3), and it is precisely that which I am concerned with in this study. It is the opinions of the individuals, the multiple interpretations that count and are of interest to me, because inevitably it is the students who will choose which elements of the Melbourne Model are to survive.
3.2.2 The Case Study

As Yin (2013) states in his discussion on research methods, when “compared to other methods, the strength of the case study method is its ability to examine, in-depth, a ‘case’ within its ‘real-life’ context” (p.2). In a case study, sample sizes are usually small and the researcher explores one or more individuals. The cases are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a period of time. Stake contends, “We are interested in [case studies] for their uniqueness and commonality” (1995, p.1).

Case studies are further characterised by several key features: they are heuristic, particularistic, and descriptive (Merriam, 2009). Case studies illuminate understanding by focusing on one particular phenomenon and describing it in rich, thick detail. A case study design can provide “insights that can be construed as tentative hypothesis” (Merriam, 2009, p. 51) relating to the phenomenon, but can also contribute to the broader field of knowledge. As such they are not merely descriptive, but interpretive. All interpretive research, case study or otherwise, assumes that there are multiple realities, or interpretations, of a single event or single case. I chose a case study design in order to develop a rich and holistic account of the phenomenon under investigation: Breadth. This thesis explores the idea of multiple interpretations of this one event or phenomenon.

Merriam (2009) provides a variety of typologies of case studies, one of which I will employ. The term instrumental is used to describe the use of a case (as an instrument) to provide an insight into a particular issue. The “instrumental case” plays “a supportive role” and it “facilitates our understanding of something else” (p. 48).

The important issue of whether a single case study can be representative and survive generalizability and external validity is raised by Bryman (2004, pp.50-52). In respect to these definitions, my research is not so much being seen as generalizable, but rather as being used as a basis around which to explore the issue at hand, which is Breadth subjects and what they provide.

Case Study is particularly pertinent when posing descriptive or explanatory How, Why or What questions. As a method, case study allows for direct observations and experience and is strengthened by using multiple rather than single sources of evidence. In collecting case
study data, the main idea is to “triangulate” or establish converging lines of evidence to make findings as robust as possible.

This case study is about establishing and testing assumptions of a specific sample of UOM students: *What were your assumptions or expectations regarding Breadth, were these met or exceeded, and were they in keeping with the intentions and expectations of the UOM?*

### 3.3.3 The Phenomenological Case Study

My research question is perfect for a phenomenological case study scenario as it deals directly with individual students and their experiences. It seeks to determine whether students are “acquiring breadth and depth of vision; *learning complementary ways of thinking about issues and problems, and challenging their perceptions*” (UOM Handbook, 2014). This is not something that can be accurately measured by quantitative data alone, so a mixed methods approach was required. Utilizing quantitative and qualitative data, in the form of individual responses to these questions, I was able to combine the two methods to come up with the best possible results for my purposes.

My major research questions were to determine whether “Breadth” subjects:

(a) *Create depth and greater autonomy in terms of the students’ body of knowledge.*
(b) *Create depth and greater autonomy in students’ approach to learning and their level of skill acquisition.*
(c) *Create complementary ways of thinking about issues and problems.*
(d) *Challenge students’ perceptions about the Melbourne Model and Breadth.*

According to the UOM, this expansion of skill-sets and development of autonomy are the stated intentions of the Melbourne Model, but as these are relatively new subjects and the program is in its early stages, the achievement of these goals is yet to be fully and comprehensively measured. This is where I saw my opportunity, with the Melbourne Model a relatively new area ripe for investigation. In terms of minor research questions, acquisition of specific knowledge is acknowledged as part and parcel of the program, so questions
ascertaining whether Breadth allowed students to gain greater knowledge outside their chosen discipline and across a range of disciplines were also included in the survey.

As Stake explains in his treatise on case study research design, each case study is unique: “Case study research is not sampling research. Our first obligation is to understand this one case” (1995, p.4). In researching the Melbourne Curriculum Model, and Breadth subjects in particular, I have utilised the Breadth subject that I teach, “Sport and Education in Australia”, (SEA) as a specific case study. This subject was initially developed by Physical Education staff within the Melbourne Graduate School of Education (MGSE), and was modelled on a course originally designed in NSW by Professor Richard Light, directed specifically at study abroad students. It placed “the interpretation of experience at the centre of the learning process” (Light & Georgakis, 2008).

In a sense, I am evaluating the program because I have a personal interest in it as a key stakeholder. However, as an educator, I am even more curious to learn why students make the choices they do. This particular case might then be described as an intrinsic case study (Stake, 1995) because I have a genuine and personal interest in the outcomes.

3.4 The Sample

The sample consisted of students who were enrolled in the subject SEA in either first or second semester of 2013 and 2014. Enrolments in the subject are typically weighted on the side of males, 70:30, and included many overseas and international students, so while I was guaranteed a degree of homogeneity in terms of a relatively similar group of university-age, mixed gender students, there was also reasonable diversity within that group.

Participants were drawn from a range of faculties and were undertaking a range of New Generation degrees – Biomedicine, Commerce, Environments, Music and Science. Arts was the only omission, as SEA is regarded as an Arts subject and one of the stipulations for taking Breadth is that it must be a subject from studies outside the student’s home faculty. This was the one key limitation this choice presented, but as Patton (2002) expounds, homogenous sampling is designed to describe a particular subgroup in depth and as the UOM is made up of so many students in so many fields of study, this selection on the basis of one Breadth subject served to narrow the focus, reduce variation and simplify analysis.
3.5 My Position in the Research

I acknowledge the power imbalance that exists between me as the subjects’ former tutor, now researcher and the subjects as my former students. This is why those students selected were not under my tutelage at the time, and were approached, via my supervisor rather than by me. Being a current member of staff and currently teaching the Breadth subject under investigation could be seen as exerting influence on my research. These ties and potential biases associated with them were exposed and confronted, so as not to be projected onto the subject group. Being aware of the potential for bias was an overarching consideration during the course of my research, and I was aware of the need to keep these tendencies in check.

3.6 Methods

3.6.1 Document Analysis

Document analysis was my starting point and the Literature Review served to examine existing theory. This has proved useful in framing the current and proposed research in the light of what has gone before, and in identifying where the information gaps lie. Added to these are my own classroom observations, SES responses and actual assessment tasks, alongside notes from a weekly de-brief with a fellow tutor. Discussions were not just focused on managerial issues but on student expectations of how the tutorials would run, what students’ roles in the tutorials would be, their responses to challenges set and to the material presented in those tutorial sessions. My notes helped structure the survey.

3.6.2 The Survey

The Survey was my key tool and primary method of data collection. (See Appendix 1). I chose this method as I felt it would be the most effective for my purposes, in terms of time and reach. I created my survey via Survey Monkey, an online platform which allowed me to customize my questions and collect and analyse my data in one simple program. Titled The Melbourne Curriculum Model, Breadth Subjects and “Sport and Education in Australia” as a specific case study, it set out to:
Investigate students’ expectations of the University of Melbourne’s Breadth subjects, and of a specific Breadth subject (SEA).

Determine whether these expectations have been met and whether these expectations are in accordance with the desired aims of the UOM’s 2008 “Melbourne Curriculum” for Breadth.

It consisted of 30 questions in total and was launched in mid 2014. It was originally sent to three past cohorts of students, 200 in total and initially yielded just 18 responses. This was not a suitable number to provide any really useful data so the survey was resent at the end of 2014 to the most recent cohort of students I had taught, bringing the total to 300 recipients. With a response rate of approximately twenty percent, it provided me with enough data to generate quantitative feedback upon which some hypotheses could be tested. However, the emphasis was on the content of individual responses:

Qualitative methods typically produce a wealth of detailed information about a much smaller number of people and cases. This increases understanding of the cases and situations studied (Patton, 1990, p. 14).

Through surveying a broad sample of past students I hoped to get rich data through a combination of quantitative data, using Likert Scale questions/responses, and qualitative data through the use of open-ended questions which required more detailed and extensive written responses.

This provided me with some rich data that could be quantified to some extent through some basic statistical analysis. Because it was such a small sample, the results are not transferable as such, but do help to sort and explain the data that was collected. However, the emphasis is on the qualitative results rather than the quantitative, as the lived experience was at the very core of the research question. The survey responses helped guide and inform the analysis I then conducted.

The Survey was crafted in such a way as to reiterate the aims of the UOM Curriculum Model, drawing directly on mission-statements from the UOM handbook and rewording these slightly to create questions or statements that would elicit meaningful responses:

E.g. Breadth allowed me to develop insight, experience and new ways of thinking in areas distinct from my main field of study.
Or, Breadth subjects provide relief from the intellectually numbing effects of excessive specialization.

Both these questions required answers on a sliding scale from Strongly Disagree to Strongly Agree and are examples of responses that would hopefully yield some qualitative data. The responses have been presented in the form of a graph, allowing for some basic, quasi-statistical analysis. There are then follow up questions that elicit written responses expanding on these initial responses, such as “What do you see as the advantages/disadvantages of taking Breadth?” and “How have you benefitted intellectually from taking Breadth subjects?”

According to Patton (2011) the ordering of questions is important with factual responses elicited first, establishing the subject’s background and experience prior to teasing out their opinions, feelings and more sensory knowledge. In accordance with this emphasis on sequence, I formulated and presented a broader series of questions about student experience of Breadth first, before narrowing the questions to my subject area (SEA) as the specific example or case study in question.

Developing these questions proved quite difficult and Maxwell (2008) distinguishes between what you as a researcher want to understand in doing the research, and what you hope to accomplish. E.g. Will the research lead to changes in how I conduct my classes in the future? In my case it is exploratory research, but if this leads to a recognition of flaws in my teaching or gaps in the subject matter that I can then rectify, then all the better! Maxwell also outlines a common confusion between research questions and interview questions:

Your research questions identify the things that you want to understand; your interview questions generate the data that you need to understand these things (2008, p.230).

My research question sought to identify certain assumptions held by students, and my survey questions served as interview questions designed to generate this data, albeit written interview questions. Krosnick (1999) in his paper on Survey Research points out the value of
pretesting, arguing that it “identifies questions that respondents have difficulty understanding or [which they may] interpret differently than the researcher intended” (p.541).

However, this is often easier said than done and pretesting has its own issues. I was reluctant to send a pretest to past students for fear of reducing the numbers available for my final sampling cohort. Instead I sent the survey to three tutors of SEA, past and present, in order to get their opinions and feedback on the content, layout and timing.

3.6.3 Strengths of the survey method

In summary, the following are the benefits of the survey as a mode of research:

Cost-effective – The survey could be emailed to hundreds of students at no-expense, and this could be done repeatedly to increase the sample size.

Generalisable - Because surveys allow researchers to collect data from very large samples for a relatively low cost, survey methods lend themselves to probability sampling techniques. Survey research is probably the best method to use to gain a representative picture of the attitudes and characteristics of a large group.

Reliable – Assuming that it is a well-constructed question and questionnaire design, one strength of survey methodology is its potential to produce reliable results. Surveys are standardized in that each participant gets the exact same question phrased in the exact same way.

3.6.4 Weaknesses of the survey method

In summary, the following are weaknesses of this mode of research, and some elements that are seen as strengths can also prove to be weaknesses too.

Unreliable - A poorly phrased question can cause respondents to interpret its meaning differently, which can reduce that question’s reliability.

Inflexibility – The researcher is limited to one instrument of data collection and if this is flawed, the questions cannot be changed or ‘tweaked’ as they might be in an interview situation in order to enhance clarity or understanding.
Validity - Survey questions are standardized; thus it can be difficult to ask anything other than very general questions that a broad range of people will understand. Because of this, survey results may not be as valid as results obtained using other methods of data collection such as interviews that allow a researcher to more comprehensively examine whatever topic is being studied.

3.7 Data reduction and analysis

Survey responses were subject to coding. Organisational categories established the broad subjects, so the initial topics consist of (a) The UOM Model and Breadth as a component of that, then (b) SEA as an example of that. These are the two broad areas being examined. The next level is substantive or descriptive categories. Maxwell, (2008) describes these as including description of participants’ concepts and beliefs and which fall along the lines of approve/don’t approve of the UOM model. The third level places “the coded data into a more general or abstract framework” (p.238) and is apparent in the conclusion once results were analyzed and conclusions drawn.

3.8 Trustworthiness and validity

Richards (2006), in his examination of quality in qualitative research discusses credibility, dependability and transferability as being paramount in any good qualitative research, and I believe my study achieves all three. It has credibility, in that it draws on a range of subjects and of data types from the field. These include survey responses with open and closed questions with scope for quantitative and qualitative analysis, and data analysis of literature allowing for triangulation. It also demonstrates dependability and adequacy of the data in that the survey questions are detailed and comprehensive enough to yield useful results in sufficient numbers. Transferability is achieved through the “richness of description and interpretation” (Richards, 2006) produced on the basis of subject responses. Maxwell (2008) emphasises the difference between transferability and generalizability, stating that the latter is “usually based not on explicit sampling of some defined population to which the results can be extended, but on the development of a theory that can be extended to other cases” (p.246). Such transferability is a part of the aim of my research and as such is not purporting to
provide “precise extrapolation of results to defined populations” in the same way probability sampling would allow.

Finally, the validity and reliability of qualitative data is often called in to question, and the integrity of the research “depends to a great extent on the methodological skill, sensitivity and integrity of the researcher” (Patton, 1990, p.11). Silverman (2011) discusses what he describes as the ‘loaded evaluations’ of research methodologies and the oft-held view in scientific circles that quantitative research is superior to qualitative research because of its objective nature. Qualitative research is often seen as exploratory and unscientific, riddled with bias and influenced by the researcher’s political values.

Bearing this in mind I have been careful not to “smuggle unexamined assumptions into the research questions themselves” (Maxwell, 2006, p.229). Being so connected to the topic under scrutiny, my knowledge, background and experience threatens to introduce bias into the equation. However, Maxwell does go on to argue that “Using this experience in your research can provide you with a major source of insights, hypotheses and validity checks” (2006), and could prove a help rather than a hindrance. Indeed, the use of such experiential data has gained credibility in recent times and drawing on my own experience as I have done is something Richards (2006) considers ‘essential’.

Qualitative research by definition is stronger on narrative and description than it is on statistics, (Silverman, 2011), and this is seen as a limitation in terms of reliability due to the impossibility of being able to categorise those events described. Results may be inconsistent and this calls in to question the validity of such research. Because of the largely anecdotal nature of my research, the veracity of conclusions drawn may be a concern as expressed by Silverman who argues that such snippets of information “are used to provide evidence of a particular contention. There are grounds for disquiet in that the representativeness or generality of these fragments is rarely addressed” (2011, p.21).

The very nature of my particular research question does not lend itself to extensive or detailed statistical analysis, and so as long as I do not fall into the trap of making sweeping
generalisations based on this collection of sample responses, I should be able to adequately address such concerns. However, having said that, there is obviously a significant quantitative component seen in the statistical data provided; bar charts tabling responses to some of the twenty questions completed by the 46 respondents. It is from these that I am able to draw conclusions and make broader qualitative statements pertaining to the topic in question.

3.9 Ethics and timeline

This project involved consenting adults with non-controversial subject matter so was deemed ‘low-risk’. It was reviewed and given final approval by the Human Research Ethics Committee at the UOM in 2014. Surveys were disseminated and results collated over the proceeding 18 months adhering to University guidelines which were strictly followed.

3.10 Summary

As a topic with little prior research, the UOM Melbourne Model of education, and the assumptions and expectations of students entering into it should prove interesting and informative. It will no doubt provide some interesting data to promote further discussion and reflection on those changes introduced. This chapter has provided a description and rationale for the choice of methodology. With due consideration of accepted methods of qualitative case-study research, I undertook a survey and followed up with analysis of the data from a qualitative and quasi-quantitative perspective. While this mixed methods approach was not without its issues, it was very successful in providing powerful data and rich interpretations to inform my own interpretive analysis of the phenomenon under investigation.
CHAPTER 4

Presentation and discussion of quantitative data

This chapter displays findings from the survey that was emailed to approximately 300 students, of which 46 responded. Responses are charted in bar graphs to show distribution of data, and have been collated, under subheadings. In adopting the mixed methods approach, this study combines qualitative and quantitative approaches to the research. The statistical analysis allows me to convey information graphically so as to best illustrate these findings. Organisational categories established the two broad topics which consist of (a) The UOM Model and Breadth as a component of that, then (b) ‘Sport and Education in Australia’ (SEA) as an example of Breadth. The questionnaire consisted of 13 short answer questions including some Likert style and some long answer questions, which will also be discussed. Complete sets of these can be found in the Appendix.

Theme 1: The Melbourne Model and the broader benefits of Breadth

The following three tables demonstrate that students found Breadth to be a worthwhile learning experience in that it opened them up to new ideas, new information and new ways of interpreting that information. This will be further explored through analysis of the tabled results, and detailed examination of individual written responses pertinent to this.

The first bar chart, Broader Knowledge, shows responses to questions regarding acquisition of new ideas. Students strongly agreed that gaining new knowledge was a key element of Breadth subjects. The second bar chart titled Broader Skills pertains to the statement, “Breadth is more about the skills acquired than the knowledge learned”. Responses were more equivocal and the highest response rate was neither Agree nor Disagree (37%), though the remainder responded in the affirmative (39%) rather than the negative (24%). This tends to contradict the first chart. While acquisition of new knowledge was seen as a definite end result, the acquisition of new skills was seen as a higher priority. When posed as an either/or, the second chart clearly indicates this.
New ways of thinking can be seen as a new skill, as it requires students to modify their approach to new information. Being drawn from a range of subject areas and fields of study, students often have a fixed approach to their studies, a ‘fixed mindset’. On the other hand, a “growth mindset” thrives on challenge and stretching existing abilities (Mangels, Butterfield, Lamb, Good & Dweck, 2006). These students have obviously risen to the challenge.

The final question addressing New ways of thinking, ("Breadth subjects allowed me to develop insight, experience and new ways of thinking in areas distinct from the main fields of study in my degree") also yields results in the affirmative with 89% agreeing or strongly agreeing with this statement.

**Theme 2: Breadth – Specific Positive Outcomes**

This table consists of three questions coded and grouped accordingly to indicate what students saw as positive outcomes as a result of studying Breadth subjects as part of the Melbourne Model.
The first bar chart was in response to the question, *“Breadth subjects gave me an opportunity to diversify prior to specialization”*. The majority were in agreement with 50% agreeing and a further 17% strongly agreeing, 57% in total. This *should* be the case considering that the aim of Breadth subjects is to provide areas of learning that differ in content to that of their undergraduate degree. For example, SEA is an Arts/Education subject drawing heavily on Sociology and cannot be taken by Arts students. Students who select the subject come from a range of faculties; many are Bio-Med students with an interest in physiology, and often mistakenly assume that the *Sport* component will be a link to their primary area of study, the human body. Others are pure Science, used to writing in a scientific style where there is often no room for equivocation or discussion – it is either true or false. In this way, these students are intellectually challenged not only by new subject matter but in being challenged to develop new ways of thinking and apply new models of working in response to that. While 17% disagreed with the notion of being able to diversify through Breadth, not one student was in strong disagreement.

The second question pertains to the bar chart titled, *Relief from Specialization*: “*Breadth subjects provide relief from the intellectually deadening effects of excessive specialization*”.
The question is a direct quote from Davies & Devlin (2007) who reported on the interdisciplinary nature of Breadth subjects and the advantages of these, describing these subjects as providing “a remedy to the intellectually deadening effects of excessive specialization” (p.6).

Results seem to support their research. The majority of respondents agreed (33%) or strongly agreed (52%) with 11% undecided. Less than 5% disagreed with this statement. Again this is a vote of confidence for the Melbourne Model.

The third chart plots responses to this statement; “By being provided with opportunities to study across disciplines, I am more likely to understand and respect the work and values of other disciplines.” A total of 74% of respondents agreed while 15% were undecided and 11% disagreed. This supported the notion that Breadth created more worldly students which is one of the great unspoken benefits of a university education.

**Theme 3: Breadth – shortcomings**

The majority of respondents (54%) disagreed with the statement, “Breadth subjects are an unnecessary distraction from my specialist subjects”, with smaller numbers agreeing (9%)
and strongly agreeing (9%) totaling only 18%. While students were not overwhelmingly positive in their response, they were certainly not anti-Breadth with 28% clearly ambivalent on the topic. The latter clearly did not see it as a distraction from the ‘main event’.

For the statement, “Breadth subjects lack coherence and depth” 58% disagreed, 16% strongly disagreed and only 7% agreed.

“The Melbourne Model left me feeling academically channeled”, resulted in some surprising responses. Of the respondents, 44% agreed, 18% disagreed and 38% had no opinion.

“Do you think Breadth subjects should be compulsory?”
42% agreed, 46% disagreed so this was one of the few questions that divided the respondents equally. With little between them, this data is inconclusive at this stage.

**Sport and Education in Australia as a sample of Breadth**

The second grouping consists of three bar charts where the questions focused specifically on the second year Breadth subject, SEA.

**Theme 4: SEA – Broader benefits of a specific Breath subject**

The first bar chart records responses to the statement, “This Breadth subject (SEA) enhanced my overall learning experience”.

The majority of respondents agreed, (57%), 20% strongly agreed and only one respondent (2%) disagreed. The fact that over 77% of students in the survey regarded SEA in such a positive light is a vote of support for the Melbourne Model in general, and this subject in particular.
The second bar chart addressed the question; “Participating in the subject Sport and Education enhanced my sense of being a part of the wider university community”. Of the respondents, 83% agreed and again only one respondent disagreed. This is an even better result in the light of the aims of the Melbourne Model and indicates that this particular Breadth subject is meeting its brief.

The third bar chart, “Focusing on my own learning in this subject, I learned new ideas, approaches and/or skills,” was also in the affirmative with no disagreement at all with this statement. While a few respondents were ambivalent, 12% neither agreeing or disagreeing, 65% Agreed wholeheartedly with 24% Strongly agreeing, a total of 89% in agreement with this statement. Not one student disagreed, a very positive result in the light of the Melbourne Model and what it set out to achieve.

Table 5 was a fairly general question designed to elicit a fairly general response and overview. “Was Sport and Education in Australia better than you expected, worse than you expected, or about what you expected?”
Of the total respondents, 44% responded with a bit better and 20% a great deal better so thankfully, positive outcomes did not meet negative expectations. Only 4% felt the subject was somewhat worse than expected.

**Table 6: Rank in order the reasons why you chose this subject. (Why I chose Sport and Education in Australia).**

Because of the nature of this question and the need to rank in order, it was decided to group responses in terms of students’ top three ranked responses in order to get a more definitive or conclusive result. Therefore, categories represent multi-response items; that is, one student can appear in more than one of the categories listed.
“I like sport” was one of the top three choices for 95% of recipients, as might be expected, particularly considering 38% had taken the subject *Sports Coaching* prior to this. “Content appealed to me” ranked at 89%, again with a view to the subject revolving around sport. The third highest ranking (48%) was in response to the statement that they selected SEA because it promised to be “Intellectually stimulating”.

While this is what I hoped to see as coordinator and co-designer of this subject, it is not necessarily what I expected to see in the responses. The next bar chart, Table 7, registers responses to the question asking what it was about SEA that they actually enjoyed the most, and leads into the following questions about student expectations. Responses indicate that student expectations were met for the most part.

**Table 7: What was it about the course that you enjoyed the most?**

Again, because of the nature of this question and the need to rank in order, it was decided to group responses in terms of students’ top three ranked responses in order to get a more definitive, conclusive result, so again a multi-response series of items, where students’ responses appeared in more than one bar graph. Results are more evenly spread than in the
previous graph but what is clear is that students most enjoyed the intellectual challenge of “thinking outside the box”. This is what they were predominantly seeking from the subject according to the previous responses recorded in Table 6.

What I enjoyed most about Sport and Education in Australia

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage of students ranking each item in the top three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debating the issues</td>
<td></td>
</tr>
<tr>
<td>Doing something outside my major</td>
<td></td>
</tr>
<tr>
<td>Engaging in class discussions</td>
<td></td>
</tr>
<tr>
<td>Examining media</td>
<td></td>
</tr>
<tr>
<td>Group work</td>
<td></td>
</tr>
<tr>
<td>Hearing the opinions of others</td>
<td></td>
</tr>
<tr>
<td>Learning to present</td>
<td></td>
</tr>
<tr>
<td>Meeting students from other faculties</td>
<td></td>
</tr>
<tr>
<td>Thinking outside the box</td>
<td></td>
</tr>
</tbody>
</table>

There is also a huge emphasis on meeting students from other faculties (56%) and hearing the opinions of others (48%). Most surprising is the positive response to group work (27%) which is a high response rate considering that anecdotally, group work is the one thing most students dislike or claim to dislike. This table has a follow up short-answer question; “Reflecting on your answer, can you expand on your response and explain why?” Students are labelled according to the original order in which they responded to the survey (e.g. #1 was the first to fill out the survey). One response was as follows:

Working together in groups was good, and actually the result of this enabled the group to get to know each other and prompted more thorough discussions and opinions in class. Without having the groups, it would result in less debate of issues (#15).
What this emphasized was the importance of class discussions to the students, and just how beneficial and enjoyable most students found these. Most answers related to this point, and this was reflected in the 48% response rate valuing most ‘hearing the opinions of others’. The majority of comments here reflected this common theme.

I enjoyed listening to others opinions. Allowed me to revaluate my own views (#10).

I like to discuss current media and affairs with other students and hear their opinions. Conversely I dislike group work at universities as a general rule, although it was fine this subject because it does not count towards our overall subject mark (#9).

It's a great subject to learn more about something that you would have not have known about. As well as providing a gateway to express opinions and ideas (#21).

Discussing the issues in sport in a class full of people who enjoy sport led to entertaining and passionate discussion (#7)

They discussed real and present issues in sport which was interesting, and different sports and people with different backgrounds gave interesting and new perspectives on the issues (#5).

The aspects that I enjoyed most were perhaps aspects that are not as apparent in my home faculty. These aspects I found fantastic as they allowed me to be more engaged in a group environment (#16).

In summary, while students enjoyed one another’s company, it was the intellectual challenges and the verbal sparring that they came to value most. This only came about because of the relaxed and inclusive nature of the classroom dynamic, enhanced by group work and social engagement.

Overall, responses highlighted benefits of the model and positive outcomes for the students concerned. These outweighed negative factors which were acknowledged but considered less important in the overall scheme of things.
CHAPTER 5

Analysis and Discussion of qualitative data

Overview

In 2006 The University of Melbourne introduced the Melbourne Model and Breadth subjects. The major focus of my research was to determine whether “Breadth” subjects created depth and greater autonomy, not only in the body of knowledge the student already possessed or was acquiring through their core subjects, but also in their approach to learning and their level of skill acquisition. My research question dealt with the acquisition of skills rather than of knowledge as the primary role and purpose of Breadth subjects, and the intention was to explore whether students were ‘acquiring breadth and depth of vision’. This case study is about establishing and testing assumptions of a specific sample of UOM students: What were your assumptions or expectations regarding Breadth, were these met or exceeded, and were they in keeping with the intentions and expectations of the UOM?

I drew directly on the stated aims of the Melbourne Model to devise questions that would challenge whether or not Breadth subjects were achieving these desired aims. Were students actually “learning complementary ways of thinking about issues and problems, and challenging their perceptions (UOM Handbook, 2014).

This is not something that can be accurately measured in a quantitative sense, though the Data Display in Chapter 4 utilises some simple bar graphs to describe distributions of data and make sense of the information collated. I was able to group some responses to provide some good base line quantitative data that is now supplemented by rich qualitative data that I have collected. In addition to this I obtained individual responses to these questions and by looking at each in turn I have been better able to understand the thinking behind them and gain an improved understanding of the expectations of the students involved in this study. The study moved from the general to the specific, looking at the Melbourne Model overall, then narrowing questions to focus on the specific, utilizing SEA as a case study.
From the general…

The open-ended survey questions produced some detailed responses from participants, providing me with their perceptions of the world as they saw it. These responses have provided depth, detail and individual meaning, and this ‘purposeful sampling’ has produced information-rich cases for in-depth analysis. I am also able to provide some simple statistical analyses of the results. Combined with the pre-existing literature, this range of survey-response material both qualitative and quantitative, has allowed for even greater triangulation and richer data through cross verification. Maxwell (2008) advocates such an approach as a means of reducing “the risk of chance associations and of systematic biases due to a specific method” (p.245).

The series of questions which were designed to glean information about the Melbourne Model in general were as follows:

Q10: Reflecting on the unique structure of the University of Melbourne undergraduate program, the Melbourne Model, would you recommend this to others? If so why? If not, why not?

Q11: What did you know about Breadth subjects and the Melbourne Model before you started your University of Melbourne course?

Q13: What do you see as the advantages of taking Breadth subjects?

Q14: What do you see as the disadvantages of taking Breadth subjects?

Q15: How have you benefitted personally by taking Breadth subjects?

Q16: How have you benefitted educationally from taking Breadth subjects?

Q29: If you had gone to a different university where the Melbourne Model did not apply, and Breadth subjects were not compulsory, what do you think the advantages might have been?

Q30: If you had gone to a different university where the Melbourne Model did not apply, and Breadth subjects were not compulsory, what do you think the disadvantages might have been?

Question 11:

I begin with an exploration of question 11 which asks what students knew of the UOM Melbourne Model and Breadth subjects prior to starting at the UOM. Of the respondents, nine said ‘not much’ and a further nine said they knew ‘nothing’, indicating that 18 in total, or almost 40% knew very little about the UOM stand-alone model prior to commencing their
course. Thus, it had nothing to do with their initial selection process. Of these, there was only one negative comment:

*Didn't know there was such a thing and should be explained more to high school students because it may have altered my decision in going to Melbourne.* (#27)

The remaining respondents had some idea of Breadth as electives, and most seemed to understand that these would be from an unrelated field of study:

*I didn’t know much at all. From what I had heard from people they were the fun subjects. Personally I originally thought that they may be a waste of time, as I would end up doing a unit that I have no interest in.* (#40)

What is most interesting about this response is the hint of a shift in thinking over time, and the remainder of this respondent’s survey responses confirm a change in position from their original, somewhat negative perceptions of Breadth. In fact, this student was a complete convert to the cause in terms of what s/he expected and what s/he got from the UOM Model:

*For someone like me, who is indecisive about what path they want to take, I would recommend the model. It has given me a chance to study a broad range of units, which has made those units that I enjoy the most stand out...It gave me a chance to focus my attention on something different rather than my core subjects that were quite heavy. I really enjoyed the experience that it gave me in an area of study that I have an interest in, but would not otherwise pursue as a main unit... I am even considering aiming my course more in the direction of my breadth subjects, as it opened up all these opportunities and interests that I had never even thought about before.* (#40)

Not only is this student a convert, but it has transformed their view of their learning environment and opened up options never before considered. In light of the research question, not only has Breadth opened up “complementary ways of thinking”, but has most certainly “challenged their perceptions”.

Another student responded that Breadth subjects were seen as “the "bludge subjects" to space out your course.” (#30). Again, this student was a convert with the majority of their responses affirming the UOM model. S/he went on to state:

*I enjoyed it. I expected to be under the pump in my breadth, but the work loads are*
well dispersed and easy to catch up on if you get behind... The thing I enjoy most about my breadth subjects is the interaction is a main part of the course. The rest of my core subjects are quite closed off (#30)

Other comments reflected this positive outlook:

I didn't know much about the Melbourne Model. I knew that we were able to do breadth subjects which I was excited about as it gives a very good opportunity to study alternative topics and widen your knowledge (#46)

I knew that it was a requirement to do subjects in different fields. I thought this was a good chance to experience other studies (#38).

In spite of their reverse order on the questionnaire, question 10 is effectively a follow up to this and I will now discuss the responses to this question.

**Question 10:** Reflecting on the unique structure of the University of Melbourne undergraduate program, the Melbourne Model, would you recommend this to others? If so why? If not, why not?

There were 22 respondents who unequivocally stated “Yes” in response to this, versus three firm “No” responses. Two were neutral and the remaining 19 saw “pros and cons” though the majority of these looked upon the model favourably:

Yes, I would, allows to have a look at a multitude of different options before selecting your specialisation. Under the Melbourne model I've changed my major three times and it hasn’t affected me. (#43)

For someone like me, who is indecisive about what path they want to take, I would recommend the model. It has given me a chance to study a broad range of units, which has made those units that I enjoy the most stand out. (#40)

Yes, I would as it gives you a chance to experience a range of subjects in different majors before jumping into a specified major, which is more logical and practical for a wider range of students as many tend to change their ideas about what they want to study in. University of Melbourne gives students the time to decide without feeling rushed. (#32)

Positively, the structure of the breadth requirements mean that I was forced to broaden my horizons which, in hindsight is a great thing. As a new student, I think you can be quite closed minded and stick to your own course as that is what you have chosen to study. The breadth requirements force you to experience new things. The
Melbourne model does not allow us to study double degrees, and with the undergrad program is only 3 years, I feel as though I could be getting a deeper education at another University. In this sense I feel other universities may have the edge (#16).

Clearly, respondents saw Breadth as an opportunity to experiment and this was seen as beneficial in the longer term. Almost half of those surveyed would unequivocally recommend Breadth to others on the basis of this. The remainder shared these sentiments and were happy to recommend the MM, though also voiced some concerns in equal numbers. It is clear that students questioned the model but these responses tended to be pragmatic rather than philosophical in nature. Of the few negative responses, the general theme was of time and money wasted, and these are legitimate concerns for many students:

Breaths (sic) are forced upon you. Though I happen to like a few of them, I’d prefer to have a choice of my own (#31)

I would not. Even if the subjects are supportive to your major/course, it's an additional subject, additional exam/essays and added pressure to put on us! (#37)

In theory the Melbourne model is a good idea, learning from other disciplines and expanding your learning but I'm not really into doing something that Isn't really necessary to do at great costs. 4 thousand dollars is a lot of money for something that isn't really necessary. Being a student who has to travel 3hrs a day to Uni, it is already hard financially and knowing I'm getting myself into more debt daunts me. Also it puts students under more pressure. (#18).

Again, legitimate issues of freedom of choice are raised; while there are a huge range of subjects to choose from, the very fact that students are put in this position and compelled to choose is an irony and anathema for some.

Question 12 poses the question, ‘How did your views of Breadth change once you took a Breadth subject?’ This provides an interesting follow on, and with this particular student (#18), the negative attitude persisted:

I saw breadths as a way to learn something alternative to my main discipline but now I see it as a bludge subject and a subject I can get free marks in (#18).

However, s/he was in the minority. Nevertheless, there was a much more even spread of
opinions and responses to this question and it was certainly not black and white. What became apparent in reading these responses was not just the range and diversity of Breadth subjects available to students, but the range in content and implied quality. It was apparent that Breadths varied widely in terms of their degree of difficulty, the quality of teaching and the range of assessment practices adopted. Inconsistency was one of the key findings, and for some students there was the expectation that these Breadth subjects would be easier than their mainstream subjects. They were often surprised that this was not always the case. There was also the dilemma for students, whether to choose subjects they liked, or subjects they felt would cause them the least inconvenience and offer a ‘free ride’. This meant that selection criteria determining their choice of Breadth subjects often changed over time:

First I took subjects that I think looked interesting but then changed to subjects that required little effort or had no exam (#1)

Huge range in difficulty and assessment from subject to subject - some subjects are very laborious and have difficult, time consuming assessment, others are easy to do and require minimal effort disadvantaging students in the earlier situation at getting the same score as students in the latter situation (#5).

Once I started with my breadth subject I found myself really enjoying them. My views changed, and I actually found myself interested in so many of the breath options. There was such a vast collection to choose from, which actually meant that I could pick something I was interested in (#40).

These students were generally negative across the board, but still had some positive comments to make, and this tended to come out in the questions specific to SEA:

Learning of others' perspectives and that some of the issues even exist! They discussed real and present issues in sport which was interesting, and different sports and people with different backgrounds gave interesting and new perspectives on the issues... Lots of discussion, which I liked, and they were interesting topics.” (#5)

Generally, responses were favourable:

Now I understand that they are meant to expand the student's academic horizons. The overall goal of Breadth subjects reminds me of the "open curriculum" my own (Grinnell College) and many other institutions utilize back in the US (#36).

Expanding academic horizons; exposure to different types of learning; if specialization is in science courses, breadth subjects allow students to continue
improve non-scientific writing; allows for connections to be drawn between one's own specialization and the rest of the academic world; breather from subjects all in the same discipline...could potentially take away time from specialized courses/distract students from other work; students may assume they are "blow off" classes and not take them seriously (#23).

Didn't have any expectations to begin with, but loved the idea once I started, especially when I learned some of my friends at other universities don't have the chance. (#46).

I loved breadth subjects as they allowed me to do things that I have interests in (outside of my main course subjects) and also to test other fields so that I could really narrow down what I did and didn't like. I had this view from the beginning and it was just solidified after taking my first breadth subject (#17).

I found my breadth studies very interesting. It wasn't just the course work which was drastically different, but the way in which you had to think about things and the way in which my peers thought about things. It was quite an enlightening experience to work and learn from different people who learn and approach tasks from drastically different angles (#16).

Interacting with new people I think is always going to help on a personal level. Breadth subjects forced me to take a broader look at the university rather than just confining myself to one group of people. As a person I think it showed me that there are many different people, opinions, ways of thinking etc. across the university, allowing me to build new relationships with new people I wouldn't meet (#31).

I discovered that Breadth is more about learning a range/variety of different skills or knowledge rather than specialising in a certain area (#23).

These responses are important in that they demonstrate that while students often felt cornered and ‘forced’ to do something against their will, end results were generally favourable. this tends to fit with the old adage that ‘teacher knows best’, and while this notion may seem outdated, it is often the case throughout life. As the then US Secretary of Defense, Donald Rumsfeld so aptly put it back in 2002, we don’t know what we don’t know. The reflective nature of students’ responses indicate that formerly entrenched positions and opinions may have changed over the course of time and as a result of their experience of breadth subjects. Phrases from the students such as ‘Now I understand…” and ‘an enlightening experience’ reinforce this notion of breadth as experiential, with generally positive outcomes.

The following question 13 asked specifically; What do you see as the advantages of taking Breadth subjects? Some responses were very pragmatic:
Allows me to get a part time job using the skills I learn from breadth subject, such as coaching basketball. (#43).

Other responses were broader in their scope and considered the wider benefits:

The advantage is that you mingle with people from various faculties and various backgrounds. (#38).

Gain new skills, knowledge and friends. (#21)

But the majority of comments emphasized the advantage of being able to diversify and ‘try before you buy’:

Complete a minor concurrently with a major. Taste of future study options. Prepare for postgraduate study, i.e. Masters of Education which is not offered as an undergraduate course. (#29).

Opportunity to test new areas and consider future career or study options depending on their level of enjoyment (#27)

Broadening areas of learning an experiencing different studies areas. It can also help with the decision of what to major in and where to take that major - such as doing education post grad. (#14)

I think that breadth subjects force you to think differently if you choose subjects that are drastically different to your home faculty. This is definitely a big benefit. As you can tend to become used to working with a certain type of person from your home course. (#16)

Expanding academic horizons; exposure to different types of learning; if specialization is in science courses, breadth subjects allow students to continue improve non-scientific writing; allows for connections to be drawn between one's own specialization and the rest of the academic world; breather from subjects all in the same discipline (#36)

Question 15 complements this line of thought, asking How have you benefitted personally by taking Breadth subjects? Some responses were very straightforward and focused on concrete benefits and practical skills attained:

Doing sports coaching last year helped because I coach and run Auskick clinics, so it was a useful life skill (#44.)

Allowed me to coach a basketball team and find out how to psychologically help my students (#43)

I have learned how to reference through other subjects which has helped in my course (#38)
I furthered my studies in a language (#46)

For others, Breadth subjects had a profound impact on them personally, with implications for future career choices and educational pathways:

I am even considering aiming my course more in the direction of my breadth subjects, as it opened up all these opportunities and interests that I had never even thought about before (#40).

My breadth subjects have been my favourite subjects, made me reassess my undergrad Major into possible transfers (#46).

I have realised that I would like to work in industry rather than professional services, where I can combine my interests in sport and business into one job (#27).

Opened my eyes to areas that I didn't know I was interested in (#37).

The Melbourne Model or Melbourne Curriculum as it is now known was designed to delay entry to professional degrees in the hope that this would promote greater equity, access and diversity (Potts, 2012). The fact that students recognized this and saw Breadth as beneficial in opening them up to possible new pathways was an endorsement of the model. Some students mooted the idea of changing courses, and acknowledged that breadth subjects influenced these decisions. This indicates that the goal of the MM was being achieved to some extent, and that delayed entry was leading some students to rethink their career choices, and to make better and more appropriate choices.

Others saw Breadth subjects as having wider and more far-reaching effects in terms of their own personal growth:

I think I have become a more well-rounded person and more interested in a wider range of subjects. (#17)

Greater acceptance and understanding of different viewpoints on social, political, historical and economic principles. (#46)

Interacting with new people I think is always going to help on a personal level. Breadth subjects forced me to take a broader look at the university rather than just confining myself to on group of people. As a person I think it showed me that there are many different people, opinions, ways of thinking etc. across the university, allowing me to build new relationships with new people I wouldn’t meet. (#16)
There was also the social aspect and acknowledgement that these subjects afforded them room for personal growth and emotional wellbeing. This was a thread running through many of the responses:

*I was able to take subjects I really enjoyed and study topics I found really interesting. I also made some good friends.* (#14).

*Many subjects were very social and allowed me to meet new people.* (#11).

*Met some people I otherwise wouldn't have met* (#5).

*New friends* (#21).

This focus on fun and friendship may seem trivial to some, but in fact is a key to students thriving and succeeding, a core notion of *wellbeing*, something that is fast becoming a key element of most secondary schools’ mission statements:

*Positive relationships foster connectedness and feelings of belonging and are essential for wellbeing. These relationships are characterised by constructive interactions that provide enthusiastic and genuine support. They are important because they help us to build social and emotional skills and in turn nurture other positive, caring and respectful relationships* (p3, NSW Department of Education and Communities, 2014)

While this has become a key focus in secondary schools, it is often forgotten at tertiary institutions where students are left to fend for themselves. It is often very difficult for these teenagers to leave the nurturing environment of a secondary school where they have been swaddled if not spoon fed, only to be thrust into the cold harsh reality of real-world university. There it’s survival of the fittest - sink or swim. This was certainly my experience of university, and it does not appear to be the case that a lot has changed in the ensuing decades. One survey response highlighted this in setting out the case for the affirmative:

*It is also a wonderful transition for undergraduate students from high school to university. i.e. study broad subjects at high school, specialise at uni. It leaves a small aspect of high school life in university life which is comforting in a world where you are often only a number* (#29).

It is often the case that tertiary educators are more focused on their own research, often at the expense of their students. In their race to cram knowledge and get students through exams,
they overlook the students themselves, let alone the joy of teaching and learning. Yet sheer enjoyment of the classroom experience was an oft-cited response from students as to why they took a particular Breadth. This is another key to students achieving wellbeing; having a sense of purpose and feeling a sense of belonging at university. This is an area I will explore further:

*Enjoyment, or the presence of positive emotion, can increase a student's wellbeing. Learning occurs more effectively in the context of positive emotions. Enjoyment broadens a student's ability to think creatively, be innovative and to problem solve more effectively (p4).*

Question 16 posits the question, “*How have you benefitted educationally from taking Breadth subjects?*” A lot of the comments acknowledged the acquisition of new knowledge outside their core disciplines, which would be expected. However, an ongoing theme was the skills learned, such as academic essay writing:

*Breadth subjects I do requires me to write essays which is different to what I do in my core which require no essay writing. (#26)*

*As a science student you learn how to write academic essays as an art student would be required to do (#39).*

*Essay writing, referencing and communication (#37).*

*I now have a different set of skills which may be useful somewhere down the road. (#11).*

By far, the most interesting response was the following, which again supports the research question with regard to students learning complementary ways of thinking:

*Studying subjects where there isn't a 'correct' answer has been very beneficial for me. As I am generally a person that likes a definitive answer. So the breadth subjects I have taken have forced me to learn in different ways. (#16).*

However, not everyone responded so positively. Two of the more pragmatic, even cynical responses to whether they benefitted educationally or not were as follows, though these were in the minority:
Different way of thinking about things. But I don't really want to pay thousands to think differently about the world. I can read a thought provoking book and get the same outcome. (#18)

Not really, all the breadth subjects I have done so far have been quite pointless in the grand scheme of things (apart from personal interest). (#26).

One might argue that in the case of the latter, this was more to do with subject selection, considering the huge range of Breadth subjects on offer. With literally hundreds to choose from, finding subjects that complemented their core areas of study should have been achievable. Therefore, in response to the question posed by my research, whether or not students were actually “learning complementary ways of thinking about issues and problems, and challenging their perceptions”, I think that for the most part, students’ responses clearly indicated that this was the case.

Questions 29 and 30 go to the heart of the Melbourne Model:

If you had gone to a different university where the Melbourne Model did not apply, and Breadth subjects were not compulsory, what do you think the advantages might have been?” And Question 30 “…what do you think the disadvantages might have been?

For the most part, advantages were seen as finishing their course earlier, and with a greater degree of specialization and focus on their core subjects. While a lot of the answers were speculative in nature, a few students were quite adamant in their responses and damning of the MM:

Could have finished my course quicker without wasting time doing irrelevant subjects to my degree. (#25)

You can focus on subjects that matter to you and your major without the thought of having to find a random subject to do that can affect your GPA. (#8).

For question 30, While many spoke about Breadth subjects providing relief from stress and boredom, others demonstrated recognition of the more esoteric benefits of diversifying:

Not realising where your passions lie and adopting a straight and narrow view (#27).

I personally would never have ventured outside my course and faculty, and I would definitely be worse of from a purely personal sense and perhaps an educational sense when thinking about how 'rounded' my education would be. (#16).
Less chance to try different areas to test whether science was right for me (#1).

The main concern would be that the skill range I possess would be fairly narrow and the flexibility to combat different tasks may be somewhat under developed (#9).

I would be more close-minded about the world around me (#25)

To the specific…Sport & Education in Australia

The survey then moves from the general to the specific, looking at the subject Sport and Education in Australia, which was one the students had all studied in common. Question 18 was designed to find out why students selected this particular second year subject, posing the question ‘How did you first become aware of the Breadth subject, Sport and Education in Australia?’

Ten respondents (22%) had been recommended the subject by friends, sixteen (38%) had completed the subject Sports Coaching prior to this, and nineteen (44%) had found out about it from the Handbook or UOM website.

Question 19 then pursues this line of thought, teasing out the reasons why they chose this subject. While 95% responded that they ‘liked sport’, and 89% said the ‘content appealed’ to them, almost 50% responded that they chose SEA because it was ‘Intellectually stimulating’. It goes without saying that, as the subject has Sport as its subject matter, the content would appeal to those sports-minded individuals so this was not an unexpected response. Many of them had done the subject, Sports Coaching prior to this and for some there was the misconception that this subject would also involve hands-on activities.

However, the high response rate anticipating that it would be intellectually stimulating came as somewhat of a surprise, and a pleasant one at that, as the previous two responses clearly indicated that their overwhelming interest lay elsewhere. It would appear that the word-of-mouth recommendations and Handbook outline which approximately 45% of respondents had gone by, had piqued their interest and alerted them to the fact that this subject would be an intellectual pursuit rather than activity-based.

Question 20 then pursues this, posing the question; “Was your selection of this subject
influenced by opinions of friends or what you'd heard?” Twenty answered in the affirmative, while twenty-two answered with a firm No, so a fairly even split.

Question 21 provided some interesting responses; “Was Sport and Education in Australia what you expected? Please explain”. Six students were unequivocal in their response and felt that the course met their expectations. Three expected more actual sport and two felt there was not enough about Education and that stating this in the title was misleading. Four commented on the emphasis on the Media and felt the subject should be renamed to reflect this, which I might add has since been done:

 Didn't really expect the focus on the media as much. But that was a pleasant surprise because it is a field of interest for me (#26)

The remainder said it was different to, but in most cases far exceeded, their expectations:

 It was more intellectually stimulating than I thought (#34)

Didn't expect it to be so sociology based (for some reason) but that's the part I liked the most! (#14)

No it was better in the sense that each week we focused on topical sports issues, rather than just sport and the education system in Australia which is what I had originally imagined it to be. I found the content much more stimulating than I had imagined and I consider this to be my favourite subject that I have studied in my whole degree (and I'm in my final semester!) (#27)

Question 28 posed the question, “In your own words, what were the most positive outcomes you gained from this subject?” (SEA). The answers ranged across the board from friendships made, to learning to be a more critical thinker. Some commented on ‘easy marks’, others on how the subject was more difficult than they had anticipated. This range of responses is typical coming from such a mixed cohort of students. Finch & Gordon (2014) made the very same observation in their Breadth study, describing a similar response to the Math content in their University-Breadth subject, Statistical Literacy for Undergraduates:

Given the diversity of the student cohort...there is a diversity of feedback; for some students the subject is challenging, for others it is too light on... (p.94).

The ability to analyse issues in greater depth was another comment that emerged, as did sheer
enjoyment of the subject matter. An appreciation of this depth and diversity was reflected in some of the comments made:

- **Being more critical on how things are portrayed in the media.** (#26)
- **A well rounded education.** (#22)
- **Learning to analyse and look at what seems like straight forward articles and topics in new ways.** (#20)
- **I learnt to think about things in different ways.** (#38)

Citing the most positive outcomes gained from studying SEA, six people commented on the friendships made, with statements such as:

- **Meeting students and professors in my tutorial.** (#34)
- **I enjoyed being in a class with people I probably would never encounter as everyone is from different courses.** (#32)

Some simply put the word “Friends” as being the most positive outcome, where one word summed it up.

In terms of minor research questions, acquisition of specific knowledge is acknowledged as part and parcel of the program, so questions ascertaining whether Breadth allowed students to gain greater knowledge outside their chosen discipline and across a range of disciplines were also included in the survey. Question 22 addresses this within SEA specifically; “Focusing on my own learning in this subject, I learned new ideas, approaches and/or skills”.

For the most part respondents agreed, (65%) or strongly agreed (24%), with only 12% fence-sitting, so all in all this was a very positive response strongly affirming one of the desired goals of the Melbourne Model. There was not one statement of disagreement so while students held a range of views and opinions as to what they learned, and which they elaborated on in later questions, the majority were in furious agreement that new knowledge had certainly been acquired. Acquisition of new skills is seen as a desired outcome of Breadth, and this was achieved inadvertently it would seem.
Question 23 posed the question, “What was it about the course that you enjoyed the most?” Responses were ranked according to the top three-rated responses given by the students. Thinking outside the box (56%) rated very highly as one of the top three. Learning to present (48%), and Hearing the opinions of others (48%) also rated very highly in the top three responses.

However, it was group work and class discussions that were seen as one of the most enjoyable, stimulating and thought provoking aspects of the course according to the written responses in the follow up question; “Reflecting on your answer, can you expand on your response and explain why?”

There were a great many positive comments on this aspect of the curriculum, and this is a very positive result in the light of desired outcomes of the Breadth model. Inadvertently, students were acquiring debating skills, listening skills, new ways of thinking and in some cases, a new worldview, all very desirable outcomes, but often unacknowledged as skills:

Working together in groups was good, and actually the result of this enabled the group to get to know each other and prompted more thorough discussions and opinions in class. Without having the groups, it would result in less debate of issues. (#15).

The aspects that I enjoyed most were perhaps aspects that are not as apparent in my home faculty. These aspects I found fantastic as they allowed me to be more engaged in a group environment. (#16).

They discussed real and present issues in sport which was interesting, and different sports and people with different backgrounds gave interesting and new perspectives on the issues. (#5).

Discussing the issues in sport in a class full of people who enjoy sport led to entertaining and passionate discussion. (#7)

This goes to the heart of student-centred learning which was a key notion explored in the literature I reviewed, and a key feature of the Bologna reforms. These also emphasized interdisciplinarity and the introduction of;

...more learner-centred teaching and ...flexible curricula in terms of competencies and skills (Reichert, 2010, p.105).
Breadth and Wellbeing

Effective group work, developing friendships and taking enjoyment from subjects might seem superficial outcomes, but in the bigger picture these are very important in terms of the students’ overall wellbeing, a developing area of interest for Positive Psychologists. Positive Education and Positive Psychology are the new catch-cries of the twenty-first century. Indeed, Melbourne University’s very own Associate Professor Oades, Director of the Undergraduate Positive Psychology Breadth programs in the Centre for Positive Psychology at the MGSE emphasises;

Wellbeing is about leading a meaningful, purposeful life with positive relationships (MGSE M-Teach Partnerships Conference, 2015).

Surely this is something we all aspire to, and as educators we would like the same for our students, so it is not surprising that this is the growth industry in an area once taken for granted. Research by Associate Professor Lea Waters charts the benefits of Positive Psychology within twenty first century schools. She recognizes the need to cultivate activities and interventions that foster student well-being and academic performance, which she argues go hand in hand:

Judgments about school success typically focus on academic performance.... well being should also be an accepted indicator of school success...Not only schools, but universities need to be thinking strategically about how to embed positive psychology into the culture of ... system wide educational initiatives in order to create a positive and productive environment for students (Waters, 2011).

If Breadth courses can contribute to this overall goal of achieving student wellbeing and positive mental health outcomes, with the concurrent benefits in academic achievement, then surely that is yet another affirmation of their potential benefits and of their place in the university program.

Cumming & Nash (2015) discuss the need for students to have a sense of belonging as a key
component in promoting positive learning and a connection to their community. While this study explores these factors at the primary school level, my current research indicates that these factors are just as important at the tertiary level. Anecdotal evidence in this study certainly emphasizes the value of friendships and the positive effects of having a sense of community and of feeling connected. This is what makes people want to continue to attend day after day, week after week, month after month. In March 2014, The Age newspaper reported on university drop out rates:

Almost one in five students leave their studies nationwide by the end of first year...
They blame unhappiness with the subjects they chose, financial hardship, failing courses, and class sizes (Gilmore & Marshall, 2014).

Yet in Victoria, The UOM boasted the lowest attrition rate of just 5%. Acting vice-chancellor Professor Pip Pattison attributed this success to three things:

One, we offer courses that are attractive to great students. Two, we're very clear about the requirements to undertake courses and have a rigorous set of prerequisites compared with other universities and three, we have excellent policies around ensuring that we get early indicators of students going off track, and strong processes for talking to students and getting them back on track (Gilmore & Marshall, 2014).

No mention here of Breadth subjects, yet surely they have a part to play if they are the defining difference between the UOM and other Australian universities? If programs such as Breadth are proven to be a contributing factor in stemming the tide of student drop-outs, and can be linked to increased retention rates in university courses, this may be yet another benefit of the Melbourne Model. Cargill & Kalikoff cite evidence linking interdisciplinarity to a range of benefits which “can be a valuable method to improve student performance, increase student retention and build learning communities” (p.90).
CHAPTER 6

Drawing the discussion together and recommendations

Breadth and its place in the twenty-first century

This study has called into question the Melbourne Model and the legitimacy of Breadth subjects within the UOM curriculum. A recent lecture on Positive Psychology (Oades, 16/07/2015) piqued my interest in the changing role of education in the twenty-first century and caused me to consider my own research in the light of these findings. Casting a spotlight on my own study has only served to reinforce my views on the wider value of Breadth subjects in a rapidly changing world. Professor Oades quoted the newly launched NSW Department of Education’s Wellbeing Framework for Schools, which rests on three successive pillars: Connect, Succeed and Thrive.

Wellbeing, or the lack of it, can affect a student’s engagement and success in learning (NSW Department of Education and Communities, 2014, p2).

This document explains how wellbeing can be shaped by a number of factors, first and foremost, choice, something which Breadth aims to provide:

Choice is important because it impacts positively on a student’s learning and engagement in schooling. It contributes to enhanced motivation, interest and commitment to tasks. The provision of choice supports self-regulation, self-discipline and achievement. When students have choice and opportunities to engage in activities that are of interest and value to them, their wellbeing is enhanced (NSW Department of Education and Communities, 2014, p3).

Students might argue that this so called ‘choice’ is thrust upon them within the Melbourne Model, but with the enormous range of subjects to choose from, and the benefits associated with choice, evidence suggests that surely this cannot be such a bad thing.
Emeritus Professor Patrick Griffin, founder of the Assessment Research Centre at the MGSE, UOM, recently delivered a lecture at the Master of Teaching Partnerships Conference 2015, on “21st Century skills: Why, what how”. He spoke about the old standard of the three Rs being replaced by the four Cs: Communication, Collaboration, Creativity and Critical thinking. The lecture highlighted evidence of changes in the workplace and the emergent ‘knowledge economy’ requiring changes in the skill set of the workforce:

> A recent survey of business executives identified problem solving, team working and communication as top required skills, and predicted that demand for these skills would grow (M-Teach Partnerships Conference, 16/07/15).

Powell, Berhard & Graf (2012) endorse this in their discussion of globalization and the rise of information technology. So too does Knight (2012) whose research recognizes the benefits of academic programs which “seek to cultivate an array of abilities in their graduates, rather than just one” (p.2).

So, has the central problem been assessed and have the four major questions I set out to explore been answered? **How effective has the UOM’s Melbourne Model been in meeting its brief in terms of the success of Breadth subjects?**

**a) Do Breadth subjects create depth and greater autonomy in terms of the students’ body of knowledge?**

The very fact that students are compelled to take a series of subjects outside their main learning area means they are getting variety, and hopefully depth or “breadth” in their education. Greater autonomy is achieved by students being forced out of their comfort zone and while there was some initial reluctance on the part of many, responses to questioning indicated that they felt they had benefitted through gaining a worldlier approach to their education. Rather than narrowing the field they had widened it. For some this gave them greater autonomy or freedom in being able to choose, and as discussed earlier in the light of student wellbeing, choice can only be seen as a good thing.

**b) Do Breadth subjects create depth and greater autonomy in students’ approach to**
learning and their level of skill acquisition?

The Melbourne Curriculum is designed to meet the challenges of the twenty-first century and appears to be meeting this part of its brief. SEA as a Breadth subject delivers with its emphasis on weekly reading circles, group work, shared resources and the need to hone communication skills in both small and large group situations. Communication, collaboration and critical thinking are the very foundations of the course and support the goals of the Melbourne Model:

*Breath subjects allow you to gain knowledge and understanding across a broader range of disciplines, enabling you to develop insight, experience, and new ways of thinking in areas distinct from the main fields of study in your degree* (UOM Handbook, 2015).

As a Case Study of Breadth, SEA can be shown to have met not only its brief, but to have gone well beyond that. In teaching broader twenty-first century skills it has furnished students with the skills and autonomy to meet the challenges of a more diverse world and an unpredictable future.

(c) Do Breadth subjects create complementary ways of thinking about issues and problems?

The Literature review certainly viewed Breadth and similar programs as complementing students’ studies in their degree program, and this research supported that position. One of the great benefits of breadth studies appeared to be that because students were from a completely different field of study, the approaches to tasks were quite different. For example, Science students used to writing reports found themselves quite challenged when asked to write an expository essay. However, they could see the benefits of the task, and came to understand how the different styles were appropriate for different purposes. They were also able to see the possibilities for future application. Students from maths or accounting backgrounds who were used to numbers being absolutes, found classroom discussions quite challenging, where a range of opinions were expressed and equally valued.
However, they also found the experience eye-opening and enjoyable, and it provided them with a different approach to tackling problems.

(d) Do Breadth subjects challenge students’ perceptions of the Melbourne Model and Breadth?

While the Melbourne Model was not what a lot of students were expecting, and challenged their initial perceptions of tertiary education, I think this study strongly demonstrates that students were more than happy with the outcomes and that the university goals were fully met. Many were unaware that Breadth subjects even existed until they enrolled, and that they were part and parcel of the new model. Others had a vague understanding of their purpose though many saw them as an insignificant part of the program, a necessary evil or a bludge. According to this research, very few retained this belief once they had completed a breadth subject.

In Conclusion:

Summing up, I can say with some confidence that the evidence points to Breadth in general, and SEA in particular, as having been a resounding success. Students were overwhelmingly satisfied with, and supportive of the Melbourne Curriculum Model and with the role of Breadth subjects within that. Expectations were met if not surpassed.

The Melbourne Model and Breadth as a core component of that provide an area ripe for further research. Questions of modified academic pathways for students, issues of wellbeing and questions about retention rates at University were all were raised in the course of this investigation. Naysayers might argue that Breadth is a waste of time and a distraction from the real work of universities, but I would argue otherwise. In fact, this research indicates that Breadth contributes significantly to students’ measures of wellbeing and their overall success at University. It has also raised questions with regard to the range and scope of Breadth subjects available to students, and whether more regulation may be required to ensure measures of success are consistent across the board. Increased regulation and more effective moderation of the plethora of subjects emerging may be something worth considering, while still retaining the myriad of choices available to students.
The Bologna reforms have set the pace and tone for recent changes and initiatives in higher education across the developed world. A slimmer, trimmer and more streamlined model of education has emerged, with an emphasis on consistency and inter-changeability. Breadth and depth at the undergraduate level are promoted, with specialization taking place at the post-graduate level in line with the North American Model of higher education. The University of Melbourne has followed the trend, adopted the model and modified the program in their unique and aptly titled Melbourne Model of higher education.

Through the introduction of Breadth subjects and an emphasis on interdisciplinary subject selection, Melbourne University has led the way in promoting a more liberal education for their undergraduate students. However, limitations of the research were apparent and included a limited number of survey respondents which in turn limited the possibilities for accurate quantitative analysis. Furthermore, all of the survey respondents were drawn from a specific pool of students in that they shared a common interest in sport. This may not be an accurate reflection of the student body at the UOM.

As a case study with the emphasis on a phenomenological approach and qualitative outcomes, the analysis hinged largely on the number of surveys completed and the quality and quantity of the resultant data. Maxwell (2008) emphasises the need to acknowledge the use of simple numerical results derived from the data as ‘quasi-statistics’, and to “make explicit the quasi-statistical basis of their conclusions” (p.245). Every research model has its imperfections and this has proven to be one of the limitations of this model. The very nature of qualitative research as compared to quantitative means there will be limited quantifiable data, which reduces generalizability. Results will be ‘quasi-statistical’.

Furthermore, the survey data may prove to be less detailed because of the limited number of responses. I have described open-ended questions in the survey as one of the benefits, but Patton (1990) outlines the drawbacks of this approach:

There are severe limitations to open ended data collected in questionnaires, limitations related to the writing skills of respondents, the impossibility of probing or extending responses, and the effort required of the person completing the questionnaire (p. 24).
Interviews were originally to follow on from the Survey as a form of purposeful sampling based on responses that were ‘information rich’. However, I had to make do with those 46 surveys alone. Slow responses to surveys and the resultant time constraints ensured that there would be no further interviews or focus groups. This is where this research could well be seen to serve as a *pilot study*. Follow-up interviews and focus groups would be an integral part of any future study.

Future research might also seek to survey a broader cross section of UOM students, and widen the net to include a balance of race, ethnicity and gender that more accurately reflects the composition of the whole student body. Every endeavour would be made to survey greater numbers of students in total in order to increase the validity of the conclusions reached.

While it is still early days, this current research certainly indicates that the Melbourne Model has been a success, and that Breadth subjects have proven to be an integral part of that success. However, the jury is still out on and there is certainly further scope for research as the first graduates emerge at the end of this ‘experimental’ phase and enter a brave new world.
REFERENCES


Appendix A

MELBOURNE GRADUATE SCHOOL OF EDUCATION

Consent form for persons participating in a research project - Investigating students' expectations of a specific Breadth subject (SEA), whether these expectations have been met and whether these expectations are in accordance with the desired aims of the University of Melbourne's Melbourne Curriculum for Breadth, introduced in 2008.

Name of participant: ____________________________

Name of investigator(s): Anna Krohn, Melanie Nash

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.

2. I understand that after I sign and return this consent form, it will be retained by the researcher.

3. I understand that my participation will involve completion of a questionnaire and I agree that the researcher may use the results as described in the plain language statement.

4. I acknowledge that:
   (a) The possible effects of participating in the questionnaire have been explained to my satisfaction;
   (b) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;
   (c) The project is for the purpose of research;
   (d) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;
   (e) I have been informed that the written questionnaire will be stored at University of Melbourne and will be destroyed after five years
   (f) My name will be referred to by a pseudonym in any publications arising from the research;
   (g) I have been informed that a copy of the research findings will be forwarded to me, should I agree to this.

I consent to this questionnaire being used in the research □ yes □ no (Please tick)

I wish to receive a copy of the summary project report on research findings □ yes □ no (Please tick)

Participant signature: ____________________________

DHREC 1341046.1 07/08/2014 Version 1
Appendix B

To whom it may concern,

I am conducting a research project as part of my Master Of Education -Research, and I will be writing a thesis on the basis of the material resourced and the research conducted. The aim of this project is to determine what students were looking for in a Breadth subject and whether expectations were met. I am specifically looking at EDUC20068 Sport and Education in Australia, a subject I have co-developed and taught for the last 4 years. I am keen to know whether student expectations matched outcomes, and whether anticipated goals were attained. This is a qualitative study and relies on student feedback.

The project is significant in light of the recent introduction of the Melbourne Curriculum Model to the University of Melbourne. My aims are to ascertain to some extent the success or otherwise of the Breadth Program as a key element of the new curriculum model.

If you agree to participate I will email a short questionnaire as a means of obtaining raw data. This should take no more than 15-30 minutes to complete. As a follow up I may arrange for a further semi-structured interview, to be conducted in person or over the phone, based on the questionnaire, simply asking you to expand on your answers. Again, this should take no more than 15 minutes.

Data will be analysed and written up for a Masters Thesis, a copy of which will be forwarded to participants once it is completed. Participants will not be identified in the work and pseudonyms will be used. Questionnaires will be securely stored in a locked filing cabinet and will be destroyed/shredded after 5 years.

If you have any questions you can contact me, Anna Krohn on 83448295 if any further explanation is required.

If you have any concerns regarding the conduct of the research project you can contact the Executive Officer, Human Research Ethics, the University of Melbourne, Vic 3010, ph. (03) 8344 2073; fax: (03) 9347 6739.

Anna Krohn
Researcher/Student
Melanie Nash
Responsible Researcher
Appendix C

*The Melbourne Curriculum Model, Breadth subjects and "Sport & Education in Australia" as a specific case study.*

1. Breadth subjects allowed me to gain knowledge and understanding across a broader range of disciplines

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2. Breadth subjects allowed me to develop insight, experience and new ways of thinking in areas distinct from the main fields of study in my degree.

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3. Breadth is more about the skills acquired than the knowledge learned.

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4. Breadth subjects lack coherence and depth.

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5. Breadth subjects gave me an opportunity to diversify prior to specialization.

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6. Breadth subjects provide relief from the intellectually deadening effects of excessive specialization.

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7. By being provided with opportunities to study across disciplines, I am more likely to understand and respect the work and values of other disciplines.

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8. The Melbourne Model left me feeling academically channeled.

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9. Breadth subjects are an unnecessary distraction from my specialist subjects.

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10. Reflecting on the unique structure of the University of Melbourne undergraduate program, the Melbourne Model, would you recommend this to others? If so why? If not, why not?

11. What did you know about Breadth subjects and the Melbourne Model before you started your University of Melbourne course?
12. How did your views of Breadth change once you took a Breadth subject?

13. What do you see as the advantages of taking Breadth subjects?

14. What do you see as the disadvantages of taking Breadth subjects?

15. How have you benefitted personally by taking Breadth subjects?

16. How have you benefitted educationally from taking Breadth subjects?

17. Do you think Breadth subjects should be compulsory?

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18. How did you first become aware of the breadth subject *Sport and Education in Australia*?

19. Rank in order the reasons why you chose this subject:

- [ ] I like sport.
- [ ] I believed it would be intellectually stimulating.
- [ ] It was part of a Track.
- [ ] It fitted in with my timetable.
- [ ] I did Sports Coaching as a Breadth subject and enjoyed that.
- [ ] The subject was a good match with my major course of study.
- [ ] The subject matter and content appealed to me.

20. Was your selection of this subject influenced by opinions of friends or what you'd heard? In a few words explain how or why?

21. Was *Sport and Education in Australia* what you expected? Please explain.

22. Focusing on my own learning in this subject, I learned new ideas, approaches
and/or skills

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23. What was it about the course which you enjoyed the most?

- [ ] Group work
- [ ] Examining newspapers and discussing current affairs
- [ ] Debating the issues
- [ ] Doing something outside your main field of study
- [ ] Thinking “outside the box”
- [ ] Engaging in class discussions
- [ ] Hearing the opinions of others
- [ ] Meeting students from other faculties
- [ ] Learning to present material in new ways

24. Reflecting on your answer above, can you expand on your response and explain why?

25. Was Sport and Education in Australia better than you expected, worse than you expected, or about what you expected?

- [ ] A great deal better
- [ ] Quite a bit better
26. This Breadth subject has enhanced my overall learning experience.

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27. Participating in the subject Sport and Education enhanced my sense of being a part of the wider university community.

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28. In your own words, what were the most positive outcomes you gained from this subject.

29. If you had gone to a different university where the Melbourne Model did not apply, and Breadth subjects were not compulsory, what do you think the advantages might have been?

30. If you had gone to a different university where the Melbourne Model did not apply, and Breadth subjects were not compulsory, what do you think the
disadvantages might have been?