Testing technology: Can it bring the benefits we hope for?

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Using the case method for an undergraduate IS subject: Encouraging participation in culturally mixed classes

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Abstract
The case method is much used in information systems education. There is little consideration on how to use this method in culturally mixed classes. This matter is increasingly important in Australian universities where many IS courses are filled with students from different cultural and educational backgrounds. This paper focuses on how to encourage participation in culturally mixed classes where the case method is used. It is based on the authors’ experiences of, and reflection on, teaching an information systems undergraduate subject using the case method for Year 3 level students. The purpose of the paper is to share our experiences with others in using the case method, and thereby improve teaching and learning. We critically look at the effectiveness of the case method in culturally mixed classes. We present here how the method was modified and discuss strengths and weaknesses of the modified format.

Keywords
Learning Style, Management Information Systems, Case Method, Culturally Mixed Class

1. INTRODUCTION
The case method is much used in information systems education. It is not only used at the postgraduate level, such as in MBA courses, but also increasingly at the undergraduate level. “There is no doubt that the use of cases for Information Systems teaching is a recognized teaching tool, and continues to expand” (Hackney et al., 2003).

A dilemma many instructors face when using the case method is that many students do not get involved in the case (Hackney et al. 2003). Given that the case method is premised on student’s learning through active participation in the classroom discussion of the cases, encouraging participation from all students is crucial. This prompts Hackney et al. (2003) to ask the question: “How do you get as many students as possible involved?” While many instructors using the case method face this dilemma, there are only a few studies that address this problem. Kerr et al. (2003) suggest that the use of role-playing can partly address this problem. Huff et al. (2002) suggest allocating at least 40% of the total marks to class participation (from Kerr et al., 2003). Role-playing increases teaching staff workload, as this method requires well-planned preparation. Allocating a very high percentage of marks to participation can cause other concerns such as how to mark contribution accurately and reliably on the spot; how to maintain consistency of assessment; and how to control the perception of assessment consistency among the students. For these reasons, those options are not always applicable.

This paper focuses on how to encourage participation in classes where the case method is used. This issue is particularly important and becomes more complicated in Australian universities where many international students (mainly from East Asian countries) fill the classes. For example, around 78 per cent of the University of Melbourne’s 8,000 international students are drawn from the Asian region. Furthermore, 10 per cent of all University enrolments are local students who were born in Asia and who can experience similar language and learning issues to those experienced by international students (University of Melbourne, 2004). It is often said that Asian students are less participative than Australian students. Proponents of, and many studies of, the case
method assume that the method is an effective learning and teaching tool because it is based on interaction and helps students learn by doing and sharing through class discussion (Mukherjee, 2000). However, they do not consider how difficult it is to use this method in culturally mixed classes.

There is little research on how to encourage students’ participation particularly in culturally mixed classes like those of IS courses in Australian universities where many Asian students fill class rooms. People have different learning styles which are culturally constructed and one of the bases of cultural difference (Cushner, 1994; Kolb, 1984, 1985). Individuals can learn effectively in different ways. Some students may learn effectively when participative interaction is encouraged; others may learn more effectively when time for individual reflection is allowed. Therefore, the case method may not be an effective method of learning for all individual students and in all class situations.

This issue can become acute in the context of internationalisation of Australian universities. The traditional view of teaching Asian students is “the transition of ‘Asian’ students to a ‘Western’ educational experience” (University of Melbourne, 2004). In this view, the student considers to be the problem. On the other hand, an emerging view suggests new approaches to teaching “in order to respond to the changing demographic … and the changing world.” Eastern approaches and traditions are as important as Western ones in today’s world. In this view, the problem may be the teaching. Professor McPhee, Deputy Vice-Chancellor (Academic) of the University of Melbourne says, “Internationalisation does not simply mean having large numbers of overseas students. It also means rethinking our curricula and even some of the ways we teach so that all students – local as much as overseas – may benefit from the greater cultural diversity” (UniNews, 2004).

The case method in teaching a subject in the management stream for Year 3 students or above has been used in the Department of Information Systems, the University of Melbourne for the past four years. Although the subject has undergone some modifications (described in Section Three), the essence of the subject remains: the case method. The authors have been involved in teaching the subject as facilitator of seminar groups, lecturer-in-charge, marker (explained in Section Three) and administrator during three semesters for the last two years.

This paper draws on the authors’ experiences of teaching the subject, and reflections on how to improve the subject reception by the students. As this paper is not based on a designed research method, we are limited in making rigorous arguments. The purpose of the paper is to share our experiences with others in using the case method, and thereby improve teaching and learning. We critically look at the effectiveness of the case method in culturally mixed classes and suggest a possibility of modifying the method or proposing alternative ways.

After this introduction, four sections follow. Section two is a literature review on learning styles and how they are related to cultures, especially in the Asian and Australian students’ learning context. Section three describes the subject(s) under study in order to provide the background for readers. Section four discusses the two methods employed to encourage students’ participation: marked individual participation and structured group debate. By presenting advantages and disadvantages of each method and challenges faced by the authors as instructors, we hope this opens a venue for further discussion. Then in the final section, we summarise some lessons we have learned and make suggestions for practice.

**2. LITERATURE REVIEW: LEARNING STYLES AND CULTURES**

The following is a literature review on the concept of “learning styles”. It is by no means exhaustive given that the “learning styles” research area has its complexities and convolutions difficult to understand (Cassidy, 2004) and that we focus on studies relevant to culture. This review aims at setting out the major theories and models which would help identify the knowledge gap to support the contention that this paper has potential contribution to the body of knowledge relating to Asian students’ learning styles and using the case method in information systems teaching.

**Learning Styles and Cognitive Styles**

Bloom (1976) suggests that learning occurs when there is interaction of an individual’s previous knowledge, attitudes towards learning, self-perception and his or her immediate environment. Gregorc (1979) comes up with the notion of “mindstyles” and proposes that a learner basically processes, filters, orders and evaluates information compatible with their perception of reality. He further states that learning ability is mediated by psychological, sociocultural and socialization factors which impact on the learning style.

The terms “learning styles” and “cognitive styles” are often used interchangeably (Irvine and York, 1995). Allport (1937) depicts “cognitive style” as an individual’s typical or usual mode of problem solving, thinking, perceiving and memorising. Riding and Cheema (1991) take the term “learning style” to reflect a concern with the application of cognitive style in a learning situation. It can also be argued that cognitive style can be regarded as a significant component of learning style (Cassidy, 2004). Hartley (1998) regards cognitive styles as the ways through which individuals approach various cognitive tasks, and learning styles are the ways through which individuals approach different learning tasks.
Learning styles are based on the combination of how one perceives and processes information (Kolb, 1984). Research on learning styles has been active for around four decades and is also being done in fields other than psychology – the discipline from which many of the main concepts and theories are originated (Cassidy, 2004). These fields include medical and health care, management, vocational training and a vast range of settings and levels in the domain of education (Cassidy, 2004). Various attempts has been made for a comprehensive literature review concerning the area of learning styles (De Bello, 1990; Riding and Cheema, 1991; Rayner and Riding, 1997; Cassidy and Eachus, 2000; Coffield et al, 2004), though none is found in information systems research.

Learning Styles and Cultures

There have been attempts to explore learning styles in the context of ethnic or national cultures. Culture is a way of life that is shared by members of a population or a group (Ogbu, 1988) and is what one thinks is important and true and how one perceives things are done – or in other words, values, beliefs and norms (Owens, 1987; Irvine and York 1995). Bennett (1990) highlights five cultural variables that appear to influence learning: (a) childhood socialisation; (b) socio-cultural tightness; (c) ecological adaptation; (d) biological effects; and (e) language. Kolb (1984) and Cushner (1994) contend that learning style is one of the bases of cultural difference and is developed because of our previous life experiences (University of Melbourne, 2004). When comparing the learning styles of African American, Hispanic and Indian students, Irvine and York (1995) conclude that Indian students prefer learning privately rather than in public and learn best from nonverbal mechanisms rather than verbal. The research on learning styles of culturally diverse students is based primarily on the literature relating to cultural anthropology. Even though it is clear that culture is an important factor affecting the learners’ predispositions towards learning, Irvine and York (1995) emphasise that culture is a learned practice that can be unlearned and modified and is neither static nor deterministic. In addition, the impact of culture on learning styles may be mediated by other factors such as gender and social class.

There has been research done on comparing the learning styles between Western and Asian students. When comparing the learning styles of American and Chinese graduate students, Wang (1992) suggests that American students have a more social and interactive learning style whereas their Chinese counterparts prefer working with highly organised materials and engaging in self-paced programmes. Biggs (1990), Gatfield and Gatfield (1994), Niles (1995) and Bhawuk and Triandis (1996) are of the view that the Confucian emphasis on inter-relatedness and groups accounts for the Asians’ preference for learning in groups. Gatfield and Gatfield (1994) mention that this could be due to the fact that while Australian and other similar Western countries adopt the “individualistic model” in their social system, the Confucian cultures of Asia take a more “corporate identity” or “collectivism” (Hofstede, 1980). Ramburuth and McCormick (2001) have not found statistically significant differences between Asian international and Australian students in their overall learning approaches, but Asians obviously prefer group learning. They hope that their paper serves to highlight the need for educational institutions and their teaching staff to be more aware of the students’ learning style preferences in order to maximise the effectiveness of the students’ learning. University of Melbourne (2004) examines the challenges posed to the University’s teaching and learning practices in light of the substantial proportion of Asian students on the campus.

Knowledge Gap

Earlier this year, there have been research projects in the education field on learning styles in different parts of the world. For instance, the August 2004 issue of the Educational Psychology journal is on learning styles. The Learning and Skills Development Agency in London engaged a research team led by a University of London Institute of Education’s professor to research on learning styles which resulted in the report Should We Be Using Learning Styles? What Research Has to Say to Practice (Coffield et al, 2004) reviewing the major theories on learning styles and critically examining the practical usage of the same. In addition, the University of Melbourne completed a phase in their yearlong project Students from Asia: Issues in Learning and Teaching looking at learning styles in the context of Asian students (University of Melbourne, 2004).

Kate Anderson, director of research at London’s Learning and Skills Development Agency, commented on the report Should We Be Using Learning Styles? What Research Has to Say to Practice (Coffield et al, 2004): “We need a much better understanding of how individuals learn … This research suggests that students will become more motivated to learn by knowing more about their own strengths and weaknesses as learners. Also, if teachers can respond flexibly to students’ learning styles, then the quality of teaching and learning is likely to rise.” (Education Publishing Company Ltd, 2004). In view of the University of Melbourne’s plan to increase its international student population by 2007 from the current 21 per cent to 28 per cent of enrolments as part of its vision of attaining “internationalization”, there are voices within the University to head towards the direction of understanding the international students’ (majority of whom are from Asian countries) backgrounds, assumptions and expectations (Ziguras, 1993) and modifying the traditional Western pedagogy in order to achieve the goal of globalizing the University (University of Melbourne, 2004).
Gatfield and Gatfield (1994) and Ramburuth and McCormick (2001) are two of the studies exploring the Asian students' learning style preferences and their differences from Australian students'. Recent literature search has shown that there has been little or no research on examining this issue of Asian/Australian (or Asian/Western) learning style differences in the context of case method teaching - a teaching method whose popularity is originated from its widespread use in Western/North American professional schools such as Harvard Business and Law Schools as well as the University of Western Ontario Business School. An interesting question for both researchers and educators would be: Is a teaching method rooted in Western cultures like the case method an effective means of teaching and learning for students from non-Western cultures such as those Asian international students in Australian universities? Given the views as expressed in the Learning and Skills Development Agency and University of Melbourne reports (Coffield et al, 2004 and University of Melbourne, 2004) that it is important to understand the students’ learning style preferences to improve the quality of teaching and attain the goal of “internationalisation”, research on the use of the case method in culturally mixed classes in Australian universities with the majority of non-Western/Asian students would have the potential of contributing to the body of knowledge in the relevant respects and to higher education practice. The following section deals with the authors’ experiences of teaching information systems at the University of Melbourne in culturally mixed classes consisting of many Asian students. It is followed by a section on how they modified the case method teaching format having taken into account of the Asian students’ cultural background and learning style preferences.

3. DESCRIPTION OF THE SUBJECTS AND PARTICIPATION METHODS

The subject under study (initially 615-350 Case Studies in Information Systems) was offered first in semester two 2001. The first author joined the teaching team as one of facilitators in the second semester 2002. In the 2nd semester 2003, he became lecturer-in-charge. The subject was offered to Year 3 or above students as an integrative subject by which we mean students were required to apply concepts, knowledge and theories they had learned from all the prior subjects in their past two or more years in the IS and management courses. The cohort mainly consisted of two groups of students: BIS (Bachelor in IS) and BComIS (Bachelor in Commerce and IS, a five-year double degree course).

The cases used in the subject are from Applegate et al. (5th edition in 2002; 6th edition in 2003 and 2004). These cases are typically 20-30 pages long and require high-level reasoning. This is compared to in-class mini cases used by Mukherjee (2000). For an introductory subject in MIS, Mukherjee used one-page short case. As this subject is an integrative one for Year 3 or above students, we used substantive cases in Applegate et al. (1999, 2003). The cases were substantive and complex enough to expose students to the complexity of a real situation. Until 2002, the subject was delivered only through the case method, and about 20 cases were dealt with in 24 sessions of one semester. The rest of the sessions were used for explaining and discussing on theory chapters in the textbook.

In the second semester 2003, it was decided that lectures be introduced to deliver the theory part of the subject. The following two reasons drove this decision. First, about 20 cases per semester were too demanding. Students had to read two cases per week, which were typically 20-30 pages long. They had to submit a one-page summary answer to the pre-set questions per case. This workload was perceived too much for undergraduate students. Second, in contrast to the assumption that the students in the subject were somewhat knowledgeable on basic concepts and theories required to understand and analyse the cases as they were all Year 3 or above students who had been taught some IS and management subjects in their previous years, the knowledge level varied among the students so that discussion was often ineffective. Therefore we decided to introduce a series of lectures with contents which would help students understand the case in the following session (during the same week or the following week). The lecture part was introduced on the rationale that effective learning often requires a balanced combination of active and receptive learning processes. In the first semester 2004, the lecture series which were designed to supplement the cases continued.

At the end of 2003, there was a big change in the curriculum of the management stream in the department. To give more selective subjects, the subject (615-350) as a core was removed and two selective subjects were to be offered in semester 1 and 2 respectively. One of the new subsequent subjects was named as ‘615-351 Strategic Information Systems Management’ and retained most of the contents and the delivery methods from 615-350. The main change was from a core subject to an elective. The new subject was offered in the first semester 2004 and under the charge of the first author.

Table 1 compares the two subjects offered in three semesters. Although there are some differences, the case method was the central part of the two subjects. As the first author has been lecturer-in-charge for both subjects in the past two semesters, the second author involved in the last two semesters, and the third author in the last semester, the paper focuses on these two semesters, though we visit the previous semester (the first column in Table 1) when necessary. Furthermore, in terms of the focal point of the paper, that is, how to encourage students’ participation, the subject offered in 2002 and the one in 2003 were identical (See 10% individual class
participation in bold in the table). A new method for assessing participation was introduced in 2004. This paper compares the effectiveness of the two methods for encouraging class participation. As the participation mark took only a small portion (10%) of the total assessment, more deliberate thought was required in order to make the class active during case discussion.

<table>
<thead>
<tr>
<th>Subject title &amp; code</th>
<th>2nd 2002</th>
<th>2nd 2003</th>
<th>1st 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort</td>
<td>About 350</td>
<td>About 350</td>
<td>115</td>
</tr>
<tr>
<td>No. of seminar classes</td>
<td>6, about 60 students each class</td>
<td>7, about 50 students each class</td>
<td>3, about 40 each class (for a timetabling reason, one class had a much smaller number of 17)</td>
</tr>
<tr>
<td>1st Author involvement</td>
<td>Facilitator for two classes</td>
<td>Lecturer-in-charge; Facilitator for one class</td>
<td>Lecturer-in-charge; Facilitator for one class</td>
</tr>
<tr>
<td>2nd author involvement</td>
<td>Not involved</td>
<td>Senior tutor (responsible for some administration); marker for two classes</td>
<td>Senior tutor (responsible for some administration)</td>
</tr>
<tr>
<td>3rd author involvement</td>
<td>Not involved</td>
<td>Not involved</td>
<td>Facilitator for two classes</td>
</tr>
<tr>
<td>No of cases vs. Lecture</td>
<td>20 cases : no lecture</td>
<td>12 cases : 12 lectures</td>
<td>12 cases : 12 lectures</td>
</tr>
<tr>
<td>Teaching team</td>
<td>5 facilitators; 2 markers</td>
<td>5 facilitators; 3 markers</td>
<td>2 facilitators; 1 tutor</td>
</tr>
<tr>
<td>Assessment</td>
<td>One-page summary for 18 cases: 36% Group written assignment for two cases: 14% Individual class participation: 10% Exam: 40%</td>
<td>One-page summary for 9 cases: 27% Group written assignment for two cases: 23% Individual class participation: 10% Exam: 40%</td>
<td>One-page summary for 10 cases: 20% Group written assignment for two cases: 20% Group presentation: 10% (5% as presentation group; 5% as discussant group) Exam: 50%</td>
</tr>
</tbody>
</table>

Table 1: Description of the subjects

Here we describe the measures we used for encouraging students’ participation. In 615-350, what we call here ‘marked individual participation’ was used. In this model, students were awarded marks based on their contribution to in-class discussion of the cases. Two teaching instructors were present in the class room during each seminar. One instructor took the role of facilitator and ran the classroom discussion. The second instructor, called marker, took the role of marking student contributions during the discussion of the case. They had a seating plan for the class with student names and thumbnail photographs. The marker’s role was typically fulfilled by mature PhD students with the necessary breadth and depth of academic knowledge needed to understand and analyse the cases.

This method for encouraging class participation was successful to some extent. However, this was also a continuous source of concerns from students. First of all, the class size (about 50) was perceived too big for this method to run effectively. Secondly, each comment by a student was assessed instantly by the marker. When a student made a comment, the marker noted how often he or she spoke in class and assessed whether the comment contributed to the class discussion. When giving a final mark to a student after the class, the marker considered not just the number of times that the student spoke but also the quality of the student’s comments. Expressing analytical or critical insights would generally render the student an opportunity of getting a higher mark than merely referring to the facts in the case. Although we trained the markers by providing some criteria\footnote{For example, does the contribution:}
and tried to keep experienced persons who had worked for the subject in previous years, students tended to think that the more they speak, the higher marks they get regardless the quality of the comment.

In the new subject 615-351, a different model for encouraging class participation from students was employed. For each case, one question was formulated in a way that opinion regarding on it could easily be divided between an affirmative or negative response. For example: ‘do or don’t’, ‘agree or disagree’, ‘support or criticise’. For example: “If you were CIO of Ford Motor Company, would you recommend emulating Dell’s business mode?” In this model, students were asked to self-select into small groups of four students. For each class one group was assigned the role of Presentation Group (PG) and one group was assigned to be the Discussant Group (DG). The PG was typically assigned the role of answering the case study’s discussion question in the affirmative while the DG took the contrary position. Each seminar began with short student presentations. The PG group began with a presentation (not longer than 15 minutes) where they summarised the case and argued their position. PG groups typically supported their presentation with PowerPoint slides. Following the PG’s presentation, the DG was given the floor and often gave a shorter, prepared presentation that put forward the contrary position. The DG was also asked to rebut the arguments put forward by the PG at this time. Often a wide ranging debate emerged from these initial presentations and, ideally, the facilitator was able to draw the rest of the class into a broad discussion of the issues present in the case. Both the PG and DG were expected to assume a prominent role in the ensuing large group discussion of the case that lasted approximately 40 minutes of one and half an hour session. Two weeks after each group played these roles, they were required to submit a group essay addressing the position they had argued for in the class. It was advised that this essay should reflect what was discussed in the class.

We observe this method for encouraging class participation had a number of advantages over the previously, and more commonly, used method. The structure of a prepared presentation and ensuing debate offered students the opportunity to develop a number of useful skills, including: structuring an argument; locating and organizing supporting evidence to support an argument; oral and visual presentation skills; as well debating and discussion skills such as how to criticise others’ view and respond. To defend their designated position, PG and DG students delved into the case and did research in and around the organizations concerned. As a result, students often brought a wealth of additional information into the class which they were able to share with other students. More importantly, they organised information from the case description and materials of their collection in a structured way so that they strengthened their argument. The method formalized the expectation that students would contribute and lead at least part of the class. We found that many students, having spoken while playing a PG or DG role, were less reluctant to speak up subsequently. Thus, this method served to “break-the-ice” in terms of class participation and helped overcome some reticence that some students felt about speaking in-front of their peers. The last point is expanded in the following section to discuss in the context of culturally mixed classes.

4. DISCUSSIONS OF PARTICIPATION METHODS

Previously students’ comments were assessed by a marker, who was present in the classroom with the facilitator. There was some concern of how effective this method was in marking students’ contribution to class discussion. Many students of Asian background complained or expressed concerns about having part of the final grade based on the class participation because they did not feel comfortable of speaking out in a class with 50 or more other students and tended to get low class participation marks. Some felt even intimidated by the pressure of individual participation. There was a tendency observed that some talkative Australian students dominated the class. Although those (mainly Asian) students who felt disadvantaged have to overcome themselves such difficulties and change their attitudes, such concern is worth considering because they were educated and brought up in different cultures and different learning environments which could foster different learning styles.

The abovementioned report by the University of Melbourne (2004), Students from Asia: Issues of Learning and Teaching, raises a need to recognise “the diversity of these students and of their educational and cultural experience.” The learning experiences of students from Asian countries are different from those of home students. Even among Asian students, Chinese students’ experiences are different from Hong Kong students’, and again from Indian students’. Although many students from Asia are looking for a ‘Western’ education, “this can still be achieved in a teaching and learning environment in which there is a familiarity with the educational practices that students would be accustomed to in their country of origin” (UniNews, 2004).

According to Kolb (1984, 1985), there are four types of learners who can learn better with a particular learning style. Divergers learn from concrete experience or feeling; assimilators from reflective observation or watching

- Represent a solid analysis and some insight into the case or is it just a reiteration of case facts?
- Demonstrate an ability to listen to, and build on, what others have said?
- Move the discussion to an important area or just rephrase what has already been said?
and listening; convergers from abstract conceptualization or thinking; accommodators from active experimentation or doing. The learning style as embedded in Asian educational and cultural backgrounds is vastly different from that as practiced in the case method. In such Asian cultures as China, Taiwan, Korea, Hong Kong, Indonesia and Malaysia, it is quite common to find in a high school classroom a bunch of students spending most of their class time listening to their teachers lecturing on a related academic topic. This is because silence implies learning by listening in Asia (Sergey, 2001) and is considered a sign of respect for the speaker indicating that the listener has to think deeply about what was said (Greenwood, 1997). An individual student voluntarily speaking and putting forward an opinion in class is not common and can be seen by his or her peers as trying to show off or outshine other students (Sergey, 2001) – a gesture that is not respected in Asia where the culture cherishes indirect communication, confrontation avoidance and social harmony (Morris et al., 1998) and stresses interpersonal relations rather than individualism (Ho, 1982). In addition, expressing an opinion contrary to the teacher’s may be regarded as disrespectful in Asian countries where power distance is relatively high (Hofstede, 1997; Fernandez, 1997). This is because Asian cultural tradition encourages respecting those in authority (such as a teacher in the educational environment) (Koh, 2000) and respect to seniors such as parents or teachers is very much taken to mean obedience in Asia (Larson and Kliner, 1992; Minichiello, 2001). Moreover, Asian educational systems very much put the emphasis on memorising information and passing examinations rather than expressing creative ideas or individual thoughts (Ho, 2000). Under such cultural circumstances, the typical Asian learning style is that of an “assimilator”, that is, learning by listening and observing. This is very different from the learning style as practiced in case discussion classes, which is more of an “accommodator” that learns by doing and participating as well as openly expressing one’s opinion verbally. Students with an Asian cultural and educational upbringing might not find it easy to adjust to such a learning style.

The structured format of discussion, where a participation group and a discussant group debate regarding a question of which opinion can be categorically divided, could mitigate such negative perceptions among those from different cultural and learning backgrounds. This also corresponds to Asian students’ preference for learning in groups (Biggs, 1990; Gattfield and Gattfield, 1994; Niles, 1995; Bhawuk and Triandis, 1996). Asian students thrive in small-group learning situations (University of Melbourne, 2004).

Students’ response to this new format of structured group debate was generally positive. Our experience in the classroom, informal feedback from students as well as the results of the formal, university administered quality of teaching questionnaire, all indicated that students were receptive and satisfied with the new format.

From our experience in the classroom we observed students responding positively to the challenges presented to them through the discussion format. We saw them put enormous energy and effort into preparing for their PG and DG roles. In order to defend their position, many students utilized a variety of resources such as the Internet and published literature to discover more about the companies featured in the cases and brought this information into the classroom. Our informal discussions with students, during which we were encouraged by both constructive and critical feedback, also indicated that students found the class structure to be a positive learning experience.

Results from formally administered quality of teaching surveys, which included questions specifically targeted to evaluating the effectiveness and receptiveness of the new components in the subject, enabled us to compare student perceptions of the previous marked individual participation and the new structured group debate. In general, as compared to previous years, students reported having a clearer understanding of our expectations of them in the subject, they reported finding the subject more intellectually stimulating, and were more satisfied with the quality of learning that occurred in the subject. In particular, there was a marked improvement in student’s perceptions of the case method per se as an effective learning tool in the subject. They felt that the PG and DG discussions were effective learning mechanisms when they were a participant in either group as well as when they were part of the audience. Perhaps the most significant change in student’s perception of their learning occurred in regard to their written work. In this new format, the group written assignment was transformed; each group was required to write for or against a decision, instead of answering the same questions for all the groups. A strong improvement was noted in student’s perception of the contribution written assignment work made to their learning. Overall, students saw value from preparing for their presentation group and discussant group roles to support either of the two categorically divided positions.

5. CONCLUDING REMARKS

Due to the limitations of the paper (based on reflections, observations, personal communications, some limited data from teaching evaluations), we cannot make rigorous arguments like “The new structured method is significantly effective”. However, the new method is positively received by the students. At least there was no concern expressed from those students who come from different learning and cultural backgrounds.
Even though the new method appears to have been well received by the students, there are still a number of areas for improvement. Firstly, one observation is that there seems to be a split among the students’ opinion on this format. We have found from informal feedback that while those who are active and academically strong like the group discussion format, those who are weak are more critical. For example, one student who was active and performed well commented that “this sort of ‘big picture’ thinking works well with me” and the subject is “very mentally-stimulating”. The response from the latter group is understandable since the cases we use in our undergraduate class discussion include those that are being used in MBA classes at leading international business schools such as Harvard Business School where students have years of work experience in the business. Given that discussion of these cases often requires high-level reasoning, it would be quite natural for the academically weak undergraduate students to find the intellectual demands overwhelming especially when they have little or no work experience at the young age of 20 or 21. It seems that our next challenge would be pondering on how to enhance these students’ interest in the teaching format and subject content.

A solution for this challenge might be to find shorter and intellectually less demanding cases. However, we believe this might be an easy solution, but it is not a good one. The problem is a typical one when we teach complexities of the real world. We should be able to make students aware of complexity and ambiguity. One of the learning outcomes in the university teaching is to develop a capacity for tolerating ambiguity and complexity (University of Melbourne, 2003). This is often forgotten when we focus on satisfying students’ demand of, for example, wanting clear answers. Helping students understand the inevitability of complexity and ambiguity, this will be another challenge for us in running the subject.

The second challenge would be how to encourage more cross-cultural co-operation in the class. Part of the course requirements was to form groups of four and submit group written assignments. From our observation, the students tended to form groups with students from their own cultural background. Universities are considered a training ground for future leaders and professionals. The current economy is characterised by globalisation which partly means that it is becoming more common these days for people from different cultural backgrounds to work together. If students in a culturally mixed class chose to work with those from their own cultural background, they might have lost the valuable opportunity of working with and learning from those coming from different cultures. Therefore it would be practical to consider encouraging students to form groups and work with those from different cultures as part of the educational process preparing them for their careers in this global village.

The above two issues may just be some of the challenges that information systems undergraduate teachers would encounter when using the presentation and discussion groups format in the case method. There may be other issues that are yet to be explored and studied. We hope that what we have stated in this paper would serve as the beginning of reflection on improving the use of the case method in teaching information systems undergraduate classes where there is a variety of cultural background, learning style preferences and academic abilities.

REFERENCES


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