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The role of assessment in managing student diversity

Abstract

Purpose: The purpose of this paper   is to demonstrate the use of assessment to manage some of the challenges diversity brings into the teaching and learning in international real estate degree programs.

Design/Methodology/Approach: The paper is a multi-year case study of a course in real estate valuation in a Swedish University. The impact of assessment on student experience and performance was analyzed.

Findings: Changes in the timing and rules of assessment have an appreciable impact on differences in student performance. However, some diversity problems must be addressed also at the program level.

Practical implications: Real estate departments must exercise pedagogical leadership if they are to continue to effectively provide globally relevant education.

Originality/value: This paper analyses one of the consequences of the expansion of international real estate education into a non-traditional destination for foreign students.

Keywords: real estate education, assessment, student diversity, internationalization

Paper type: Case study

1. Introduction

One of the features of real estate education in Europe has been the growth in the number of programs especially at the postgraduate level. Between 2000 and 2006, the share of postgraduate programs in the number of RICS accredited programs increased from 13 percent to 54 percent (D'Arcy & Taltavull, 2009). This has taken place against the backdrop of a general expansion of access to higher education in many countries (Biggs & Tang, 2007). This growth has also taken the form of internationalization of program provision in the Nordic countries who are relative newcomers to international education, compared to the more established destinations such as the US, the UK, and Australia. For example, the oldest international postgraduate real estate program in Sweden is only 11 years old. A consequence of these developments is a sharp increase in diversity in student backgrounds and abilities at all destinations.

At the same time an increasingly globalised real estate market and the evolution of the nature of services provided by the key employers places new demands on the skill set of the real estate graduate. As D'Arcy and Taltavull (2009) put it, graduates need "new competencies to meet the new market realities". A basic inference is that today's real estate graduate needs cross-cultural teamwork skills in order to thrive in a globalised real estate market.

The diversity thus presents opportunities and challenges for both educators and students. On the one hand, the growing presence of foreign students creates opportunities for home students to acquire international experience without going abroad, a phenomenon described as internationalization at home. According to Wachter (2003, p.6) this process entails introducing intercultural and international dimensions in the teaching and learning process. This can happen at the program level; it can also be at the initiative of individual teachers when they redesign their individual courses (modules). The goal then is to enable all students to become professionals capable of fully functioning in a globalised job market by providing good education in a cross-cultural setting.

However, the diversity also creates a series of challenges. Many of these programs are given in English and the level of English proficiency can vary, depending on the origin of the students. These students also bring previous experiences from the academic cultures of their home countries which may not be compatible with that of the host country. Dimensions of academic culture could include relationships with teachers and fellow students, ways of preparing for examinations, and attitudes towards group work and plagiarism. Thus even though the number of international real estate programs has grown in number and the diversity of background of the students, not much effort has gone into understanding the impact of these changes on the quality of teaching and learning in European real estate programs. On a broader level, even though there have been discussions and efforts towards change in the focus in higher education from teaching to learning, Hermans (2005) warns that if no deliberate changes are made in response to growing internationalisation,

"*…institutions will be forced to realise that internationalisation by itself does not add value to teaching and research. Increased numbers will in the long run affect the daily life in institutions and uncover that the existing modes of governance, teaching and administration*

do not adequately cater for the different needs and concerns of diverse student and staff populations. If not taken care of appropriately the risk will be of systems developing within systems, increased competition for resources, and dissatisfied participants, both home and international".

It is important to emphasize that these adjustments are not just to contain the negative fallout from diversifying the classroom; it is a legitimate attempt to provide education that is responsive to the needs of a changing marketplace. The purpose of this paper is therefore to highlight some of the challenges diversity brings into the teaching and learning of real estate degree programs. It will also discuss the effectiveness of possible interventions that will enable host universities to achieve their aim of creating international learning environments for both home and foreign students, as well providing graduates with the skills to cope with the changing demands of an increasingly borderless real estate job market. The specific role of assessment in influencing student behavior will be the primary focus of this paper. The paper is based on a case study of a course in real estate valuation in an international postgraduate program in a large, Swedish University. Course is used here to mean a module in a degree program. The rest of the paper is as follows. The twin issues of constructive alignment and the role of assessment in influencing student behavior will be discussed, followed by the description, analysis and discussion of the case. The paper will conclude with the authors' reflections and recommendations for practice.

2. Constructive alignment

The concept of constructive alignment is based on recognition of differences in approaches to learning as a result of differences in student backgrounds (Biggs, 1999). As figure 1 below shows, two extremes of student behaviors are present in class today. The student with a deep approach to learning (Biggs uses the label "Academic Susan") uses higher level cognitive skills naturally while the student with a surface approach to learning (labeled "Non-academic Robert") has to be compelled by circumstances to work at the same rate as Susan, given his low-level of engagement, probably due to his background.

Figure 1: Student orientation, teaching method and level of engagement. Source: Biggs (1999), p. 59

The argument of Biggs (1999) is that the standard lecture format with exams at the end makes it easy for unmotivated students to remain passive, leading to underperformance and possible low self esteem. It is also possible that motivated students with high self confidence also underperform in this format due to the design, because they could postpone a significant amount of necessary work to the end.

His recommended solution to the problem is to implement the concept of constructive alignment. According to Biggs (1999, p. 64), aligned teaching entails a consistent relationship between course objectives, course activities and assessment methods.

"The curriculum is stated in the form of clear objectives which state the level of understanding required rather than simply listing the topics to be covered. The teaching methods chosen are those that are likely to realize those objectives; you get students to do the things that the objectives nominate. Finally, the assessment tasks address the objectives, so that you can test to see if the students have learned what the objectives state they should be

learning. All components in the system address the same agenda and support each other. The students are "entrapped" in this web of consistency, optimizing the likelihood that they will engage the appropriate learning activities".

An example of the use of constructive alignment is problem-based learning (PBL). Anderson et al (2000, p.36) describe PBL as an ordered, explicit multi-stage learning process, that involves (1) introduction of a problem; (2) inquiry and formation of hypotheses; (3) self-directed research, including data collection; (4) testing of the hypotheses; and (5) evaluation and conclusions. Walsh (2007, p.81) points out the material nature of the problem sets the boundaries of what the student learns, relative to problem-solving learning which consists of requiring students to solve problems within the confines of the discipline. An added advantage of PBL is the active self-directed student involvement is required and the ability to learn is practiced and assessed among other things (Walsh, 2007, p.84). Anderson et al (2000) illustrate different issues that could form the basis of PBL in real estate education. Biggs (1999) considers PBL as the best example of an aligned course.

The lecture-alone approach and PBL could be seen as two extremes of the possible course design choices that could be evaluated using the constructive alignment criteria. Other design choices could fall in-between these two; for example a course could be a mix of lectures, followed by a project that is student centered, self-directed, requiring students to reach beyond the confines of the particular course and apply either previous courses or disciplines not taught in the program.

Rust (2002, p.148) identifies three stages of design activity in a course that fulfils the criterion of constructive alignment. The design starts with a specification of learning objectives in measurable term, followed by designing and selecting appropriate learning activities for the students to enable them acquire the knowledge and skills the course entails. This is followed and/or accompanied by assessment tasks that enable the teacher to determine the extent to which the students have attained the learning objectives.

3. Assessment and student learning

The role of assessment in student learning has been known for some time. In fact its role is so important that it determines what students effectively do in a course. As a result, students may focus on exam requirements at the expense of whatever the teacher wishes them to learn. The part of the course that students focus on as a result of assessment requirements becomes the *hidden curriculum* (Sambell & McDowell, 1998).

Gibbs and Simpson (2004) identify a number of roles of assessment. Well-designed assessment can increase the time of active student engagement in and out of class and compel students to spread effort evenly during a course. It can also lead students progressively to deeper levels of understanding. As will be shown in this paper, interim assessment tasks in particular can be used to equalize critical prerequisite knowledge among students of diverse backgrounds before higher level work commences. Fundamentally, assessment communicates what is acceptable performance and accomplishment (Wolf, 1993). Assessment is so fundamental to student behavior that Brown (2001) emphasizes that "assessment shapes learning so if you want to change learning then change the assessment method". The concept of constructive alignment and the role of assessment in changing student behavior are the principal ideas used in dealing with the diversity problem in the case described below.

4. Case study – a course in real estate valuation

The case concerns a course in real estate valuation which mixes students from two different graduate programs (taught in English) – Program A and Program B. We use the term course to mean a 7.5 ECTS credit module (equivalent to 200 hours workload) in a postgraduate degree program. There were significant differences in students' background. Program A admits students based on standard requirements - a relevant degree and English language proficiency. Before this course, they take at least 3 full preparatory courses – in real estate investments, applied corporate finance and real estate market analysis. For these students, the valuation course is elective but is perceived as directly relevant to their future professional practice. Program B is part of a Swedish government funded development assistance program that draws students mostly from the former Soviet countries and nowadays the Balkan countries as well as East Africa. A weakness of this group is that a significant number of them do not have strong quantitative skills and high levels of proficiency in English on admission. Under normal circumstances, several of these students would not meet the admission requirements of most international programmes in a European University. In addition, they come to the valuation course doing the equivalent of only one full preparatory course in real estate investments and intermediate micro/macroeconomics. While the valuation is compulsory for program B students they see it as relatively peripheral to their future careers as they are trained mainly to work as land administrators and land lawyers.

The challenges created by this task include the following:
- Large numbers of students
- Diversity in terms of academic and cultural backgrounds
- Wide diversity in English language skills; including reading, writing and speaking skills.
- No program-wide requirement to improve English skills at any point
- No prior training in group work or cross-cultural communication
- A short time-span (2 months of class time)

Years 1, 2 and 3
The course was inherited by the authors 1 and 2 from a previous teacher and the initial decision was made to replicate the previous design. The initial design thus consisted of a set of lectures covering basic theory, followed by a set of tutorials around a project supported with detailed guidelines, accompanied by guest lectures on various applications of theory. The course ends with a submission and oral presentation of the project report, followed by a final exam (Figure 1). Grades (on a 3-4-5 scale, with 5 being the highest) were weighted with the exam taking 75 percent of the final grade with the project taking the remainder.

Figure 2: Original course design

The outcome showed a sharp disparity in student performance between the two programs - about 30 percent of the students from Program B failed the first exam at the end of the course a situation that remained the same over three years (Table 1). What was worse, the group work did not play out as expected. The groups were laden with conflict as the disparities in academic background, work ethic and English language skills took its toll. In addition, students perceived a lack of fairness in the grading of the project and there were accusations of free-riding. Some students were angry enough to recommend that the teacher should be fired. Sample feedback (response rates averaged 48 percent during the first three years) included the following:

"I have been in groups at Universities with people from many countries, worked in international firms, large and small projects..... [and more of the same]....and I have NEVER met such stupid, unmotivated people before!!!"

"DO NOT put together the [...] courses. No one made any friend with this experiment. The level they have is far too low with [Program A], and the effort they put in is nearly 0%. If you think you are tired of hearing this, you haven't even heard half of what happened."

At curriculum review meetings, the general opinion was that the two groups should be separated into different courses, an extremely costly solution to the problem. The analysis of the student performance and the course evaluation showed that the diversity in student background took its toll. In addition, the decision to grade the project and include that in the final course grade backfired as the high stakes of the project generated a lot of stress within the groups. Could we find a cost-effective way to redesign the course to minimize these differences, deepen learning and improve the students' group skills?

	Program A N=25	Program B N=58
Grade	Share (%)	Share (%)
5	20	4
4	44	31
3	20	36
Fail	16	29

Table 1: Grades distribution at the end of year 3

We responded by decreasing the importance of the project grade in the final grade in order to focus their attention on the process rather than the outcome. We also introduced lectures in group work, hoping it might help students to manage their expectations around the disparity in skills and work ethic. The evaluations remained the same as before. In addition, the performance in the 'weak' end of the program did not improve.

Years 4 and 5
At the end of the third year, we undertook a major review of the course in consultation with the third author at the University's teacher training center. The primary point of departure was to analyze the extent to which the course was aligned according to Biggs (1999). We also explored the possibility of changing the rules of assessment to increase student engagement as Gibbs and Simpson (2004) suggest. In reviewing the alignment of the course, we examined the clarity of learning objectives, the capacity of the course activities to provide student-centered learning opportunities, as well as the extent to which assessment influences student behavior and gives an indication of the extent of achievement of course objectives.

The authors determined the course objectives were clear enough. However, the role of the project in facilitating active and deep learning was undermined by skill deficiencies largely in Program B as well as the placement of the final exam at the end of the course. The latter reason enabled students to postpone reading the course book until a few days before the exam, which meant they started the project with little knowledge of theory. The examination questions were also found to be too conceptual to test analysis and judgment, critical skills in valuation and fundamental skills expected of a real estate graduate as indicated in the work of Galuppo and Worzala (2004).

In response to this we introduced a number of small but important changes in subsequent sessions of the course. We introduced remedial tuition for program B students on the difficult parts of the entry-level knowledge required to succeed in the course: a mix of investment mathematics, capital budgeting and financial modeling in Excel, according to recommendations in Rosser (1998). We had identified this issue as a major point of conflict in the groups as shown by the feedback above. This was only a first step in that regard. We started off by making sure to be explicit in the course description our plans concerning teaching methods and assessment (Caroll, 2005). Perhaps most importantly, we introduced a mid-term exam before the project in order to capture student time and attention (Gibbs, 1999; Gibbs & Simpson, 2004). This was a follow-up effort to further reduce the disparity in student backgrounds and also ensure even the motivated students do not postpone critical learning activities. The consequence was to enable all students to have a platform for contributing in the project group. The new course design is shown in Figure 3. The grading system was changed to A-F, where E is the minimum pass grade from the 3-4-5 scale where 3 was the minimum grade. This was one of consequences of the Bologna process aimed at improving the portability of qualifications of graduates in the European Union.

Figure 3: New course design

To minimize the negative stress around free-riding we made passing the mid-term exam and the project the basic criteria for passing with grade E. To avoid mediocre project reports, we set out specific and demanding criteria for passing. In addition, we maintained a tradition we inherited from the previous teacher – the presence of a practitioner acting as a consultant during the project.

The result of these changes was positive – student performance increased across the board in the following two years even as the class size increased to include a third program (Tables 2 and 3). In addition it is important to see that the performance of program A also increased in appreciable fashion in year 4. The observation the authors make is that measures taken to help weak students end up benefiting the strong students as well.

	Year 4		Year 5		
	Program A N=13	Program B N=54	Program A N=25	Program B N=49	Program C N=20
Grade	Share (%)	Share (%)	Share (%)	Share (%)	Share (%)
A	61,5	18,5	8	18	21
B	31	27,5	48	29	21
C	7,5	20,5	36	25	53
D		24	4	6	0
E		2	0	22	5
F		7,5	4	0	0
Total	100	100	100	100	100

Table 2: Grade distribution at the end of year 4

Feedback was largely positive. Response rates also increased to 86 percent mainly because at the start of a new session we discussed the previous year's evaluations and showed our design response to the evaluations. Concerning the overall structure and balance of the course, we had the following comments:

"At the beginning I had problems comprehending the content. But during the project, I got better."

"It was structured to involve and interest the beginners."

"I think the idea of the midterm exam was genius; it helped us to learn the concepts necessary for the project."

"So far it is the best course I have attended here at the University save for some few things. ...the workload is too demanding; we study other courses apart from valuation…weekends are better be left for self study."

The last comment underscores a danger with redesigning courses to increase student engagement. It could take away attention from parallel courses. Balance and program level dialogue is needed to ensure these design changes do not remain discretionary and undermine the intentions of the program as a whole. Concerning the project:

"The project gave me headaches, because I thought we won't make it in time. But at the end I realized that the deadlines were realistic, so anyone can fulfill the assignment on time."

"The project was really engaging and it tested our team working skills a lot. However, at the end of it, I learnt a lot from my colleagues and it helped me to appreciate the theory better."

"Even the non valuers appreciated the practice." [1]

Concerning group work:

"… I discovered that people have different talents and there are people who are better than me in my field of specialization, surprise!!! I was humbled."

"Some people always want you to follow their time table, that theirs is not flexible."

"I really enjoyed the Project working with 4 different guys from different countries and perhaps background. We started as enemies ended up as lovely big friends!"

It is important to also highlight the students' reports of their experience of teamwork in the course. Table 3 below show student responses to the statement: "The course has developed my ability to work in teams". The students were required to rank their experience on a 5-point Likert scale indicating extent of agreement/disagreement with the previous statement.

Answer choice	Distribution (%) N=71
Strongly disagree	2,8%
Disagree	9,9%
Maybe/maybe not	19,7%
Agree	46,5%
Strongly agree	21,1%

Table 3: student opinions on the development of team skills in the course

As the table shows, even though majority of the students agree the course has improved their group skills, a number of groups still found it difficult working together. The comments below illustrate the reaction of a group that failed to work well.

> *"Actually my team work was not cooperative. I spent with them bad times! They weren't organized and one person wanted to do most of the work and we did not understand most of the job!!"*

This comment and table 4 indicate that even if the interventions have improved academic performance, two months was still too short to impart more complex skills such as group and language skills. Given that these are fundamental skills required of today's graduate in a rapidly changing and increasingly globalised employment market, and given that they take a longer time to teach, program level efforts must be pursued to address the issues. This should be done by articulating them explicitly as program objectives and systematically integrating it into different courses in consistent fashion with specific plans on how they will be taught, practiced and assessed. The teaching of these skills must be assigned to specific courses and involve changes in the relevant course activities in order to impart these aptitudes. The activities must remain invariant even if the course (module) changes hands. These skills must thus be the collective responsibility of the program rather than the initiative of a few teachers in single modules if programs want to be competitive and adaptable to changes in the stakeholder needs and expectations. This is also one way of ensuring innovations in one module does not undermine the students' experience of a parallel course.

5. Conclusion

Growing internationalization of real estate degrees and expansion of access to universities will lead inevitably to diversity in the classroom. The need to manage the challenges that come with it and maximizing the benefits means that programmes in European universities will increasingly need to be integrated in systematic fashion, with visiting students studying side-by-side with home students. Diversity in cultural and academic backgrounds as well as differences in academic skills means that this integration will not be devoid of difficulties. It is therefore important to understand the nature of these difficulties and work out ways to deal with them.

What has become evident from the past few years of teaching this course is that course design can solve some of the problems such as harmonizing student backgrounds in teaching specific disciplinary courses. The case study described above shows just that. Constructive alignment provides a powerful framework to evaluate whether a course has been effective or not. Deep understanding of the important role of assessment also enables teachers to design appropriate interventions to increase student engagement and learning. The case above confirms what educational researchers have always known: assessment matters. The case also illustrates that small interventions can have big effects. These changes not only benefit the "weak" but also the "strong" students. Pedagogical knowledge is key to accomplishing this. Training all teachers in course design appears to be an important way to help teachers troubleshoot and design appropriate interventions in order to manage one of the consequences of internationalization of real estate education. However, a group of teachers in a single course can only do so much.

It takes sustained program-level efforts and multiple courses to teach other complex skills such as cross-cultural team and language skills. For this to happen, programs must acknowledge the need to reformulate program objectives to include these skills. Specific ideas to solve language skills include an early warning system to detect at-risk students. This could be done by raising the cutoff point for TOEFL/IELTS scores for example and requiring students to do additional language training. This is then followed by written assignments done to consistent standards in a number of modules. In addition, cross-cultural skills must be taught, not only with an initial training seminar but also with rules requiring teachers to assigning students to groups with the possibility of student peer assessment during group work (Dyrud, 2001). Students must also be given the chance to meet in a social setting a few times at the beginning to enable them become familiar with each other before they start working together in the courses.

This paper uses the case of a real estate course in a Swedish University to illustrate the difficulties of integrating different groups of students in common courses. The authors believe that this case is of interest in wider circles in Swedish and other European Universities, as they seek to increase the quality of learning in the face of growing diversity of student backgrounds. The integration of the various groups will inevitably place programs and teachers under the same kinds of challenges that the teachers in this case have experienced. It would take good course design and much energy from the teachers' side to handle this integration in order to avoid the worst negative experiences. Given that not all diversity problems can be handled at the course level, program level efforts must also be made to address the diversity problems.

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[1] [Some of the students already have professional backgrounds in real estate valuation].