Managing the cross-cultural classroom: real life experiences for undergraduate students

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ABSTRACT  Replicating the global and national business environment within the classroom presents a challenge to educators. Students’ learning outcomes in accounting subjects of auditing and taxation appear to suffer considerably when practical experience is lacking in the curricula. Studies have shown that practical experience provides the opportunity to integrate theory with practice and so enhance learning outcomes. Academics in an Australian School of Business have implemented a program of introducing selected current affairs articles, with defined discussion questions, as an exercise in creating a surrogate for practical experience so as to create a link between theory and practice for the undergraduate student without access to actual practical experience. In this context, this study examines whether students from a Non English Speaking Background (NESB) achieve similar learning outcomes as students from English Speaking Background (ESB). The Biggs 3P Model of Teaching and Learning provides the framework for the study.

Keywords  cross-cultural differences/learning outcomes/international students

INTRODUCTION

Undergraduate students take subjects of auditing and taxation as mandatory units when qualifying for professional accounting body recognition of their business degree. Many experience difficulty with these subjects, as they do not have the underlying practical experience and understanding against which to relate the theory being learned in the classroom. The authors, in an attempt to create a surrogate for practical experience within the classroom, introduced a program whereby students were given newspaper articles relating directly to the particular topics being studied. In this current climate of auditors and audit firms moving from the business pages of the daily broadsheets to the front pages, Andersen, Enron, HIH, OneTel to name a few, a wealth of material was constantly available from which to choose.

The challenge facing the authors was to create a surrogate for practical experience in the classroom, and to do so in a manner in which both English Speaking Background (ESB) and Non-English Speaking Background (NESB) students had enhanced learning experiences; such that qualitatively better learning outcomes would result. The numbers of overseas students who are currently and potentially NESB students heightens the challenge. In September 2002 the number of overseas students in Australia was 150,523 (IDP Education Australia, 2002a; IDP Education Australia, 2002b), while at Swinburne University, overseas students in the Bachelor of Business comprise 33% of the...
cohort. The solution, in this case, was to select current newspaper articles and attach discussion questions to provide a framework within which students could relate the theory being learned to the practice of the subjects in the wider community, both local and international.

**Literature**

Studies in student learning have highlighted the importance of presage factors, in particular those of prior knowledge, ability and motivation of which motivation is one subject of this study (Biggs, 1999). The model, included as Figure 1, shows presage factors as those the students brings with them to the learning experience.

**Figure 1**
The 3P model of teaching and learning (Biggs, 1999: 18)

Biggs considers two aspects of presage: the student factors as mentioned above and also those within in the teaching context. To that end Biggs highlights five teaching context presage factors; namely objectives, assessment, climate/ethos, teaching and institutional procedures, of which climate/ethos is another subject of this study. While enjoyment and interest are separate factors of motivation from the student perspective and as such, extremely difficult for the teacher to influence, they are combined from the teaching context perspective and tested, as a surrogate to practical experience, as contributing to the creation of the classroom climate, a factor within the teaching context realm and well within the teacher’s influence in order to bring about qualitatively better learning outcomes for the students.
Later research into student learning has focused on approaches to teaching as a means of improving the learning experience for students (Prosser & Trigwell, 1999; Trigwell & Prosser, 1997). This study examines the influence of a particular intervention in the classroom to influence the climate/ethos within the classroom so as to provide more appropriate learning activities in order to improve learning outcomes. Links have been made with qualitative learning outcomes and the iteration between theory and practice (Tempone, 2001; Tempone & Martin, 2000). What then of the student without prior knowledge, without motivation if they are only undertaking the subject as a mandatory requirement of a degree, and without the opportunity to link theory and practice as they are full time students without any relevant commercial work experience? Further, is language an issue for students when programs introduce activities to enhance interest and enjoyment in order to bridge the gap between theory and practice, programs that are highly dependent on literary and verbal skills?

Friedlan, in a study of two cohorts taught under a traditional technically focused course and a non-traditional method based on critical thinking and discussion, found the second cohort, when surveyed at the end of the course, displayed a significant positive change in their perceptions such as to be more closely aligned with the requirements of the accounting profession (Friedlan, 1995: 53). Mladenovic reported similar results in a study where “substantial non-numeric exercises were included for discussion in weekly tutorials, exercises such as articles from the accounting literature, cases on controversial issues requiring subjective judgments, and critical evaluations of topical issues (Mladenovic, 2000: 144)”. There have been many attempts to provide links between theory and practice in the classroom in an attempt to create an experience to equate to practical experience in a range of disciplines (Laurillard, 1984; Wiggin, 1997; Yap, 1997). In accounting contexts, studies have reported enhanced learning outcomes when wider reading, case studies and 'hands-on' active learning environments are provided in subjects of accounting, taxation and auditing (James, 2000; Kern, 2002; Weil, Oyelere, Yeoh, & Firer, 2001). Other studies in learning approaches of accounting students have focused on changing student perceptions of accounting as a means of improving learning outcomes (Birkett & Mladenovic, in press; Lucas, 2001; Mladenovic, 2000).
The impact of cross-cultural differences on student learning approaches and outcomes is of relevance to this study. Studies have indicated that preferred learning styles and ways of knowing can vary across cultures (Auyeng & Sands, 1996; DuPraw and Axner, 2003; Hofstede, 1991). Australian classrooms are no longer mono-cultural and cultural differences must be taken account of in the way students prefer to learn and in the way students interpret the material put before them. Bond, cited in a broader study by Fan et al. into choice of courses in higher education by Asian students, maintained that Chinese students do not favour academic tasks requiring verbal fluency and the development of fluent arguments as they are not used to debating with others, especially their superior (Bond, 1991; Fan, Sharples, & Karnilowicz, 1999: 100).

The structure of this paper will be to outline the program undertaken to take up the challenge to bridge the gap between theory and practice by introducing ‘real-life’ articles from the business community into the classroom for discussion. Results of a questionnaire of students’ perceptions of the classroom environment after such debates and discussions, and resulting levels of learning outcomes, are analysed using correlations to determine if learning outcomes are enhanced, and further, using T-tests to determine variation based on English as a first or second language. The challenge of providing enhanced learning outcomes to all students will be taken up.

THE STUDY

A newspaper article, with discussion questions attached, was distributed each week in lectures for discussion in the following tutorial. Students were encouraged to find other relevant practical issues and bring them for discussion in class. This was an attempt to impart practical knowledge not readily available to undergraduate students, and to do so through a perception of enjoyment and interest. The authors have undertaken an initial study to examine learning outcomes, which considered the effect of practical experience on learning outcomes, using interest and enjoyment in the context of the class discussion exercises, as surrogates for practical experience (Richardson & Tempone, 2003). This second study reports on NESB students achieving similar or different learning outcomes to ESB
students and extends the earlier work by considering the impact on learning outcomes where English is not the students’ first language.

From a total population of 185 students comprising 11 tutorial groups studying auditing and taxation, the population was stratified into ESB and NESB students. Accordingly, two samples were randomly selected for the administration of the questionnaire from 7 of the 11 tutorial groups. Sample one contained 63 selections being NESB students, while sample two contained 56 selections being ESB students. In both samples, students were surveyed on the use of ‘real life’ examples from the media to illustrate theoretical concepts presented in the classroom (See Tables 1, 2 and 3 for selected questions from the survey). The research question in this study is to gauge the extent to which English, not being a first language, has any impact on the extent to which knowledge of practical understanding enhances the learning of auditing and taxation.

For each group there are two independent variables dealing with students’ interest and enjoyment and six dependent variables relating to the development of understanding in the subject, the textbooks, related current affairs, the set assignment and issues faced by professional accountants. The main objectives of the study are to assess the following hypothesis:

H1. There is a positive relationship between the perception of the classroom environment and the surrogate practical experience in the learning of auditing and taxation. NESB students experience lower learning outcomes than ESB students. This is due to a complexity of factors such as different culture, education system, political environments and media reporting constraints experienced in the past and level of English competency.

**Independent variables**

Questions from the survey that related to the two independent variables are in Table 1.

| Question 1 | Did you find the discussion of articles, given out in class, made the tutorials more enjoyable? |
| Question 2 | Did you find the current affairs articles increased your interest in the subject? |

*Table 1: Questions on independent variables*
Interest is defined as “a quality which excites curiosity or holds the attention (Moore, 1999: 684)” while enjoyment is defined as “the experience of pleasure (Moore, 1999: 434)”. From a teaching standpoint enjoyment and interest per se are not important except in as much as they impact on students’ perception of access to practical knowledge. Enjoyment and interest are seen as one independent variable from a teaching point of view as they form the surrogate representing the presage factor of classroom climate in Biggs’ earlier model of Classroom Learning (Biggs, 1993: 75) and climate/ethos in his later model (Biggs, 1999: 18).

<table>
<thead>
<tr>
<th>Questions 1 and 2</th>
<th>For teaching purposes the sum of these two questions (See Table 1) represented classroom environment.</th>
</tr>
</thead>
</table>

**Table 2: Combined independent variables**

**Dependent variable, learning outcomes**

Six questions represent the learning outcomes being dependent, from the student presage perspective on either finding the tutorial enjoyable or interesting and from a teaching presage perspective on creating an appropriate teaching climate/environment. These independent variables represent surrogates for acquiring practical experience. Students will perceive that elements of practical experience are learned if the material was either enjoyable or interesting. Questions from the survey that related to the six dependent variables are in Table 3.

<table>
<thead>
<tr>
<th>Question 3</th>
<th>Variable 1: subject</th>
<th>Did you find this enhanced your understanding of the subject?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 4</td>
<td>Variable 2: resources</td>
<td>Did you find this enhanced your understanding of the textbook/standards/legislation?</td>
</tr>
<tr>
<td>Question 5</td>
<td>Variable 3: encouragement</td>
<td>Did you find this encouraged you to seek out newspaper articles, web sites etc. yourself?</td>
</tr>
<tr>
<td>Question 6</td>
<td>Variable 4: current events</td>
<td>Did it help understand current events as reported in newspapers, current affairs programs, etc.</td>
</tr>
<tr>
<td>Question 7</td>
<td>Variable 5: assessment</td>
<td>Did it help you with the assignment/test set for the subject?</td>
</tr>
<tr>
<td>Question 8</td>
<td>Variable 6: link to real life</td>
<td>Did the use of articles provide a link between the concepts of the subject and real life situation faced by accountants?</td>
</tr>
</tbody>
</table>

**Table 3: Questions on dependent variables**

**ANALYSIS AND FINDINGS**
The techniques employed to test this association for the two groups is correlation analysis (descriptive statistics are available in Appendix I).

**Model one:** Group 1, Non English Speaking Background (NESB)

Independent variable **classroom environment**
Dependent variable learning outcomes

**Model two:** Group 2, English speaking Background (ESB)

Independent variable **classroom environment**
Dependent variable learning outcomes

Correlation analysis can be used to determine the strength of the relationship between two variables (Anderson, Sweeney, Williams, Harrison & Rickard, 1989: 495). The word 'correlated' implies a relationship between two quantitative variables. When an increase in one variable is generally associated with an increase in the second variable, the two variables are 'positively correlated' (McClave, Benson & Sincich, 2001: 96). The numerical descriptive measure of correlation is provided by the Pearson product moment coefficient of correlation, $r$, which measures the strength of the linear relationship between the two variables: the closer $r$ comes to 1, the stronger the relationship between the two variables (McClave, Benson & Sincich, 2001: 490). In this study correlation for each is used to measure the strength of the relationship in each group between the independent variable classroom environment and the dependent variable learning outcome. Correlation analysis was then undertaken for the two models. A positive linear relationship was found to exist in both models. Correlation between the two independent variables of enjoyment and interest being the classroom environment and the 6 dependent variables making up the perception of learning outcomes were:

<table>
<thead>
<tr>
<th>Group 1 NESB</th>
<th>Classroom</th>
<th>Loutcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Loutcomes</td>
<td>*$r'$ = 0.624577</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 2 ESB</th>
<th>Classroom</th>
<th>Loutcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Loutcomes</td>
<td>*$r'$ = 0.671379</td>
<td>1</td>
</tr>
</tbody>
</table>
This is a significant positive correlation between the relevance of practical experience to the accounting subjects of auditing and taxation as expressed by the surrogates of classroom environment, and learning outcomes. Students’ perceptions are that the articles provided knowledge of practical experience which undergraduate students lack. The correlation for Group 1, NESB is lower than Group 2, ESB with the results being in line with expectations. The lower correlation for Group 1, NESB is only small and although it may be not be statistically significant, it is significant in qualitative terms as no student should be disadvantaged by teaching methods, whatever their first language.

To further examine the significance of the two results, hypothesis testing was undertaken, the results of which would accept or reject the hypothesis that NESB students were disadvantaged by this teaching method of substituting practical experience by recent real life accounting examples, resulting in a lower perception of the classroom environment and a lesser learning outcome than ESB students.

Using the Null Hypothesis it is assumed that there is ‘no significant difference’ in the two samples. This is said to be true unless sufficient evidence can be found in a sample to reject it (Anderson, Sweeney, Williams, Harrison & Rickard, 1989: 269). A one tailed Test, using a level of significance of 0.05, will be used as the concern is if Group 1, NESB achieved a significantly lower perception of classroom environment and learning outcomes than Group 2, ESB (See Appendix 2).

The samples for perception of classroom environment and learning outcomes for both groups were both tested for the Null Hypothesis and found that in all cases $p$ was greater than 0.05 therefore we do not reject the null hypothesis, and conclude that the language background of the students does not have a significant impact on the student’s classroom environment’s perception and their learning outcomes. In accepting the null hypothesis there is the risk of incorrect acceptance, that is the risk of accepting the samples as not being representative of their populations and therefore the possibility of forming an incorrect opinion about Group 1 NESB population exists, that is, accepting that NESB students’ perception of classroom learning environment will lead to the same learning outcomes as ESB students, when in fact this may not be true.
DISCUSSION AND CONCLUSION

The question of whether the teacher has been able to influence learning outcomes by influencing the classroom climate/ethos as in Biggs 3P Model of teaching and learning, and in particular whether it is at different levels for the ESB and NESB students was the research question examined in this study. The conclusion as to whether NESB students have the same classroom perception and are consequently able to achieve the same learning outcomes, is a difficult one. The correlation analysis between the classroom environment and the learning outcomes indicate that NESB students achieve slightly lower learning outcomes. This was dispelled statistically by using the Null Hypothesis where it was found that the perception of classroom environment and learning outcomes for the two groups were not significantly different.

From a qualitative pedagogical point of view the authors support the correlation analysis and its use to prove Hypothesis 1, and therefore support the conclusion that Group 1, NESB students are disadvantaged by the use of current affairs articles, which are culturally and politically foreign to them. Even though the difference in the correlation analysis is only small, the fact that it is the NESB students who achieved a lower correlation the ESB students means it should not be ignored and could give rise to further research in an effort to provide qualitatively better learning outcomes for all students, regardless of their first language. If, as can be seen, NESB students are not achieving as much from the program as ESB students, perhaps the learning focused activities under process in Biggs 3P model are inappropriate for these students and therefore leading them into surface approaches. While the authors have accepted the challenge of addressing enjoyment and interest as a surrogate for practical experience so as to enhance learning outcomes for students, the solution can only be acceptable if all students in the cross-cultural classrooms we now find ourselves teaching, both ESB and NESB students, share in this enhanced and improved classroom environment.

A full list of references and appendices is available from the authors and will be provided at the conference.