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Property Education: How Should It Be Taught?

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Abstract

Property education has been the topic of some debate over the years. From general discussions on course curriculum and assessment through to specific issues such as problem based learning and field trips.

The motivation behind this research was the findings of a recent Graduate Careers Council of Australia (GCCA) survey, which showed the quality of property education, as perceived by the students, was below that of other related disciplines.

The aim of the research is to gather views of the stakeholders in property education so as to improve the standard of property education.

The main stakeholders i.e. students, academic staff and industry were surveyed on the following broad topics:

- ✓ curriculum design
- ✓ delivery
- ✓ assessment

Issues that were addressed under the heading of curriculum design included; degree of input from each stakeholder, problem based curriculum, student centred v industry centred curriculum, mentoring and work experience.

The delivery component of the questionnaire asked opinions on field trips, online delivery, case studies and size of lectures and tutorials.

Finally, the assessment section explored the importance of exams, individual and group assignments and research papers.

The findings have implications for both the universities and the property industry.

KEY WORDS: property education, curriculum design, teaching methodology,

Preamble

Property Education has been the topic of some debate over recent years. From the general course curriculum: Blundell (1999), Newell and Eves (2000) and Robinson (1998a) to specific issues such as problem based learning (Anderson et al, 2000) and field trips Hoyt (2002).

The research that was the motivation to look further into property education was that of Graeme Newell and Peter Acheampong, titled "The Quality of Property Education in Australia" (2002). Based on the Graduate Careers Council of Australia (GCCA) survey, which seeks the views of over 150,000 graduates annually, the quality of property education, as perceived by the students, is below that of other related disciplines. The property average has increased slightly over time but there is obviously room for improvement.

The aim of this research is to gather the views of the stakeholders in property education so as to improve the standard of property education throughout Australia.

Research Question

> ***What are the views of students, academic staff and industry on property education in terms of curriculum design, delivery and assessment?***

The research attempts to address this question by gathering the views of the main stakeholders in property education i.e. students, academic staff and industry through a mail survey that asks a series of questions based on issues in property education such as curriculum design, delivery and assessment.

The research proposes to identify how property education should be taught in particular in relation to curriculum design, delivery and assessment. For the purpose of this research, property education involves undergraduate property valuation courses.

It is hoped that input gathered from the stakeholders i.e. academic staff, students and industry, in relation to their views on property education in the present and the future, may identify whether change is necessary in order to make property education more relevant to the needs of industry, students and universities.

Lit Review

The literature provided an insight into the trends in business education and the implications for real estate. It also shed some light on innovative practices

such as an Integrated Real Estate Curriculum, Problem-Based Learning and phenomenalism.

The literature mostly reflects the academic view of property education. There is very little evidence of research that includes the views of students and industry.

As such this research has canvassed the views of students, industry professionals as well as academic staff to ensure that property education reflects at least to some degree the needs of all stakeholders.

> **“Unless the students’ and the lecturers’ viewpoints are aligned, it seems that the learning outcome will not be satisfactory” (Hargreaves and Wallis 1995).**

Methodology

As mentioned in the introduction, descriptive research has been conducted and a mail survey used as the research instrument.

A 23 question mail survey was developed, which was divided into four sections. The first section consisted of two questions related to demographics i.e. state of origin and whether they were a student, lecturer or API Committee member. The second section included nine questions based on curriculum design. The third section asked a total of eight questions on the topic of delivery and the final section consisted of six questions related to assessment. A copy of the survey is in Appendix A.

All, except for six, questions asked respondents to circle a number between one and five, one signifying “strongly agree” and five signifying “strongly disagree”. A five-point Likert scale was used. In this research, the Likert scales have been used as an interval scale.

Out of the six questions that did not use a Likert scale to indicate response, four asked respondents to either tick the appropriate box or write a percentage to show how important a particular feature was.

Variables

The variables are grouped into three categories: Curriculum Design, Delivery and Assessment. Each category has numerous variables, as listed below.

Curriculum Design: Level of input from each stakeholder, Integrated Curriculum, Problem-Based Curriculum, Student-Centred, Industry Centred, Mentoring and Work Experience.

Delivery: Face-to-face, Online, Field Trips, Guest Speakers, Case Studies and Size of Classes.

Assessment: Exams, Individual written assignments, Individual oral assignments, Group Work, Self-Assessment, Peer-Assessment, Case Studies and Research Paper.

Sample Frame

The following sample frame was used as they were considered to be stakeholders and in some cases, experts in the field.

The sample frame is:

- ✓ All API divisional council members of the five states which have property universities i.e. Western Australia, South Australia, Victoria, New South Wales and Queensland. A total sample size of 65
- ✓ All property lecturers at the seven property universities i.e. Curtin University, Queensland University of Technology, Royal Melbourne Institute of Technology, University of Queensland, University of South Australia, University of Technology, Sydney and University of Western Sydney. A total sample size of 25.
- ✓ All final year undergraduate property valuation students at the above universities. A total sample size of approximately 280.

Once the pilot study was completed and modifications made, surveys were sent to the seven property universities, five divisional API divisional committees and the National Executive Committee of the API. Included with the questionnaires were brief instructions on how to distribute and collect the questionnaires.

The database used was Microsoft Excel. Most responses were straight forward to enter into the database but a special coding was used for four of the questions. These questions asked respondents to tick one out of up to seven boxes. When entering their responses into the database, the first box was coded as a "1", the second box as a "2" and so on.

For the Likert based questions, the analysis has been conducted with the use of descriptive statistics. The ways that the data has been described is through frequency tables. Based on the Likert scale, the mean has been used as a measure of central tendency and standard deviation as a measure of variation.

Response rates

Sample size and response rates are tabled below.

Table 1: Sample size and response rates for API Divisional Councils

API Divisional Councils	Sample Size	Surveys Returned	Response Rate
TOTAL	**65**	**14**	**22%**

It was difficult to ascertain with a great degree of accuracy the overall response rate for lecturers and students as I was unable to determine exact numbers at every participating university. Most student numbers are approximate, rounded to the nearest ten.

Table 2: Sample size and response rates for University lecturers

University lecturers	Sample Size	Surveys returned	Response Rate
TOTAL	**25**	**13**	**52%**

Table 3: Sample size and response rates for University students

University students	Sample Size	Surveys returned	Response Rate
TOTAL	**277**	**150**	**54%**

The response rates from the universities for the mail questionnaire were very pleasing. Just over half of all questionnaires were returned from the universities but less than a quarter of the surveys were returned from the API divisional councils. One reason for this disparity in response rates could be that one of the primary roles of universities is to educate so they are more motivated to participate in a survey about education whereas the role of the API is to serve its members. Education may not be a primary concern of the API, even though it is compulsory for members to participate in continuing education through a Continuing Professional Development program.

Four issues were identified as a means of ingraining the reliability of the survey. Firstly, each variable has been clearly conceptualised so that only one variable is being measured in any one question. Secondly, in most questions a 5-point Likert scale has been used, rather than using just a "yes-no" or "agree-disagree" scale. This means measurements are more precise. A 7-point Likert scale could have been used to make the measurements even more precise but this was deemed unnecessary in the initial stages of formulating the questionnaire. Thirdly, multiple indicators have been used to test for consistency i.e. two questions basically ask the same question. For example, Question 1 ask respondents to indicate which stakeholders should have input into the property valuation curriculum and Question 2 asks them to indicate the level of input from each stakeholder by filling in the appropriate percentages.

Results

This next section presents the results for each of the 23 questions asked. Tables and descriptive statistics such as mean, mode and standard deviation are used to illustrate the results. Results are presented based on stakeholder groups i.e. API, lecturers and students. A derivation and explanation of results is given and implications for practitioners are offered in the final section.

The results are presented in line with the survey questions.

Curriculum Design

Source of Input

The property valuation curriculum must have input from
(tick one only)

University staff only
Industry only
Students only
University staff and students
Industry and students
University staff and industry

Table 4: Frequency table for responses from the API to Question 1

Question 1	**API**		
	Response	Frequency	%
Uni only	1	0	0.00%
Industry only	2	0	0.00%
Students only	3	0	0.00%
Uni Staff & Students	4	0	0.00%
Industry & Students	5	0	0.00%
Uni Staff & Industry	6	5	35.71%
All	7	9	64.29%
Total		**14**	

Table 5: Frequency table for responses from lecturers to Question 1

Question 1	**Lecturer**		
	Response	Frequency	%
Uni only	1	2	14.29%
Industry only	2	0	0.00%
Students only	3	0	0.00%
Uni Staff & Students	4	0	0.00%
Industry & Students	5	0	0.00%
Uni Staff & Industry	6	6	50.00%
All	7	5	35.71%
Total		**13**	

Table 6: Frequency table for responses from students to Question 1

Question 1	**Student**		
	Response	Frequency	%
Uni only	1	2	1.27%
Industry only	2	2	1.27%
Students only	3	3	1.91%
Uni Staff & Students	4	10	6.37%
Industry & Students	5	2	1.27%
Uni Staff & Industry	6	36	23.57%
All	7	99	64.33%
Total		**150**	

The majority (64%) of API respondents agreed that all stakeholders i.e. university staff, students and industry must have a say on how the curriculum is designed. The remaining respondents (36%) indicated that students should not be involved in the design of the curriculum and it should be left to the university staff and industry professionals.

The results for university lecturers were quite different. A small minority (14%) indicated that only university staff have input into the curriculum. The majority (50%) agreed that university staff and industry should design the curriculum, without input of students and the remainder (36%), indicated that all stakeholders must be involved.

The responses from the students were more closely aligned to that of the API than university staff. The same percentage of student respondents as API respondents (64%) agreed that all stakeholders i.e. university staff, students and industry must have a say on how the curriculum is designed. Approximately one quarter (24%) of students indicated that only university staff and industry should design the curriculum and a small minority (6%) indicated that there should not be any input from industry and it must be left to universities, their staff and students, to design the curriculum.

In conclusion, most respondents agree that the property valuation curriculum must be designed in collaboration with other stakeholders. The level of input from each stakeholder group into the property valuation curriculum is explored in the next question.

Level of Input

Level of input from each stakeholder must be **(score should total 100%)**

University_____*%*

Industry _____*%*

Students _____*%*

TOTAL 100%

Table 7: Mean scores based on stakeholder group for Question 2

Stakeholder	University	Industry	Students	Total
API	46.07%	40.71%	12.50%	100%
Lecturers	62.69%	30.38%	6.92%	100%
Students	39.77%	41.21%	18.37%	100%

Each group agrees that all stakeholders must have a level of input into the property valuation curriculum and students should have the least input. Lecturers indicate that the level of input from the students should be approximately 7%. The API indicate that the students should have a 12% input and the students themselves consider they should have an 18% say on how the property valuation curriculum is designed, the highest proportion in comparison to the other stakeholder groups.

The API and university staff agrees that the universities should have the highest level of input; API (46%) and lecturers (63%) and students indicated that universities and industry should have approximately the same level of input; API (40%) and lecturers (41%).

Once again the API result is closely aligned to that of the students, so far as level of input from the API is concerned. The API and the students both indicate that the level of input into the property valuation curriculum by the API must be around 41%.

Integration of Curriculum

The curriculum must be integrated, where concepts from a variety of areas eg valuation, law, economics are taught in conjunction with each other and not in isolation.

Strongly Agree Strongly Disagree
1 2 3 4 5

Table 8: Question 3 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.29	2	0.91
Lecturers	2.23	2	1.09
Students	2.02	2	0.91

The most common answer from each stakeholder group indicated that they agreed with the statement. The students felt more strongly in the positive sense about this issue than the other groups, showing a mean score of 2.02. The API and lecturers had a similar mean score, 2.29 and 2.23 respectively. The degree of variation in responses from the API and students was exactly the same (0.91). The lecturers' responses displayed the greatest variation (1.09).

Problem Based Curriculum

The curriculum must be problem based. In other words, use real life property issues and case studies as the basis for learning.

Strongly Agree Strongly Disagree
1 2 3 4 5

Table 9: Question 4 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.62	2	0.51
Lecturers	1.77	1	0.93
Students	2.02	2	0.91

The API and lecturers had a similar mean score, 1.62 and 1.77 respectively. The students did not feel as strongly as the other two stakeholder groups but overall, they still agreed that the curriculum must be problem based. The variation in responses from lecturers and students was very similar, 0.93 and 0.91 respectively. The API had the smallest deviation from the mean as all responses were either "strongly agree" (1) or "agree" (2). In comparison, a couple of the lecturer responses were either "neutral" (3) or "disagree" (4).

Focus of Curriculum - Student

The curriculum must be student centred and focus on the needs of the students and their educational outcomes.

Strongly Agree Strongly Disagree
1 2 3 4 5

Table 10: Question 5 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.79	3	0.80

Lecturers	2.54	2	1.27
Students	2.26	2	0.99

Not surprisingly the students felt strongly (2.26), in comparison to the other two stakeholder groups (lecturers 2.54 and API 2.79), about the curriculum being student centred and focused on their needs. All API responses except for three either agreed with the statement or were neutral, which resulted in a small standard deviation. On the other hand, lecturers' responses ranged from "strongly agree" through to "strongly disagree", thus a relatively higher standard deviation.

Focus of Curriculum - Industry

The curriculum must be industry centred and focus on the needs of the industry.

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 11: Question 6 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.14	2	0.77
Lecturers	2.46	2	0.78
Students	2.07	2	0.98

Interestingly, in comparison to the other stakeholder groups, students felt the strongest (2.07) about an industry centred curriculum, just as they did a student centred curriculum (API 2.14 and lecturers 2.46). Even though means for students and industry were very close, one may have thought that the API, the valuation industry and professional body, would have felt the strongest on this issue. The most common answer from each stakeholder group indicated that they agreed with the statement. Variation of responses from the API and lecturers was almost exactly the same, 0.77 and 0.78 respectively.

Mentoring

All property valuation courses must adopt mentoring schemes (e.g. guidance from an industry expert).

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 12: Question 7 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.21	3	0.97
Lecturers	2.00	2	0.91
Students	1.99	1	1.03

Surprisingly, the API who would be an integral component of a mentoring scheme weren't as enthusiastic about all university property valuation courses adopting a mentoring scheme. The most common response was a neutral one (3). University lecturers and students had very similar opinions, 2.00 and 1.99 respectively, with students feeling the strongest about mentoring schemes, as

indicated by a slightly lower mean and their most common response to the statement was “strongly agree”.

Work Experience within Program

Property valuation courses must include some work experience.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 13: Question 8 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.29	1	0.47
Lecturers	1.69	2	0.63
Students	1.89	1	1.10

It was on this issue and the next one, which are related, that the API felt the strongest, in relation to curriculum design. The standard deviations were exactly the same as were the degree of agreement, albeit shown by opposing numbers. The most common response to this statement was “strongly agree” and the most common response to the next statement, which reads “*Property valuation courses must only be conducted within the University context and all work experience should be undertaken after the completion of the degree.”* was “strongly disagree”.

The mean scores for each statement were exactly the same distance from either extreme. Lecturers and students also felt the strongest about this statement (1.69 and 1.89 respectively), when compared to any other questions on curriculum design. It could be argued that students would benefit the most from work experience yet their responses when compared to the other stakeholders weren’t as decisive, as evidenced by a higher standard deviation and mean.

Work Experience outside Program

Property valuation courses must only be conducted within the University context and all work experience should be undertaken after the completion of the degree.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 14: Question 9 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	4.71	5	0.47
Lecturers	4.08	4	0.86
Students	3.77	5	1.23

As mentioned above, the API felt strongest about this statement and the previous one, so far as design of the curriculum is concerned. Even though the most common answer from students was “strongly disagree”, there was a wide variation of answers as indicated by the standard deviation (1.23), in

comparison to the other stakeholders. As shown by the mean and mode, lecturers disagreed with this statement.

Results for the above two questions were consistent with each other.

Delivery

Face-to-Face

Classes must be conducted only in a face-to-face, classroom-based manner.

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 15: Question 10 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	3.29	3	0.99
Lecturers	3.38	4	1.33
Students	2.83	3	1.11

This statement, along with the next one, resulted in one of the most neutral responses of all statements related to delivery, as determined by the mean score. It was the most neutral score for the students, which is also evidenced by their most common response (3). Out of the three stakeholder groups, it was the lecturers that were most opposed to conducting classes only in a face-to-face manner. It's surprising to see that students didn't mind if all classes were conducted face-to-face. With the great use of IT and computers in our society and universities in particular, one would have thought that students would be keen to do at least some on-line study. Some possible reasons for this are explored in the next section.

On line - Partial

Some online component must be incorporated into the curriculum.

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 16: Question 11 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.93	3	0.92
Lecturers	2.92	2	1.19
Students	2.55	2	1.03

This statement resulted in the most neutral response from the API and the lecturers, as indicated by the mean scores, 2.93 and 2.92 respectively. Interestingly, none of the API responses indicated "strongly disagree" but there were a couple of "strongly disagree" responses from lecturers. Students were most in agreeance with this statement. From the previous two statements, students are indicating that they don't mind only face-to-face classes but they also want some on-line component; somewhat contradictory.

On line - Total

Property valuation courses must be able to be learnt totally online.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 17: Question 12 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	4.43	5	0.85
Lecturers	4.00	5	1.29
Students	3.89	5	1.16

Online learning provoked the most negative response of all statements related to delivery. This is evidenced by the most common responses for all stakeholder groups, which indicated they strongly disagreed (5) with this statement. All stakeholder mean scores were also the most negative scores of all statements related to delivery.

Field Trips

Where appropriate, field trips must be a compulsory part of the program.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 18: Question 13 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.43	1	0.51
Lecturers	1.92	1	1.12
Students	2.08	1	1.08

Field trips provoked one the most positive responses of all statements related to delivery. This is evidenced by the most common responses for all stakeholder groups, which indicated they strongly agreed (1) with this statement. The API in particular was very decisive in their responses as evidenced by a mean score closest to 1 and a relatively small standard deviation. All API respondents either strongly agreed or agreed with this statement whereas a couple of lecturers disagreed with this statement, thus a larger standard deviation.

Guest Speakers

Guest speakers from industry must be invited to address students .

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 19: Question 14 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation

API	1.29	1	0.61
Lecturers	1.85	2	0.80
Students	1.71	1	0.95

All stakeholders were very decisive in their responses to this statement, as evidenced by the consistently low standard deviations. All API respondents either strongly agreed or agreed with this statement whereas a couple of lecturers were neutral on the issue of guest speakers.

Case Studies

Real life case studies must be a part of the program.

Strongly Agree Strongly Disagree
1 2 3 4 5

Table 20: Question 15 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.43	1	0.51
Lecturers	1.38	1	0.51
Students	1.56	1	0.87

If there was one statement where all stakeholders felt the same, it is this one. The issue of real life case studies in the program resulted in mean scores that were almost identical across the three stakeholder groups. The most common response from each stakeholder group was identical (1) and the standard deviations for each stakeholder group were relatively small. Almost as one voice, the stakeholders strongly agree that real life case studies must be a part of the property valuation program/course.

Size of Lectures

Given the purpose of lectures is to give information and demonstrate concepts, optimum numbers of students in lectures is **(tick one only)**

- Less than 20
- 20-39
- 40-59
- 60-79
- 80+

Table 21: Question 16 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.93	2	0.83
Lecturers	3.54	5	1.27
Students	2.38	2	0.98

It is interesting to note the large variation in the mode when comparing the API and students (2) to the lecturer stakeholder group (5). Most API and student respondents would prefer lectures to have between 20-39 students but lecturers would prefer to have lectures of 80+ students. Also of interest is

the fact not one API respondent preferred lecture class sizes of 80+ and not one lecturer preferred class sizes of less than 20 in a lecture.

Size of Tutorials

Given the purpose of tutorials is to ask questions and promote discussion, optimum numbers of students in tutorials is **(tick one only)**

- Less than 10
- 10-19
- 20-29
- 30-39
- 40+

Table 22: Question 17 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.79	2	0.58
Lecturers	2.15	2	0.55
Students	1.85	2	0.59

Out of the 177 respondents, not one indicated they wanted tutorial classes to have more than 30 students. This can be evidenced by the very small and similar standard deviations. Unlike the previous statement which related to numbers in lectures, all stakeholders agreed that tutorial classes should be relatively small i.e. 10-19 students. This is another statement where all stakeholders responded in unison, as indicated by the same mode and very similar standard deviations and mean scores.

Assessment

The last six questions all relate to assessment.

Components of Assessment

Assessments must be based on **(tick one only)**

- Exams only
- Individual assignments only
- Group assignments only
- Exams and individual assignments
- Exams and group assignments
- Individual and group assignments
- Exams/individual assignments/group assignments

Table 23: Frequency table for responses from the API to Question 18

Question 18	API		
	Response	Frequency	%
Exams only	1	0	0.00%
Individual only	2	0	0.00%

Group only	3	0	0.00%
Exams and Individual	4	5	35.71%
Exams and Group	5	0	0.00%
Individual and Group	6	0	0.00%
All	7	9	64.29%
Total		**14**	

Table 24: Frequency table for responses from lecturers to Question 18

Question 18	**Lecturer**		
	Response	Frequency	%
Exams only	1	0	0.00%
Individual only	2	0	0.00%
Group only	3	0	0.00%
Exams and Individual	4	3	23.08%
Exams and Group	5	1	7.69%
Individual and Group	6	0	0.00%
All	7	9	69.23%
Total		**13**	

Table 25: Frequency table for responses from students to Question 18

Question 18	**Student**		
	Response	Frequency	%
Exams only	1	4	2.70%
Individual only	2	7	4.73%
Group only	3	4	2.70%
Exams and Individual	4	39	26.35%
Exams and Group	5	7	4.73%
Individual and Group	6	23	15.54%
All	7	64	43.24%
Total		**148**	

The stakeholders indicated that assessment must be based on a combination of exams, individual and a group assignment, as this was the most popular answer for all groups. All API respondents preferred a combination of all three methods of assignment or second preference was assessment through exams and individual assignments only; no group assignments. Lecturer responses were closely aligned to that of the API but one response indicated they preferred exams and group assignments; no individual assignments. The least popular selections by students were assessment by only exams and only group assignments. Of note is the aversion to group work by students; any option (other than “all”) that included group assignments as part of the assessment attracted the least responses (34). Options that included exams (other than all) were selected by 50 students and options that included individual assignments (other than all) attracted the most responses (69). This will be further discussed in the “Implications for Practitioners” section.

Consistent with the above results, the most common response from each student cohort was that they preferred a combination of all assessment methods.

Weighting of Assessment

Weighting of assessment must be **(score should total 100%)**

Exams	____%
Individual written assignments	____%
Individual oral presentations	____%
Group assignments	____%
TOTAL	**100%**

Table 26: Mean scores based on stakeholder group for Question 19

Stakeholder	Exams	Individual Written Assignments	Individual Oral Assignments	Group Assignments
API	49%	28%	14%	10%
Lecturers	55%	30%	5%	15%
Students	36%	33%	12%	19%

The API preferred the most weighting to be given to exams (49%), then individual written assignments (28%), followed by individual oral assignments (14%) and the least weighting was given to group assignments (10%). The lecturer stakeholder group also gave the most weighting to exams and individual written assignments (55% and 30% respectively) but in contrast to the API, gave the least weighting to individual oral assignments (5%). The students gave a similar weighting to exams and written assignments (36% and 33% respectively) and consistent with lecturers, gave oral assignments the least weighting (12%). Collectively, the three stakeholder groups indicated that exams and individual assignments, in that order, should be given the most weighting in an assessment structure. This apparent aversion to oral assignments will be discussed in the "Implications for Practitioners" section.

Self Assessment

Self-assessment must be included as part of the total assessment grade.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 27: Question 20 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	3.29	3	1.14
Lecturers	4.00	5	1.00
Students	2.95	3	1.07

As may have been expected, students were the keenest to have self-assessment as part of the assessment process. The lecturers were not in favour of self-assessment, as evidenced by a “disagree” (4) as a mean and the most common response was “strongly disagree” (5). Only one lecturer agreed (2) with this statement. The API had a slightly negative response to this statement, as indicated by their mean score (3.29).

Peer Assessment

Peer assessment must be included as part of the total assessment grade.

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 28: Question 21 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	3.29	3	0.83
Lecturers	3.38	4	1.04
Students	3.17	3	1.06

As per the previous statement, students were more in favour of peer assessment than any of the other stakeholder groups, except for University of Queensland students, who compared to all other stakeholder groups and student cohorts, had the highest mean score (3.57) and their most common response was that they disagreed with this statement. The lecturers were not in favour of peer assessment, as evidenced by their most popular response of “disagree” (4) and the relatively high mean score. The API mean score and mode for this statement and the previous statement on self-assessment were exactly the same (3.29 and 3 respectively).

Case Studies

Real life case studies should be included as part of the total assessment grade.

Strongly Agree — Strongly Disagree
1 2 3 4 5

Table 29: Question 22 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	1.79	2	0.58
Lecturers	1.92	2	0.76
Students	2.14	2	0.99

Consistent with the question on real life case studies being included in the curriculum, all three stakeholders agreed that they should also be a part of the assessment grade. Agreement is indicated by a mode of 2 (“agree”) and the mean score for all three stakeholder groups is also close to 2.

Research Paper

A research paper must be included as part of the total assessment grade.

Strongly Agree				Strongly Disagree
1	*2*	*3*	*4*	*5*

Table 8: Question 23 results based on stakeholder group

Stakeholder	Mean	Mode	Standard Deviation
API	2.14	2	0.77
Lecturers	2.54	3	1.20
Students	2.73	3	1.08

Students indicated the highest aversion to including a research paper as part of their assessment, in particular University of Queensland students who responded with the highest mean score of all stakeholder groups and student cohorts (3.13). The API on the other hand, was quite keen to include a research paper, as evidenced by their mean score of 2.14 and a mode of 2 ("agree"). Lecturers were more diverse in their responses, as indicated by a relatively high standard deviation of 1.20, the highest of all stakeholders.

Summary of Findings

Curriculum Design

All stakeholders agree that input into the design of the undergraduate property valuation curriculum should be provided by all involved i.e. university staff, students and industry. They also agreed that the students should have the least input. This may be because undergraduate students don't know enough at this stage about property valuation to have a marked influence on curriculum design. The situation would be different if postgraduate students were involved, as noted by Crew's (2004) research in New Zealand

> **"… the body of knowledge embodied in a classroom of experienced and mature students is impressive and the presence of industry specialists is not unusual. Harnessing those resources and adopting an "inclusive" approach brings a bonus of additional benefits…" (2004: pp5)**

The issue of a student centred versus industry centred curriculum provided an interesting result. Except for the student group, the other two stakeholder groups were more in favour of an industry centred curriculum than a student centred curriculum. It is a surprising result as the initiative in education is towards a student centred approach. This includes such things as:

- ✓ Students having responsibility and an active role in their own learning, rather than just sitting in lectures.
- ✓ Students being motivated by interest in the course and curiosity rather than grades.

- ✓ Focus on co-operative learning rather than individual learning and competition between students.
- ✓ Emphasis on lifelong learning rather than an emphasis on completing assigned work and studying for exams.

One reason for this surprising result could be that some of the respondents were unfamiliar with the term “student centred” and they may have construed that student centred meant only do what the students want to do and disregard everything else. A student centred curriculum is one that is focussed on student needs and outcomes and not a free reign for students to do whatever they want to do.

Stakeholders agreed that mentoring must be a part of all property valuation courses, with students and lecturers more in favour than API respondents. One of the reasons for this difference between staff/students and the API could be that a mentoring scheme impacts the most on the mentor i.e. API member. There is a lot of organisation involved in mentoring. The mentor has to take time out of his/her schedule to prepare, assist and follow up with their protégé, often in addition to their normal workload. Facilitation by the university takes time and effort but this time may be incorporated into the coordinator’s/lecturer’s workload. The students also puts in a lot of time but this can be taken into account as part of their program/course workload and as a learning experience, the student potentially has the most to gain from a mentoring scheme.

The inclusion of work experience was responded to very favourably by all stakeholders. This is consistent with the work done by Butler et al (1998), where the integrated curriculum includes an internship (work experience) program. The API most agreed with the inclusion of work experience into the curriculum. As they work in the field every day and possibly experienced a transition from university to the real world of work without any prior work experience, see great value in incorporating work experience into the curriculum. Field placements (work experience) in other professions are very important. This research would support this for real estate as well.

Delivery

Of note was the generally neutral response to online delivery. This could be a reflection of the relatively low take up of online study where most students choose to study online out of necessity rather than choice. Very surprising was the negative response to programs being learnt totally online. This is quite surprising as the statement does not state that “property valuation courses must only be learnt totally online, which means there would be no face-to-face or other delivery modes, which would understandably provoke some very negative responses. Even though there was no indication through the pilot study and numerous drafts that this question was poorly written, its wording may have caused this misunderstanding.

Field trips are very important, especially from the API perspective, as are guest speakers. One reason for this is that certainly in South Australia, valuation courses in the past incorporated regular field trips. Many current API members were students at this time and can appreciate the value of field trips. UniSA continues to offer a field trip and has expanded their offering as the Urban Development Institute of Australia (UDIA) South Australian sponsor a field trip centred on property development.

One issue with field trips is the time taken to conduct one which impacts on a tight lecture and tutorial schedule. Hoyt (2002) has overcome this with a self directed field trip. Students go into the field in their own time and do it on their own or in teams.

Lecturers were very happy with large class sizes (80+) but students and the API were not. Remembering that API respondents were also valuation students at some stage, it is not surprising that the responses of the API were similar to that of the students. From the students' perspective, it is quite daunting for a student to be in a large class, where there is limited interaction and learning occurs almost in isolation. From the lecturers' perspective, it is more efficient to offer one lecture to a class of 90 students for three hours as compared to running three classes of 30 students for a total of 9 hours.

Assessment

Stakeholders agreed that assessments must be based on exams, individual written assignments and group assignments. Of particular note is the aversion to group work by students. Reasons for this could be firstly, the manner in which they form their groups. If the students have a choice in who they work with, they are more likely to enjoy group work and perceive it as a positive experience. If they are forced to work with others, it may not be as conducive to learning. Secondly, to work in a group successfully assumes the students possess effective group work skills eg working collaboratively, leadership, flexibility. Sometimes, group work skills need to be explicitly taught. It can't be assumed that just because students know each other, they also get on well and can work well together.

There was also an aversion to oral presentations, in particular from lecturers. This could be because some lecturers do not see oral presentations as a legitimate or rigorous form of assessment.

Finally, there was a lukewarm response from students to the issue of submitting a research paper as part of the total assessment grade. Reasons for this could include that research papers are perceived to be too much work and they are the domain of postgraduate research students.

Interpretation of Results

Curriculum Design

The majority of respondents agree that the property valuation curriculum must have input from university staff, students and industry. The API and lecturers indicate that universities must have the highest level of input. Overall, students show that industry and universities should have the greatest and an approximately equal input into the curriculum. Universities and the API need to work closely so that everyone has a say in how the courses/ programs are taught.

All stakeholders were in agreement that the curriculum must be integrated, where concepts from a variety of areas eg valuation, law and economics are taught in conjunction with each other rather than in isolation. The students felt more strongly about this than the other two stakeholder groups. Universities need to ensure that where appropriate, issues are brought together and taught as one, so that students gain a better understanding of the world in relation to property.

All stakeholders were in agreement that the curriculum must be problem based, using real life property issues and case studies as the basis for learning. The API has a very important role to play in providing the universities with real life case studies in their local market.

Stakeholders prefer the curriculum to be industry centred rather than student centred. The API could develop a list of qualities that they are looking for in graduates. This could assist universities in tailoring the curriculum to further meet the needs of industry.

Stakeholders agreed that mentoring must be a part of all property valuation courses, with students more in favour than the other two stakeholder groups.

Work experience and its incorporation into the university curriculum, was the most emotive issue, so far as curriculum design was concerned. All three stakeholders were strongest in favour of this aspect of curriculum design than any other. Rather than “re-inventing the wheel”, best practice concerning work experience and mentoring schemes could be shared amongst all states and their respective API divisions and universities, so that these programs can be tailored to meet the needs of the local market and stakeholders.

Delivery

Conducting classes only in a face-to-face classroom based manner and incorporating some online component resulted in relatively neutral responses from all stakeholders. This is surprising given the resources that have been spent on Information Communication and Technology (ICT) and online delivery in many areas of education, not just universities.

Conducting classes in a totally online manner provoked the most negative reaction from all stakeholders so far as delivery is concerned. This may have

been to the misinterpretation of the question, due to its wording. However, online study is more popular with post graduate students. One reason for this could be that post graduate students are also working full time and do not find it as easy to attend classroom based lecturers as undergraduate students. For post graduate students who don't work and live in a capital city with a property university, online study is an attractive option.

Making field trips a compulsory part of the program provoked the most favourable responses of all statements related to delivery. The API indicated they were more strongly in favour of field trips (and guest speakers) than any other stakeholder group. Universities often complain that field trips cost a lot of money, and they do. There are organisations such as the Urban Development Institute of Australia (UDIA) and the API in South Australia who sponsor field trips. There is no reason why this couldn't work in other states.

There was a large variation in response to class size of lectures. The API and students preferred class sizes of 20 to 39 students whereas lecturers were happy to have 80+ students in a lecture. On the issue of tutorials, there was almost universal appeal to class sizes of 10 to 19 students.

Assessment

Stakeholders agreed that assessments must be based on exams, individual written assignments and group assignments but the emphasis on each component varied. All stakeholder groups agreed that exams should be given the greatest emphasis, followed by individual written assignments. Compared to the API and lecturers, students were least in favour of exams, although they agreed in general that exams should have the greatest weighting.

Self assessment and peer assessment generally attracted negative responses from the stakeholders except for students who had a neutral response to the issue of self-assessment.

Real life case studies, as part of the assessment process, resulted in a positive response from all stakeholder groups. This is consistent with the responses on real life case studies as a component of the curriculum design and delivery.

A research paper as part of the assessment grade resulted in a favourable response but not as strong a response as the issue of including real life case studies as part of the assessment grade.

When stakeholders are developing assessment tasks, consideration needs to be given to including exams, written assignments and group assignments as part of the assessment regime. Real life case studies lend themselves particularly well to group work.

Conclusion - Implications for Practitioners

In conclusion, this section aims to provide some guidance to practitioners in property and property education and so meet the aim of the research question. My discussion in relation to practitioners is limited to the API and property lecturers.

Curriculum Design

- ✓ There needs to be closer collaboration between the API and universities in designing property valuation curriculum if it is to be relevant to students and their careers in property. As Callanan et all (2003) commented in relation to Massey University (New Zealand), regular feedback from students and industry was necessary to ensure the best possible property education was provided. Boyd (2000) points out that traditionally, Australian universities have not had regular communication with the industry professionals to ensure that their courses meet the demands of industry. One important implication is that universities are under threat from other education providers who are capable of acting as competent education and training providers.

  The Australian curriculum needs some direction from the national education body of the API, which individual state divisions can take into consideration when working with universities in assisting them in developing the curriculum.

"An integrated real estate program has tremendous potential to enhance the educational experience of students …." (Butler et al 1998)

- ✓ A common theme in this survey is the positive responses to the use of problem based learning and real life case studies. This supports Anderson et al (2001), who point out that educators need to help students develop critical thinking skills, sharpen their problem solving abilities and foster an environment that promotes group work. Collaboration between the API and universities whereby the API could provide and assist with real life case studies would surely enhance the curriculum.

- ✓ Mentoring programs are working successfully at UniSA and RMIT. The mentoring program at UniSA is embedded in the curriculum whereas it operates on a more informal basis at RMIT. This could be one of the reasons that students from these two universities ranked so highly the value of mentoring schemes.

- ✓ Similarly with the issue of work experience, RMIT and UniSA have incorporated this into their curriculum (RMIT more formally than UniSA)

and students from these two universities gave this issue the highest ranking of all other university student groups. Massey University (NZ) are also encouraging students to spend time in the workforce while gaining credit towards their degree (Callanan et al 2003)

- ✓ There is some evidence to suggest collaboration between universities and the sharing of best practice would assist all universities in raising the standard of property education. This includes mentoring and work experience and finding out what QUT and UQ are doing so well for their students to be the most satisfied of all property students with their course.

Delivery

- ✓ Universities need to look at time and money spent invested in the use of online delivery in their programs. Both the API and university staff was quite neutral in their responses to some online delivery.

  A comparative in depth study of online learning in the two Queensland universities could provide some insight as students at QUT were most in favour of some online delivery but students at UQ were least in favour of it.

- ✓ Field trips should be a compulsory part of the curriculum. The API is particularly keen on the idea as are the students from UniSA, where field trips are incorporated into their program.

  "The field trip allows students to learn from actual observation and apply textbook material to real life situations. It meets the important learning objective of transforming information to personal meaning."(Hoyt 2002)

- ✓ The API is eager to see the use of guest speakers from industry as part of the program. Lecturers and students would also like to see this. This supports the research conducted by Callanan et al (2003), where graduates requested more guest speakers to cover concepts as well as career opportunities.

- ✓ All stakeholders would like tutorial class sizes of 10 to 19 students. Ideal lecture class size varies greatly from 80+ (lecturers) to 20-39 students (API and students). Discussions between the API, university staff and students should take place so as to be given the opportunity to provide input into ideal class size in their state.

Assessment

- ✓ Assessment should include a combination of exams, individual work and group assignments. The weighting of each could be worked out on the usefulness of each method as it pertains to each subject. Understandably, students have some aversion to exams, compared to the API and lecturers as students have to sit them! All stakeholders

agree that individual oral assignments should have a limited role in assessment.

- ✓ There needs to be closer collaboration amongst universities and the API, so as to share best practice and ensure that property education is meeting the needs of all its stakeholders.

Further study

This research has produced some findings on undergraduate property valuation courses based on mail surveys. To obtain more detailed and in depth information, interviews could be conducted. Lecturers could be interviewed so as to discover innovative methods of teaching and learning at their respective universities. Recent graduates who are working in valuation could be interviewed as they would have a very good idea of what is needed to succeed in the workplace as they have made the transition from study to work.

Overview

The aim of this research was to gather the views of the stakeholders in property education so as to improve the standard of property education throughout Australia. The question was asked:

> ***What are the views of students, academic staff and industry on property education in terms of curriculum design, delivery and assessment?***

The question was asked because if input is gathered from the stakeholders i.e. academic staff, students and industry, in relation to their thoughts on property education, then hopefully changes can be made so as to make property education more relevant to the needs of industry, students and universities through informed decision making.

The responses to the research question can be summed as follows;

- ✓ Ask all stakeholders for their input into the design of the curriculum.
- ✓ Provide a curriculum that is integrated and includes real life case studies, mentoring and in particular work experience.
- ✓ Include field trips and guest speakers as part of the delivery of the program.
- ✓ Keep tutorial class numbers between 10 and 19.
- ✓ Use a combination of exams, individual assignments and group assignments as part of the total assessment grade.

It comes as no surprise that the findings from this research is consistent with that of the literature, in particular as it pertains to problem based learning, integrated curriculum and field trips and guest speakers.

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Appendix A – Survey Form

PROPERTY EDUCATION

How should it be taught?

- ✓ The research aims to identify how property education should be taught in relation to curriculum design, delivery and assessment.
- ✓ To complete the questionnaire, answer the questions by either ticking the appropriate box or circling the appropriate answer.
- ✓ Then place the completed questionnaire in the envelope provided and seal the envelope.
- ✓ Hand the sealed envelope back to the person who distributed the questionnaire.

Demographic Data

Which state/territory do you reside in?

NSW
Victoria
Queensland
South Australia
Western Australia
ACT

Which category best describes you?

Property student
Property lecturer
API Committee member

Curriculum Design

1. The property valuation curriculum must have input from **(tick one only)**

- University staff only
- Industry only
- Students only
- University staff and students
- Industry and students
- University staff and industry
- University staff & students & industry

2. Level of input from each stakeholder must be **(score should total 100%)**

University _____%

Industry _____%

Students _____%

TOTAL 100%

For questions 3 to 16, please circle a number from 1 to 5.

3. The curriculum must be integrated, where concepts from a variety of areas eg valuation, law, economics are taught in conjunction with each other and not in isolation.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

4. The curriculum must be problem based. In other words, use real life property issues and case studies as the basis for learning.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

5. The curriculum must be student centred and focus on the needs of the students and their educational outcomes.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

6. The curriculum must be industry centred and focus on the needs of the industry.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

7. All property valuation courses must adopt mentoring schemes (e.g. guidance from an industry expert).

Strongly Agree *Strongly Disagree*
1 2 3 4 5

8. Property valuation courses must include some work experience.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

9. Property valuation courses must only be conducted within the University context and all work experience should be undertaken after the completion of the degree.

Strongly Agree *Strongly Disagree*
1 2 3 4 5

Delivery

10. Classes must be conducted only in a face-to-face, classroom-based manner.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

11. Some online component must be incorporated into the curriculum.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

12. Property valuation courses must be able to be learnt totally online.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

13. Where appropriate, field trips must be a compulsory part of the program.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

14. Guest speakers from industry must be invited to address students.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

15. Real life case studies must be a part of the program.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

Studies conducted nationally and internationally have shown that class size is a very important factor in the quality of learning.

16. Given the purpose of lectures is to give information and demonstrate concepts, optimum numbers of students in lectures is **(tick one only)**
    a. Less than 20
    b. 20-39
    c. 40-59
    d. 60-79
    e. 80+

17. Given the purpose of tutorials is to ask questions and promote discussion, optimum numbers of students in tutorials is **(tick one only)**
    - Less than 10
    - 10-19
    - 20-29
    - 30-39
    - 40+

Assessment

18. Assessments must be based on
(tick one only)

- Exams only
- Individual assignments only
- Group assignments only
- Exams and individual assignments
- Exams and group assignments
- Individual and group assignments
- Exams/individual assignments/group assignments

19. Weighting of assessment must be **(score should total 100%)**

Exams	____%
Individual written assignments	____%
Individual oral presentations	____%
Group assignments	____%
TOTAL	**100%**

For the remaining questions, please circle a number from 1 to 5.

20. Self-assessment must be included as part of the total assessment grade.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

21. Peer assessment must be included as part of the total assessment grade.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

22. Real life case studies should be included as part of the total assessment grade.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

23. A research paper must be included as part of the total assessment grade.

Strongly Agree				*Strongly Disagree*
1	*2*	*3*	*4*	*5*

Thank you for your participation