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FUNCTIONAL LEARNING FOR PROPERTY STUDENTS

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ABSTRACT

Through fundamental changes in structure and financing the education services industry has recently grown to be one of Australia's largest exports, with new more diverse student cohorts entering higher education each year. This presents opportunities for astute university and program leaders to refine the education offering and look to innovative means to constructively align intended learning outcomes, functional teaching/learning activities, and formative assessment.

In contrast, property discipline leaders in Australian universities have traditionally been slow to adopt new teaching practices. This is evidenced by little change in the delivery and assessment of property knowledge over the past decade with lecturing, note taking and examinations being the core of many programs. As student numbers increase, this traditional delivery method is at risk of becoming passive with student grading optimised through inductive memorisation rather than participatory learning or actually reaching the prescribed learning outcomes.

This paper investigates the declarative (university) and functional (professional) nature of the knowledge taught, and the teaching methods adopted, in property programs at Australian universities. Specifically the research reviews course outlines noting trends in intended learning outcomes and graduate attributes, teaching delivery methods, and assessment items.

Recommendations include the promotion of innovative learning activities that lecturers and tutors may adopt to enhance the learning environment for university students studying property.

Keywords: Functional knowledge, declarative knowledge, property education, learning outcomes, assessment, teaching methods.

INTRODUCTION

There are varied opinions across academia as to the effectiveness or otherwise of property education. With respect to Australia, Hefferan and Ross (2010) and Newell & Susilawati (2010) note that student satisfaction is quite high, which counter the direction of the primary institute, the Australian Property Institute (API), who initiated a Future Professional program 'to bridge the ever increasing gap between academic rigour and professional competency' (API 2011).

This argument is particularly relevant in the wake of the global financial crisis with the Financial Crisis Inquiry Commission identifying the collapse of the housing bubble – fuelled by low interest rates, easy and available credit, scant regulation, and toxic mortgages as the spark that ignited the string of events (FCIC 2011). And, if the stakeholders in our real estate and property education extend to the community or general public as suggested by Boyd (2005) then, it may be concluded that property academics have a role in educating to mitigate such social and economic disasters in the future.

Interestingly there is a general dearth of literature in the property discipline pertaining to the role of higher education providers in avoidable financial disasters. This could be due to many factors: perhaps the topic is taboo and recorded reflection would be counterproductive to our industry; perhaps we consider our role as a knowledge provider to a select minority (our students and respective stakeholders limited to alumni, employers, institutes and faculty); or perhaps we more broadly see our role as facilitators of learning without the tools or resources to enable en masse learning.

Whilst further debate on this matter may be encouraged this research looks toward optimising the functional learning of our property students in a systemically changing academic environment. The body of current literature regarding property pedagogy including Boyd (2010), Hefferan and Ross (2010), Blake and Susilawati (2009), and Page (2008) address the changing teaching landscape. Change, and the skill bases required by future property professionals, has been the focus of a national survey undertaken by the Australian Property Institute (API 2010) that seeks to better inform and prepare accredited universities.

It is imperative to understand the evolution of the property education. However, this is only part of the process to provide a better and more effective learning experience for our students. Traditional teaching practices, incorporating high levels of declarative knowledge will need to evolve and be innovative to meet the future needs of the profession.

PROPERTY EDUCATION

With research supporting 40 years of property teaching at Australian universities there is a rich history and even a culture supporting the way we teach today. The culture and literature journey are evident in the Pacific Rim Real Estate Society journal and conference proceedings as well as the Emerald Groups published journals. Whilst there may be a literary consensus that property research is undervalued or underrepresented (Boydell 2007) the role for research supporting teaching appears uncontested (Newell, Susilawati and Yam 2010, Hefferan and Ross 2010, and Boyd 2010). Evidence of reflective research stimulating property program changes and then re-contributing to the research body of knowledge are practically demonstrated at the University of South Australia (Yam and Rossini 2011), Deakin University (Cornish, Reed, and Wilkinson 2009) and RMIT University (Baxter 2007).

Transformative reflection, as demonstrated by Baxter (2007), is used to 'set the stage' for effective teaching (Biggs and Tang 2009). However if stakeholders used current research to critically reflect on the quality of teaching property at Australian universities the results may be less complimentary. The stakeholders in property education may be grouped as students, alumni (graduates), academics (faculty) and employers (Baxter 2007 and Tu et al 2009). Alternatively the stakeholder group may be more extensively expanded to include accrediting bodies (Hefferan and Ross 2010) and the public (Boyd 2005 and PMI 2008).

Newell et al (2010) through analysing student feedback questionnaires from seven Australian universities concludes that recent initiatives, notably, improved course content and structure, course delivery and assessment, have resulted in an enhanced learning experience for property students. However, the students rating for quality of property teaching and overall satisfaction underperformed all the related disciplines (accounting, building, business, economics, law, and planning) in the ten years leading to 2009. Only planning had a lower average student satisfaction result over the extended 16 year period (commencing 1994) albeit the level improved at a rate faster than property to show higher results in all shorter time period studies.

In light of the relatively higher student satisfaction from non-property courses, and suggestion by Baxter (2007) that there needs to be greater engagement between the property academic and broader university teaching, this research focuses on mainstream tertiary pedagogy as it is applied to property programs.

HIGHER EDUCATION

The structure and financing of higher education in Australia, as well as most western and some eastern countries, has changed considerably in the past 30 years (Parker 2011, Bradley 2008, Biggs and Tang 2009). Higher education once comprised a small number of publicly funded institutions. In 2008 there were 37 public universities, two private universities and 150 or so other providers of higher education (Bradley 2008). The education services industry has grown to be one of nation's largest exports (DFAT 2011) with a bulk of funding from student fees. With the recent transformation of Australia's Higher Education System (DEEWR 2009, COAG 2009, and Bradley 2008) addressing the aspiration for growth in the proportion of persons with higher education qualifications the expansion trend is due to continue.

The structural shift has driven many changes within tertiary education with management assuming a more corporate role and education being commoditised or commercialised (Biggs and Tang 2009, and Parker 2011). Biggs and Tang (2009) discuss the divide with respect to the student being client or consumer of education and the conflicts with Vice-Chancellors assuming the role of CEO's. In discussing the shift or divide Parker (2011) warns of 'goal displacement' and the higher education trend toward 'knowledge retailing'. Whilst the Tertiary Education Quality and Standards Agency (TEQSA 2011) has been established to assure that students receive a high quality education it is evident that there will be further impacts on the quality of learning and teaching.

In establishing systems and practices to provide a quality learning environment for future property students this research principally focuses on:

1. The new student cohort;
2. How the students learn;
3. Desired skills and attributes of the graduates; and
4. How to incorporate professional knowledge

New Student Cohorts

Organically the growth of the higher education sector has driven a movement from teaching the elite to teaching en masse. With a greater proportion of students comes a greater diversity of students including (the) first in (the) family. This growth in diversification is sustained by national, state and institute agendas promoting social equity, such as the *Australian Governments Higher Education Participation and Partnerships Program*:

> *To address Australia's historically poor record in increasing participation by low SES students, the Australian Government announced in its 2009-2010 Budget an ambition for 20% of higher education enrolments at the undergraduate level to be from people of a low SES background by 2020. (DEEWR 2011)*

Students from either a low socio-economic status (SES) community or a family where no others have attended university feature prominently in the Review of Australian Higher Education (Bradley 2008) and the subsequent *Transforming Australia's Higher Education* (DEEWR 2009).

Low SES and first in family students without the financial resources or inherent informed family support face additional challenges in higher education. The challenges are shared by the educators and students alike as additional resources, such as time tutoring and supplementary research aids, may be necessary to compensate for those readily available to the rest of the cohort. Interestingly though it is not specifically issues associated with the lack the resources which academically separate low SES and first in family students from the broader cohort. When investigating high school graduation and dropout rates through a longitudinal study Ensminger and Slusarcick (1992) noted family back ground, in combination with early school performance as identifiers of academic trajectories. Through a multi cohort study by Rothman (2003) found that lower SES students have lower achievement scores and were less likely to complete their degrees albeit they maintained a positive perspective regarding their schools and were also likely to allocate more time to homework. Time, or lack thereof, may also be a contributor as Vicklers, Lamb and Hinkley (2003) found that only young people within the highest SES quartile were 'protected' from dropping out at university and that undertaking more than 20 hours part-time work influenced a student's likelihood of non completion.

Whilst there are many more questions and relationships to investigate with regard to increasing student diversity and bridging the equity 'gap' there are some simplified observations to draw. The requirement for on campus resources and off campus services are likely to increase at rates above the student admission rates if current teaching practices are continued and the current standard of higher education is retained.

How the Students Learn

According to Marton & Saljo (1976a) there are two clearly distinguishable levels of processing in learning, a *deep-level* and a *surface-level*. In surface level processing the student directs their attention towards learning the knowledge verbatim and is more or less forced to employ a rote-learning strategy. Deep level processing sees the student look beyond the text itself toward the material and what is signified. Through testing deep and surface learning Marton & Saljo (1976b) found that deep processing was more conducive to longer term knowledge retention.

Students by their very nature may be more inclined to adopt surface or deep learning strategies in higher education (Biggs 1999, Biggs and Tang 2009, and Marton and Saljo 1976b). According to Biggs (1999) students adopting deep approaches to learning virtually teach themselves. The deeper learners are autonomous and combatable with the current and emerging form of higher education (Biggs and Tang 2009). It is students who are inclined to adopt surface learning approaches who are likely to suffer from traditional teaching practices with higher student to teacher ratios. With the changes in higher education in Australia there is an overwhelming objective to find the right pedagogy tools to make students deeper learners (Biggs and Tang 2009).

Through experiment Marton & Saljo (1976b) discovered that students will adapt their use of surface or deep strategies depending on the perceived expectation of the teacher or assessor. Specifically Marton & Saljo note:

> *While many students are apparently capable of using 'deep' or 'surface' strategies, it may be that the current demands of the examination system at school level are interpreted by them as requiring mainly the recall of factual information to the detriment of a deeper level of understanding. (Marton & Saljo 1976b, p. 125)*

Biggs and Tang (2009) contrast passive lectures and active problem-based learning teaching methods against the cogitative activities for both a stereotypical academic 'Susan' and non academic 'Robert'. By moving away from passive (e.g. the standard lecture) student activities to active (e.g. problem-based learning) Biggs and Tang (2009) argue that the non academics employ a higher level cognitive activity making Robert learn like Susan. More specifically Biggs and Tang (2009) define good teaching as narrowing the gap between the Susans' and Roberts' of this world as:

> *Good teaching is getting most students to use the level of cognitive processes needed to achieve the intended outcomes that more academic students use spontaneously. (Biggs and Tang 2009)*

Critical Skills and Competencies

Through an online survey Tu et al (2009) sought to test the empirical findings of Weinstein and Worzala (2008) via a survey based on the authors' prior empirical findings to uncover the best ways to education future property professionals. Whilst the study focused on Northern American graduate real estate schools the findings with respect to desired critical skills would appear universal. Tu et al (2009) tested eleven set skills and competencies against the preferences of stakeholders including faculty, students, graduates and board members, with the findings represented in Table 1 below:

Table 1. Comparison of Skills and Competencies by Stakeholders

Student Skill	Faculty/Admin	Students	Alumni	Board Members
Comprehensive knowledge of business	**4.75**	**4.79**	**4.64**	4.53
Critical thinking	**4.84**	**4.74**	**4.77**	**4.78**
Understanding the current market trends	4.54	**4.73**	4.55	4.28
Writing skills	4.58	4.21	4.44	4.22
Oral communications skills	**4.72**	4.57	4.59	**4.66**
Quantitative/financial analysis skills	4.58	4.69	**4.77**	**4.59**
Negotiation skills	4.11	4.43	4.18	4.19
Leadership and management skills	4.17	4.43	4.19	4.38
Proficiency in tools used in the industry	3.96	4.31	4.14	4.13
Ability to work in teams	4.31	4.45	4.45	4.53
Ability to work individually	4.36	4.50	4.47	4.44
Average	4.45	4.53	4.47	4.43

Adapted from Tu et al 2009

Interestingly students considered comprehensive knowledge about the property industry as most significant whereas the other three groups placed more emphasis on critical thinking and the ability to analyse and communicate.

The comparably lower weighting of knowledge by Alumni and Board Members may be attributable to the type of knowledge implied by the responders. Or even the future employers consider the type of knowledge delivered by the faculty does not align with that required to be a successful industry professional.

Integrating Professional Knowledge

Oxford (2011) refers to knowledge in both theoretical and practical understandings of the subject. Biggs and Tang (2009) and Leinhardt et al (1995) make similar distinctions citing university (*declarative*) knowledge and professional (*functioning*) knowledge as:

> *Professional knowledge is functioning, specific and pragmatic. It deals with executing, applying and making priorities. University knowledge is declarative, abstract, and conceptual. It deals with labeling, differentiating, elaborating and justifying. (Leinhardt et al 1995 cited Biggs and Tang 2009)*

Leinhardt et al (1995) is particularly critical of university educators in field of applied professions, such as property, teaching declarative, non functioning knowledge stating:

> *As university educators and researchers, we have tended to ignore or devalue the uncodified knowledge of practice. Our testing procedures bear witness to our values as the probe analytic, principled knowledge. (Leinhardt et al. 1995).*

A similar theme may be drawn from the nation's preeminent property institute. According to the Australian Property Institute (API) their accredited property education programs are not sufficiently integrating professional knowledge. This is witnessed by the institute's National Education Board initiating an additional post graduation program, the Future Professional Program, 'to bridge the ever increasing gap between academic rigour and professional competency' (API 2011).

With government (DEEWR 2009) and the property industry (Baxter 2007 and Newell Susilawati and Yam 2010) expecting work ready property graduates it would be advantageous for our university programs to incorporate more professional or functioning teaching activities, assessment and grading. Functioning knowledge is readily assessable and deployed most often in the student's real-life experience. Assessment tasks include critical incidents, projects, reflective journals and other tasks that mirror professional life (Biggs and Tang 2009). Biggs and Tang (2009) suggest the following teaching activities (Table 2) and assessment and grading (Table 3) to effectively build the functional knowledge of students.

Table 2. Functional Knowledge Teaching Activities

Apply	
1. Case-based learning	Case study problem presented to encourage interactive discussion, to draw out what happened, who the participants were and their differing perspectives on an issue.
2. Group work	Buzz, Syndicate groups, Jigsaw groups, Problem-solving groups, Learning cells, Reciprocal questioning, and Spontaneous collaboration.
3. Workplace learning	Workplace learning is an active learning experience focusing on student participation in situated work activities (Billet 2004 cited in Biggs and Tang 2009).
Creativity	
4. Open ended	An intense interest and involvement in a specific area, accompanied with an open ended process, and resulting in an original product or artefact.
Lifelong Learning	
5. Generic study skills	Self directed learning through systematic note taking and reference collection, managing time, and strategically searching information.
6. Content Study skills	Capturing the main ideas in a passage of text or media, using concept maps to derive major structure, and composing essays according to pre-planned structure; using review and revise, not first drafts.
7. Reflective Learning	Reflective diaries, selecting critical incidents and suggesting how to deal with them.
Problem-based learning	
8. Problem-based Learning	Reflects on the way people learn in real life. In problem-based learning, the learner seeks the knowledge of disciplines, facts and procedures that are needed to solve the problem(s).

Adapted from Biggs and Tang 2009

Table 3. Functional Knowledge Assessing and Grading

1. Presentations	Student presentations - Presenting to peers, professionals and teachers with assessment contributions from all parties. Poster presentations - A creative and reflective way of presenting work. Ideally supported with self and peer assessment.
2. Critical Incidents	Keeping records, discussing the influence of critical incidents, and making use of the information.
3. Individual/Group Projects	Hands on piece of research. Group projects aim to teach cooperative skills. In group projects peer evaluation of contribution is considered necessary to account for unbalanced individual contributions.
4. Learning Contracts	A learning contract, which is negotiated between student and teacher, may take into account where a student is at the start of the course, what relevant attainments are possessed already and what work or other experience (with the context of the course) he or she is to produce.
5. Reflective Journal	A record of thoughts and incidents that help the student reflect on the content of the course.
6. Case Study	A case study exercise may be assessed as a project or item of a portfolio. It is essentially a holistic exercise.
7. Portfolio Assessment	A presentation of the students best 'learning treasures'.
8. Capstone final year project	A final year project specifically designed to meet the programs intended learning outcomes that may have not been assessed in the individual subjects.

Adapted from Biggs and Tang 2009

METHODOLOGY

This research is focused on a review of course and program outlines for Australian Property Institute (API) accredited undergraduate programs, or endorsed programs across Australia. In this paper courses are referred to as the individual subjects that combine to form a degree program. From the course outlines and program information there are three main fields reviewed:

1. The aim, objectives, attributes and intended graduate attributes of the courses and programs are compared with the skills and competencies noted by Tu et al (2009);
2. The course delivery and teaching delivery methods are noted to demonstrate the diversity or otherwise of functional knowledge teaching activities as described by Biggs and Tang (2009); and
3. The assessment items and weighting towards tasks are reviewed with consideration given to the functional knowledge assessment and grading activities described by Biggs and Tang (2009).

In total there are 14 API endorsed programs provided within twelve universities across Queensland, New South Wales, South Australia and Western Australia. The majority of the universities have course and program information readily available through the respective university website or online student handbook.

Detailed course and program information was not made readily available for four of the programs, whilst a further five programs had only partial course outlines available. Full course outlines were sought and provided for two of programs extending the sample to 86% of the accredited programs.

Due to a diversity of subject material the scope of the research has been refined to courses, within the programs, which principally focus on the API Knowledge Fields (Susilawati and Armitage 2011). The API Knowledge fields include subjects related to: Building Studies; Land Use/Planning; Commercial Law; Financial Accounting; Property Investment / Finance; Property Economics; Property Law; Property Management; Property Valuation; Advanced and Specialist Valuation; Property Market Analysis; Statutory Valuation; and Property Development.

SKILLS AND COMPETENCIES

The learning outcomes or desired skills and competencies from university programs are prescribed in a range of manners. Some programs note program specific attributes however the majority of the attributes are assigned to the individual courses.

In each course reviewed, knowledge of the subject area was considered paramount. Table 4 below identifies the student skills and competencies from the reviewed programs. The student skills and competencies have principally been derived from Tu et al (2009) with four additions which featured prominently in the reviewed course outlines. The table demonstrates communication skills, being oral or written, are considered in each program. Further critical thinking and creative and innovative problem solving were dominant skills and competences sought from the programs.

Less noted skills and competencies include: understanding current market trends; leadership and management skills; negotiation skills; ability to work individually; and digital technology literacy. For the later, more generic skills, it is likely that these may be implied (i.e. ability to work individually) or even addressed in core university courses (i.e. compulsory entry level business courses) outside of the API knowledge field subjects.

Table 4. Skills and Competencies by University Program

Student Skill or Competency \ Program	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Comprehensive knowledge of business	x	x	x	x	x	x	X	x	x
Critical thinking	x	x	x	x		x	X	x	x
Understanding the current market trends									
Writing skills	x	x	x	x	x	x	X	x	x
Oral communications skills	x	x	x	x	x	x	X	x	x
Quantitative/financial analysis skills	x	x		x	x	x	X		x
Negotiation skills	x			x			X		
Leadership and management skills			x					x	
Proficiency in tools used in the industry	x	x	x	x	x		X		
Ability to work in teams	x	x	x	x	x			x	x
Ability to work individually		x	x					x	
Creative and innovative problem solving	*x*	*x*	*x*		*x*	*x*	*x*	*x*	*x*
Social and ethical behaviour	*x*		*x*	*x*	*x*	*x*	*x*	*x*	*x*
Digital technology literacy		*x*	*x*						
Environmental awareness	*x*	*x*		*x*	*x*		*x*	*x*	

The letter attributed to each program has intentionally been altered table by table to de-identify the programs

The omission of understanding current market trends is notable. Whilst many programs and course focus on research methodologies, and incorporate subject material such as market analysis, the intent of the courses appears to promote the ability of students to source and read market trends rather than specifically understand the current status of the markets.

Workshops and conferences addressing current market trends are generally left to industry bodies (Property Council of Australia, and Urban Development Institute) and larger agencies (CB Richard Ellis, Jones Lang LaSalle, Savills, and Colliers International). Whilst the API and some valuation practices contribute to state of the market conferences it is increasingly rare to see universities or academics actively contributing in providing current market research.

TEACHING DELIVERY METHOD

Faculty staff and program coordinators are not solely responsible for the teaching delivery method as the universities may coordinate lecture and tutorial sessions whilst restricting off campus activities due to work place health and safety, and insurance issues. For example the University of the Sunshine Coast has a central facilities management and security group who, in conjunction with a timetabling committee, allocate rooms and timeframes for each faculty and school.

Of the eleven programs which provide face-to-face education the lecture and tutorial format was dominant (table 5). More specifically every course except for one, or 99%, had prescribed lectures. Only 8% of the courses incorporated site visits / field trips whilst one program incorporated a moot court as learning and teaching activity.

Table 5. Teaching Delivery Method by University Program

Teaching Delivery \ Program	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**
No.of courses reviewed	*12*	*8*	*12*	*11*	*12*	*12*	*12*	*13*	*12*	*9*	*9*	*9*
Lectures	12		12	11	12	12	12	13	12	9	9	8
Tutorials / Workshops / Laboratory	7		12	8	4	12	12	13	12	7	7	8
Field Trips / Site Visit	2		1	3	1		2	1				
Online Learning		8										
Supplementary Online Learning					4							1
Other				1								

The letter attributed to each program has intentionally been altered table by table to de-identify the programs

Interesting the concept of a lecture and tutorial are rather unique to university education. Whilst property professional do attend professional development events whereby information is delivered in a manner similar to a university lecture, the commitment need only account for 20 hours a year (API 2011b). The other some 1,900 hours are dominated by time at the desk in front of a computer and phone, driving, on property inspections, negotiating and debating with clients and stakeholders, small company meetings, and meeting clients and peers informally over coffee or other beverage.

Biggs and Tang (2009) are particularly critical of the lecture, and tutorial, method as a generic university duty noting that whilst they have their uses, they are limited in what they can achieve and can become passive and conducive to surface learning. Further the concept of lecturing or delivering information is contrary to the concept of *constructive alignment*, opposes the focus on learning, rather than teaching and places little emphasis on what the student does (Biggs and Tang 2009).

Boyd (2005) proposed integrated problem-based workshops and other industry linked training opportunities as teaching delivery mode to provide a more effective learning environment for property students. It is possible that such workshops may already be incorporated into courses with professional guest speakers, albeit, not enough information is contained with the available course outlines to investigate further.

The course outlines alone may not be adequate to judge teaching delivery methods as more innovative lecturers may regard the lecture theatres and tutorial rooms as a place whereby a range of learning activities may take place. In such instances it may be advantageous for the respective course coordinators to explicitly depict the activities in the course outlines and inform faculty so that appropriate notations may be made on program and marketing information.

ASSESSMENT TASKS

The concept of constructive alignment, the theme of the seminal book *Teaching for Quality Learning*, refers to the systematic alignment of the teaching/learning activities, and the assessment items to the prescribed intended learning outcomes (Biggs and Tang 2009). The results of the process and respective links between learning outcomes and assessment tasks are evident in most of the reviewed courses, especially those from the University of Queensland program, Bachelor of Business Management (The University of Queensland 2011).

Whilst the mapping of objectives and assessment items is evident there appears to be an overreliance on declarative assessment tasks. Table 6 depicts the assessment item weighting by property program with the average for all the sampled courses illustrated. The clear dominant assessment item is exams, accounting for approximately 50% of the total assessment points. For many of the reviewed courses no assessment items, other than the exam itself, were hurdle tasks and therefore it may be possible for a student to obtain a pass through mastering exam answers only.

Table 6. Assessment Task Weighting by University Program

Assessment Weighting \ Program	A	B	C	D	E	F	G	H	I	**Average**
Exam	59%	48%	48%	52%	52%	45%	53%	42%	47%	**49.5%**
Report	3%	25%	15%			33%	19%	33%	19%	**16.3%**
Essay/Literature Review	4%	13%	16%	3%	3%	10%	7%			**6.2%**
Quiz/Class Test		3%	3%	9%	9%	6%	3%	3%		**3.9%**
Oral Presentation	5%	1%				3%	7%	6%		**2.4%**
Tutorials	8%						2%	8%	2%	**2.2%**
Journal/Field Diary	3%	4%	4%					7%	2%	**2.2%**
Undefined Assignment	18%	5%	9%	36%	36%		4%	2%	29%	**15.4%**
Financial Analysis		1%	6%							**0.8%**
Portfolio							3%			**0.3%**
Case Study							3%			**0.3%**
Measurement						2%				**0.2%**
Poster						2%				**0.2%**

The letter attributed to each program has intentionally been altered table by table to de-identify the programs

The dominance of exams, of which the majority is closed-book in nature and positioned at the end of semester, is of concern from a pedagogical perspective for two primary reasons:

1. The lost opportunity for formative feedback and constructive reflection; and
2. The lack of authenticity and alignment with industry practice.

Besides constructive alignment another dominant term in higher education learning is assessment for/as learning. Whilst Brown (2004) discusses the concept in greater detail it is evident that assessment items have a role in education far beyond just measuring performance. Students utilise formative feedback to learn and adapt their respective approaches. Some assessment tasks, such as multiple choice tests and end of year exams, are not followed with in-depth student feedback but rather only a prescribed a grade. Summative feedback provides little scope for students to learn and they are often reluctant to pursue formative feedback when the course is finished.

The exam itself does not mirror industry practice but rather aligns to declarative, or university knowledge. Property industry practitioners are seldom without ready access to their files or the web (desk top, laptop, or even phone/mobile devices) and would be discouraged by the registration or accrediting institutions to provide advice within a compressed or pressured timeframe whereby they do not have adequate access to resources or expert advice, such as a closed book exam.

Through reviewing the assessment items in Table 6 against the functional assessment items derived from Biggs and Tang (2009) eight out of the twelve categories may be regarded as functional assessment tasks being:

1. Report;
2. Oral presentation;
3. Journal/field diary;
4. Financial analysis
5. Portfolio;
6. Case study;
7. Measurement; and
8. Poster

The functional assessment tasks only account for one quarter or 27% (excluding undefined assignments) of the total assessment weighting for the API accredited property programs reviewed. With the other three quarters being declarative or university knowledge focused it may be argued that there is a gap between academic assessment items and professional practice.

LIMITATIONS

This research has focused on API accredited property programs in Australian universities. Specifically the methodology relates to a review of program and course outlines pertaining to the API knowledge areas. A more detailed program review, including qualitative lecture observations, would provide a more robust base of information for comparison.

The merits or otherwise of online, blended or face-to-face delivery have not been addressed and the paper has a bias toward face-to-face, given only one program was available in online modules only. There is research supporting the merits of online delivery (Yam and Rossini 2011, and Cornish, Reed and Wilkinson 2009) albeit the benefits may be closer aligned to declarative knowledge (Sitzmann et al. 2006 cited Yam and Rossini 2011).

Technology and new innovative learning strategies in mainstream university pedagogy continue to emerge and it is foreseeable that there are, or will be, more effective learning tools than those noted in this paper. For example the Horizon Report identifies emerging technologies such as: electronic books; mobile devices; augmented reality; game based learning; gesture based computing; and learning analytics as innovations in learning and teaching likely to form part of higher education over the next five years (Horizon 2011).

CONCLUSIONS

Our perceptions of the quality of property education are influenced by who the stakeholders are considered to be. Whilst the student cohort are generally regarded as the primary stakeholder group or clients it is important to note that alumni, academic staff, employers, and even accrediting bodies and community or general public have interests that may be positively or negatively affected by the quality of property education provided.

With the shift in the financing of higher education institutions, directive to increase student numbers and create equity through greater participation from lower SES students, it is clear that there is an emergent structural change in Australian universities. To accommodate the new and, potentially more diverse cohort and maintain or improve teaching quality changes in teaching practice and respective programs, substantive reviews will be necessary. Effective reviews will incorporate mainstream pedagogy practices, such as constructive alignment, and innovative learning activities and assessment pieces. Property education does not exist in a vacuum (Baxter 2007) and a closer alignment of the discipline pedagogy with mainstream pedagogy, through practice and research, may be a productive way to improve the quality of teaching in higher education.

Regardless of the subject material, the principle of deeper learning should be applied to encourage students to use higher cognitive functions to discourage rote learning. A move away from the dominant, yet potentially passive, lecture to problem based learning workshops may be the first stage. Such a move, supported by functional knowledge focused curriculum and assessment, may counter the argument that there is a gap between academic rigour and professional competency and better prepare property students for practice.

The requirement for closed book exams as assessment tasks should be considered by course and program coordinators alike. Open book and open web (OBOW) exams may have more pedagogical relevance, however formative feedback should always be incorporated if the assessment is to contribute to learning. Whilst Brown (2004) is not generally supportive of peer assessment, it may be worthwhile debating the merits of student self and peer evaluations in set assessment items as it is a process evident in professional property practices and quality assurance.

Another emerging consideration stems from the lack of specific focus on the teaching of current market trends in the reviewed courses. If academics were to allocate further time to professional or market research, as opposed to academic research then there may be more opportunities for community and professional engagement. If professionally orientated research active academics were to share their knowledge with the students then they may be better equipped for practice.

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