

## **Students' Evaluation of an Online Postgraduate Property Program**

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### **Abstract**

Property students embarking on their postgraduate studies come from a wide variety of backgrounds. Most of them are of mature age and already working in the property industry nationally and internationally. Many are of the so-called Net Generation and are highly computer literate and expect to engage with their studies using computer systems. Following a review by the accrediting body (the Australian Property Institute) the Master of Property program at the University of Newcastle, Australia has been redeveloped to embrace full online delivery of all courses, replacing traditional paper-based distance learning practices.

This paper reports on an evaluation of the effectiveness of the online delivery mode from the perspective of students. It first describes how the property courses are delivered through the Blackboard learning management system. It then analyses the effectiveness of the six major online delivery mechanisms: learning materials, study guides, discussion board postings, weekly reviews, case studies and assignment submissions. The analysis is based on data collected from student surveys and shows that students valued the manner in which Blackboard facilitates and supports learning. The survey data also shows that all six major online delivery mechanisms are considered as useful by students. The MOP students polled were overwhelmingly satisfied with online delivery and found the subject matter to be intellectually challenging and that their courses improved their knowledge and understanding.

**Keywords:** property education, online delivery, student evaluation

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# **Students' Evaluation of an Online Postgraduate Property Program**

## **INTRODUCTION**

Property students embarking on their postgraduate studies come from a wide variety of backgrounds. Most of them are of mature age and already working in the property industry nationally and internationally. Many are of the so-called Net Generation and are highly computer literate and expect to engage with their studies using computer systems and cyber technologies. Barnes et al. (2007) cite Bonamici, Hutto, Smith, and Ward (2005) claim that the current 'Internet' or Net Generation is unique in that it is the first to grow up with digital and cyber technologies. They observe that not only are Net-geners acculturated to the use of technology, they are saturated with it. By the time s/he has reached 21 years of age, the average Net-gener will have:

- (spent) 10,000 hours playing video games,
- (written / responded to) 200,000 e-mails,
- (spent) 20,000 hours watching TV,
- (spent) 10,000 hours on cell phones, and
- (spent) under 5,000 hours reading.

The final point warrants further consideration. Anecdotal evidence suggests that many lecturers teaching property courses may have unrealistic expectations of their students' reading skills. If Barnes et al.'s (2007) data are indicative of Australian university students, lecturers need to recognise that the skills students enter university with are evolving and that many prefer to use digital materials rather than paper.

The Master of Property (MOP) program at the University of Newcastle, Australia, responds to the preferences of the Net Generation. It has been redeveloped as a fully online program, replacing the traditional paper-based distance learning mode previously used. This paper evaluates the effectiveness of the online delivery mode from the perspective of student experience. It initially describes the delivery of courses to MOP students through the Blackboard learning management system, and then analyses the functionalities of the six major online delivery mechanisms based on data elicited from student evaluation surveys.

## **FULLY ONLINE POSTGRADUATE PROPERTY PROGRAM**

As the property industry has evolved, many practitioners have moved into professional / management roles. Many of these individuals are graduates of other disciplines (e.g. engineering, business, finance, management, construction, etc). There is a demand for high level qualification that develops the skills and credentials of property professionals. While programs at technician and undergraduate levels exist, there is still a largely under-satisfied demand for post-graduate qualifications in this field. The Master of Property program (MOP) in the School of Architecture and Built Environment, at the University of Newcastle, Australia, aims to develop the next generation of property professionals. It equips them with the knowledge, skills and abilities to work with major property managers, developers, investors, financiers and other key players to create wealth through property portfolio and property development management.

Problem-based learning (PBL) is central to the educational philosophy in the School of Architecture and Built Environment. Both the Architecture and Construction Management undergraduate programs have been incorporated PBL approaches successfully for many years. The PBL approach adopted in the MOP program builds on an established body of

knowledge (Boud and Feletti, 1991), which is builds the effectiveness and relevance of students' learning. Students should be "empowered learners" who have the capacity for autonomous learning and an inner drive for continuous and lifelong learning (Candy et al., 1994). According to Candy et al (1994), the two major advantages of PBL approaches are:

- Student Centredness: PBL courses are designed and delivered in a learning environment that allows each individual learner to achieve their full potential
- Future Proofing: PBL uses active learning which develops students' skills to operate in knowledge-based environments (creating, locating, evaluating, and applying knowledge)

The MOP program was first delivered in 2003 in a traditional paper-based distance learning mode. Following a review by the accrediting body (the Australian Property Institute) the program has been redeveloped in a fully online delivery mode commencing at the start of 2009. The program comprises five professional courses and two research courses. The five professional courses are:

- (1) Corporate Real Estate Management
- (2) Property Economics and Finance
- (3) Property and Facilities Management
- (4) Property Law and Planning Legislation
- (5) Property Investment and Evaluation

The two research courses are (1) Property Research Development and (2) Property Research Report. The program structure is illustrated in Figure 1.

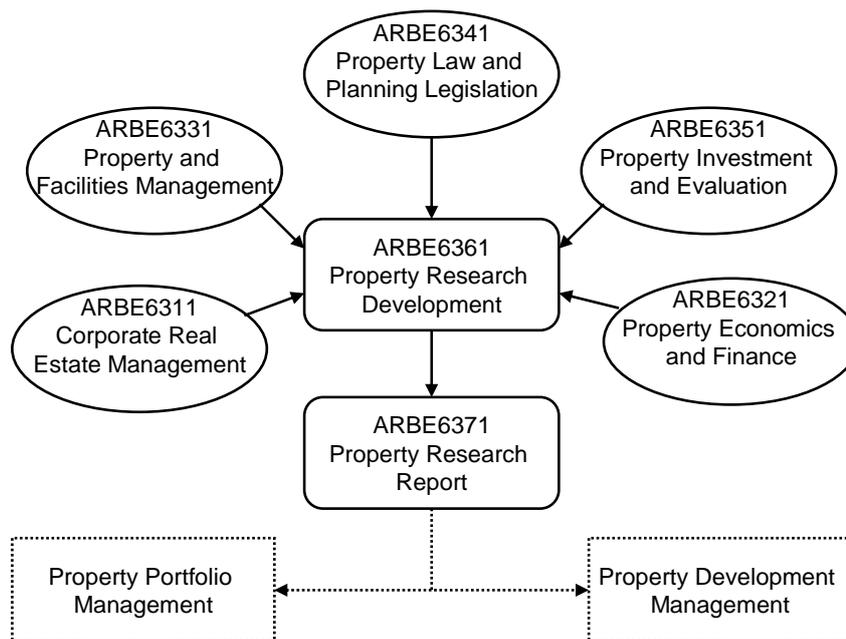


Figure 1: Structure of the MOP Program

## Blackboard

Blackboard is the learning management system used to deliver the MOP. Our University has been using this system for several years, and staff have developed expertise in most aspects of online pedagogy (Sher and Williams, 2007; Williams et al., 2008; Hodgson et al., 2009). The Blackboard course websites serve as the centre of all the activities associated with on-line delivery of the courses. Chief amongst these are six major online delivery mechanisms: learning materials, study guides, discussion boards, weekly reviews, case studies, and assignment submissions.

### ***Learning Materials***

Prior to the commencement of each course, learning materials are uploaded onto Blackboard course websites. These include book chapters, journal articles, conference papers, industry information, etc. In addition, various up-date learning materials are uploaded to Blackboard during the duration of the course. These materials provide further information and direction to enable students to successfully complete course assessment items.

### ***Study Guide***

The study guide provides an introduction to each course. It highlights the importance of the recommended learning materials and recommends how students should progress through these materials. The study guide also directs students to the additional learning materials and identifies additional resources, including references, websites, etc.

### ***Discussion Boards***

The discussion boards provide facilities which enable students to communicate and interact with their lecturers, tutors and peers. It is where students participate in asynchronous discussion forums and discuss weekly tutorials and other course related issues. When a student posts a message on a discussion board, they are potentially accessing all the students enrolled on the course. Inevitably some of these students will have similar queries, whilst others will be able to suggest appropriate responses to the issues raised.

### ***Weekly Reviews***

Every week students are required to submit a review of an article, book chapter or conference paper on a discussion board. The review needs to contain full bibliographical details, a short summary and some comments about the usefulness / relevance of the resource in question. It aims to develop students' abilities to critically evaluate resources and, in addition, provides a valuable annotated bibliography of materials directly relevant to a given topic for all students to use. There are ten reviews in each course and these contribute 20% of the course marks.

### ***Case Studies***

Problem-based learning (PBL) is central to all MOP courses. It ensures that students have opportunities to assimilate and exercise newly acquired knowledge, understanding and skills by engaging in a variety of different exercises. Contemporary industry case studies are used as scenarios for assignments. These real life examples ensure that courses maintain industry relevance and meet the demands of the property industry.

### ***Assignments***

There are two assignments in each course. Combined these contribute 80% of the marks for the course. Each assignment requires students to provide solution(s) to real-life scenarios. All assignments are submitted in digital format through Blackboard. Once submitted, they are checked using "Turnitin" (proprietary online software which checks students' work for plagiarism). Assignments are assessed by lecturers and feedback comments and marks are returned to students through Blackboard.

## **METHODOLOGY**

Internal policies at Newcastle University require degree programs to be reviewed on a five yearly basis. MOP staff sought more timely feedback and administered an online survey to elicit students' view of the effectiveness of the online delivery mode. The use of such questionnaires is common practice in Australian Universities and this is consistent with contemporary practices internationally (Kahn and Baume 2003).

George and Cowan (1999) suggest that student feedback is essential to enable lecturers to understand whether attempts to improve students' learning and educational experiences lead to improvements. Staff in the School of Architecture and Built Environment continually seek to improve the content and delivery of the courses they teach. This is initiated by regular evaluations of courses and teaching and results in courses and programs that evolve and improve to meet the demands of industry and students. The importance of regular feedback from students in property education has also been recognized by Callanan and McCarthy (2003).

The questionnaire was designed to ascertain students' views of the functionalities of the online delivery mechanisms used. It was administered via a Blackboard website during Trimester 1 and 2 in 2009. Students' participation was voluntary and their responses were anonymous. A total of 33 valid responses are collected from a student population of 48 (i.e. the response rate was 69%). Sixty-seven percent of respondents were male and 61% were aged between 25 and 34. Forty-five percent were based in Sydney, whilst 12% were overseas students from Asian countries. The general profile of the students sampled is shown in Appendix A.

## DATA ANALYSIS AND DISCUSSION

This section discusses students' responses to questions about the online delivery mechanisms used to deliver the MOP.

### Blackboard

The following three questions were asked to gain a general understanding of the manner in which students used Blackboard:

- *Where do you access to Blackboard?*
- *How frequently do you access Blackboard?*
- *How useful do you find it to access Blackboard for your learning in the course?*

Figure 2 shows that the vast majority of students accessed Blackboard from home (79%) compared with only 21% from work. This outcome was not anticipated, as most MOP students are employed in the property (or related) industry, it was expected that a sizeable proportion of them would remain at work and access Blackboard from there. This result contrasts to earlier surveys conducted with undergraduate distance learners, and arguably indicates that broadband Internet access is becoming more prevalent and reliable from home.

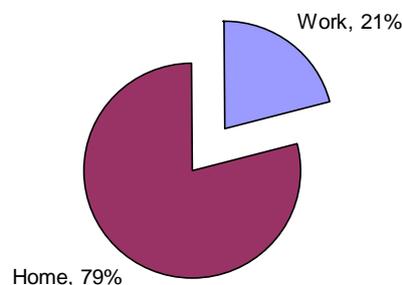


Figure 2: Access Location to Blackboard

The results shown in Figure 3 indicate that the majority (62%) of students say that they access Blackboard on a regular basis (between 2 to 4 times a week per course). Almost one-third (31%) access Blackboard on a daily basis, whilst 6% access it on a weekly basis. It is clear that all students do use Blackboard to support their studies. It was not possible to establish whether these perceived usage rates align with students' actual use of Blackboard (as the manner in which Blackboard records usage is on a course by course basis, and the survey polled views for the entire program). Cornish et al. (2009) observe that access traffic may be high immediately prior to an assignment hand-in date and low during the first week of the course when no submissions are due.

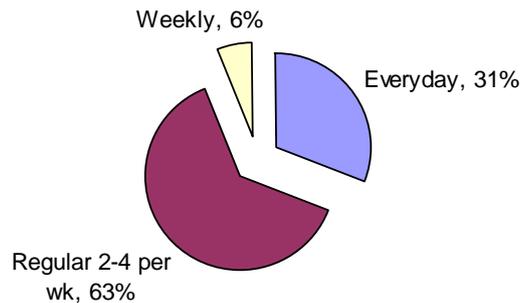


Figure 3: Frequency of Accessing Blackboard

Figure 4 shows that students find Blackboard to be “very useful” (42%) or “useful” (42%) in supporting their learning. When combined, these two categories indicate that the vast majority (84%) find that Blackboard helps them in their studies. This highlights students’ recognition of Blackboard as a learning aid.

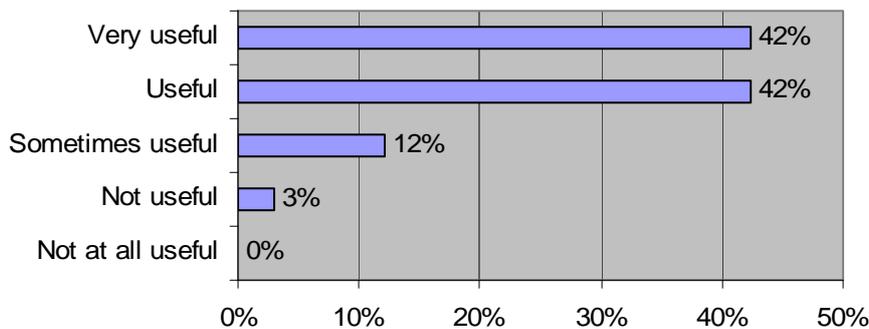


Figure 4: Usefulness of Accessing Blackboard

### Online Delivery Mechanisms

Students were asked about the usefulness of the six major online delivery mechanisms provided by Blackboard (learning materials, study guides, discussion boards, weekly reviews, case studies, and assignment submissions). For example, they were asked “*How useful do you find the learning materials for your learning in the course?*” Students could respond (a) very useful, (b) useful, (c) sometimes useful, (d) not useful, and (e) not at all useful. Table 1 outlines the results of the usefulness of the delivery mechanisms.

Table 1: Survey Results of the Usefulness of Online Delivery Mechanisms

Online Delivery Mechanisms	(a) Very Useful	(b) Useful	(c) Sometimes Useful	(d) Not Useful	(e) Not at all Useful
Learning Materials	33%	55%	12%	0%	0%
Study Guide	27%	58%	12%	0%	3%
Discussion Boards	15%	58%	18%	6%	3%
Weekly Reviews	39%	42%	18%	0%	0%
Case Studies	30%	42%	21%	3%	3%
Assignment Submissions	36%	55%	6%	3%	0%

For convenience, the data for “very useful” shown in Table 1 are presented again in Figure 5. The highest scoring mechanisms (Weekly Review [39%] and Assignment Submission [36%]) relate to assessment and provide a clear insight into students’ priorities. The data demonstrates that assessment is a strong motivator for learning and that these activities shape the nature and form that learning takes, as recognised by Anderson and Krathwohl (2001).

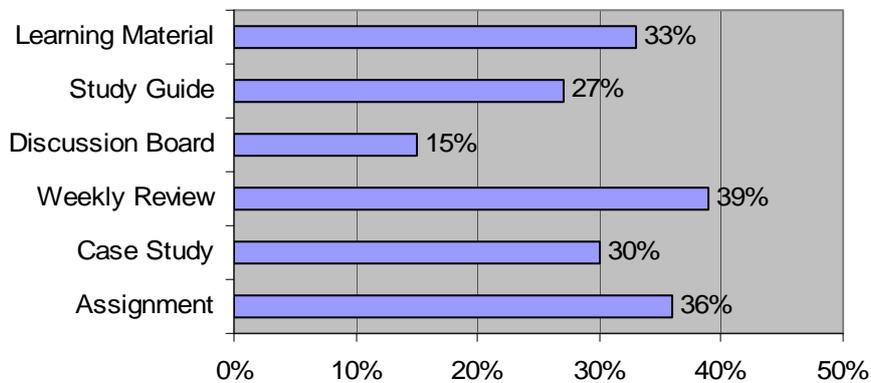


Figure 5: Results of the Very Useful Category of the Online Delivery Mechanisms

The data for “very useful” and “useful” for the six online delivery mechanisms (as shown in Table 1) are combined into a single bar in Figure 6. The resulting combined usefulness results ranged from 72% to 91%.

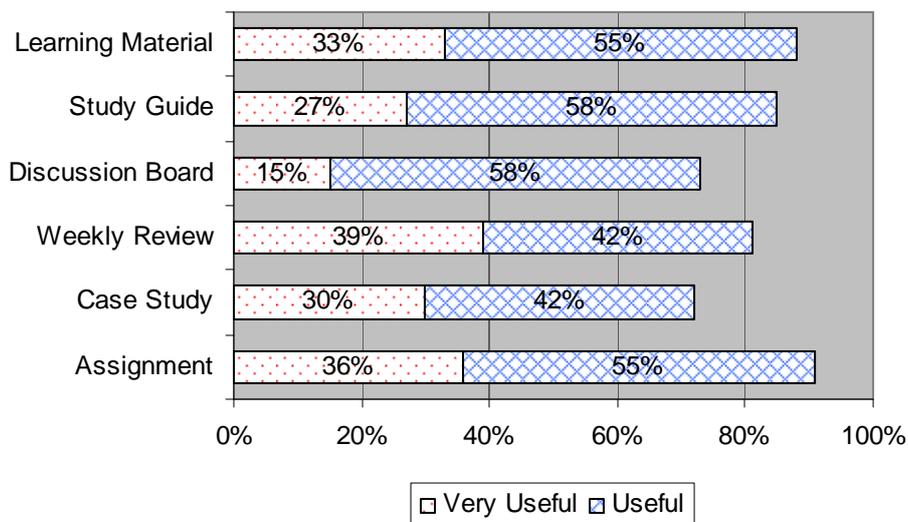


Figure 6: Combined Usefulness of Online Delivery Mechanisms

The highest score is for “Assignment” (91%) followed by “Learning Material” (88%). A key feature of the MOP is that it is fully online with students submitting their assignments electronically. It is therefore understandable that the assignment submission mechanism plays an important role in learning and assessment. As already mentioned, online teaching and learning not only involves electronic submission of assessment items, it incorporates checking these submissions for plagiarism (using “Turnitin”), as well as digital facilitation of assessment and provision of feedback (through “GradeCentre”). These online activities relieve students from having to accommodate the delays inherent in postal deliveries, though online submissions are not without their own challenges. In addition, having learning materials available in an electronic (pdf) format supports students’ learning activities. Not only do students find it convenient to have these resources available, there are clear advantages to being able to search electronic documents for keywords or phrases, (either singly or in combination). Blackboard exposes students to the range and availability of resources available via the Internet and encourages them to continue to locate additional materials to support their PBL activities. However, some students have been found to become reliant on the materials provided. These individuals need further encouragement and support to extend their knowledge by searching for other resources.

It is apparent from Figure 6 that the lowest combined usefulness score is for case studies (72%), and the second lowest score is for discussion boards (73%). Case studies are an integral part of our PBL approach. In each course, students are asked to analyse a real life case study and to draw on these to arrive at specific solutions to a scenario. Although the documentation supplied to students is comprehensive, there are many assumptions and decisions that students need to make. Some find it difficult to interpret case study materials and this may have influenced their evaluation of the usefulness of these resources. Discussion boards facilitate communication and interaction between students themselves, and between students and their lecturers and tutors. However, not all students engage with discussion boards in a vigorous way. Those that do post many queries and generate perceptive and challenging discussions with their peers and with staff. However, other students are passive and limit their interactions to simply reviewing the postings of others. There are numerous reasons why this may be the case. For example, these students may be concerned about asking superficial questions or find sufficient value in observing the questions and answers of others. It is likely that this may have affected students’ evaluation of the usefulness of discussion boards.

Overall, the combined usefulness results of all six major online delivery mechanisms are above 70%. This demonstrates that the majority of students appreciate and value the online delivery mechanisms used in the MOP.

## **Learning experience**

The survey provided three statements about the overall learning experience in the MOP, and asked students to indicate the extent of their agreement. The statements were:

- *The substance of this course was intellectually challenging.*
- *I have improved my knowledge of the topics/material covered.*
- *Overall, I am satisfied with the quality of this course.*

Students could: (a) Strongly agree, (b) Agree, (c) Neutral, (d) Disagree and (e) Strongly disagree. Figure 7 combines the two categories (a) Strongly agree and (b) Agree into a single bar to show the overall magnitude of agreement.

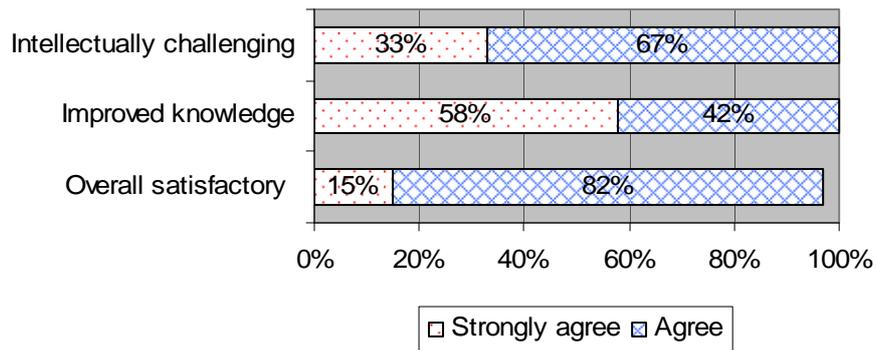


Figure 7: Learning Experience

It is gratifying for MOP staff to note that student perceptions of “intellectually challenging” and “improved knowledge” scored 100%. This provides convincing evidence that students found the substance of the MOP courses to be intellectually challenging and that, on completion of these courses, they felt that they had improved their knowledge of the topic areas. For the “overall satisfaction” question, 97% of students agreed that they are satisfied with the quality of the courses. These overwhelmingly positive results show that students support the online delivery of the MOP program.

## CONCLUSION

Online delivery of university level education is challenging. This paper has described how we have used Blackboard to deliver courses on our Masters of Property program. Six major online delivery mechanisms were identified and their functionalities explored. A survey of students’ opinions was conducted to evaluate the effectiveness of Blackboard and these mechanisms. The results show that most MOP students access Blackboard from home regularly (two to four times a week), and that the majority find it assists their learning.

An analysis of the online delivery mechanisms shows that students valued the manner in which Blackboard facilitates and supports assessment items (through online submission of assignments, plagiarism checking and feedback). The students also appreciated the learning materials provided on Blackboard. However, some students found it difficult to interpret trends and make assumptions based on the case study materials provided. Furthermore, although the discussion boards provide an important area for communication and interaction, some students did not engage in an overt manner. The survey also showed that all six major online delivery mechanisms are considered as useful by students. The MOP students were overwhelmingly satisfied with online delivery and found the subject matter to be intellectually challenging and the courses improved their knowledge and understanding.

Student surveys are reliable tools for assessing the effectiveness of course delivery from a student’s perspective. However, they should be conducted on a regular basis to track changing expectations of students as well as new developments in online delivery. This initial study has shown that further research is needed to explore ways to improve the effectiveness of online delivery. Further investigation is needed into how modern information and communication technologies can help to deliver online property programs.

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## APPENDIX A: General Profile of Responded MOP Students

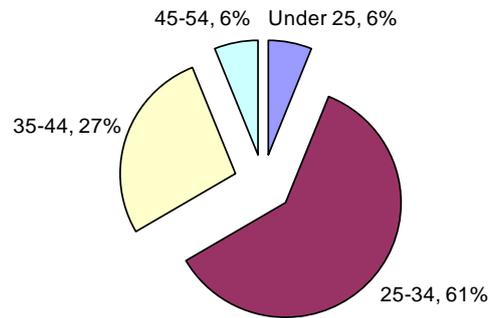


Figure A-1: Age Group of MOP Students

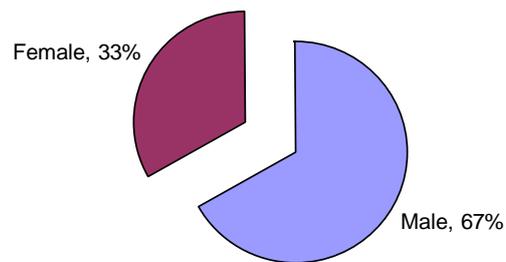


Figure A-2: Gender of MOP students

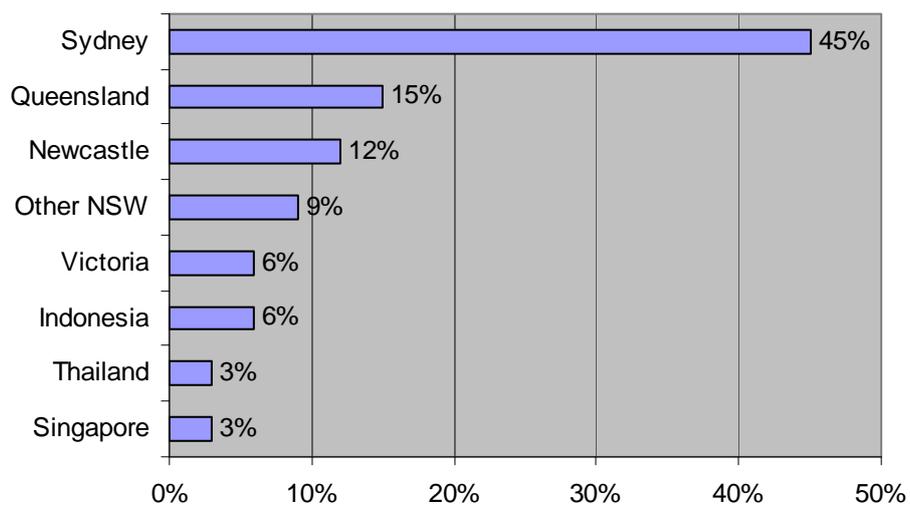


Figure A-3: Location of Students