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The Teacher – Technology Balance in Business Case Teaching: A Student Perspective

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ABSTRACT

This research investigated students' preferences for completing business case studies online compared to face-to-face. The research model was based on the 'cognitive' dimensions of Henri (1992) and the 'reflective thinking' types of Mezirow (1991) against which the activities in case learning were charted. Data was collected through a questionnaire involving postgraduate business students. The findings indicated that, to gain understanding of the case, students prefer material in multimedia form but overall the physical approach was preferred, particular the use of class discussions. When analysing and solving the case problem, the physical and online approaches were more balanced. When developing recommendations, students valued the importance of face-to-face feedback as well as online comparison with the work of others. Responses indicated that students would be willing to provide elementary clarification of the case material to other students online but less willing to provide reasons for critiquing the work of others. The study provided an indication that the blended approach to case teaching in business studies may be the preferred option for students. This would enlarge their learning space as well as develop an e-learning community. As a result student learning is sustained.

INTRODUCTION

Case studies have been used over many years in tertiary teaching. The key reason is that they provide the opportunity "to reduce the divide between simulation (teaching) and reality (practice)" (Hackney et al, 2003, p. 229). In other words, it is an effective teaching and learning strategy to bring the real world into the classroom. The internationally renowned Harvard University has over many years encouraged this type of education in their class rooms. With the rapid advance of Information Technology (IT), and in particular the World Wide Web (web) on the Internet, the opportunity exists to offer and conduct this type of education beyond the physical classroom. While the attraction of using technology in education appears obvious at first glance (for example, it offers convenience to students when and where to participate in solving the case), it also seems that benefits of the interplay between students and teaching staff will be reduced.

The objective of this research was to gain insights into the preferences students have for completing case studies either by physical interactions with their lecturer and fellow students and/or online. Insights gained will enable the teacher to be more effective in blending his/her role with appropriate technology in achieving an effective case learning outcome.

CASE STUDY TEACHING

Lundberg et al (2001) traced case study teaching back to the 1930s and identified the key objectives during that time as carrying out analysis on information provided, conducting open discussion, and recommending appropriate action. They surmised "that the original intent of teaching cases was to enhance discussion – for appreciation, for understanding, for analysis, and for action – in the service of thinking" (p. 457). During the 1950s it became increasingly clear to them that the nature of

information provided for analysis and subsequent discussions had to reflect real life situations to bring the worlds of teaching and practice together.

There are a number of critical elements that should be covered in case study teaching. First, as identified above, it should bring the real world into the classroom, 'warts and all'. The real world is messy, poses dilemmas and may offer a number of possible solutions to problems. This requires careful analysis in which the student is required to understand the specific context of the case, gain a sense of boundaries relating to the problem situation and be sensitive to interrelationships that occur in the case. Barnes et al (1994) (referenced in Lundberg et al, 2001) identified these as three of six critical elements of a teaching case, the other three being examining the case from a multidimensional point of view and integrating dimensions with the view of offering a solution to the problem, taking personal responsibility for the solution (for example, the student may have to wrestle with social values and ethical issues), and being action orientated, i.e. to be of practical value.

The overriding teaching philosophy is one of learning by doing. By participating in analysis and discussion, the proverb of 'involve me and I will learn' is being followed. Problem based learning (PBL) emphasises the understanding of concepts and critical thinking; it bridges the theory-practice gap by encouraging learning in context. As pointed out by Ahlfeldt et al (2005), the approach had its origins in medicine but is now practised in many disciplines, including business. "PBL involves confronting students with a problem related to the class material opposed to traditional dialectic approaches to education" (p. 9). This provides a 'loosely-structured' situation in which students are able to explore and learn. A shift occurs from teacher to student. Ahlfeldt et al (2005) found that PBL works best in higher-level classes and classes with fewer students as was the case with this research (see later section).

The role of the teacher, however, should not be underestimated since knowledge transfer tales place when students and teacher interchange ideas. According to Stange (2005), the role of the instructor in an advice-giving context involves both the intellectual (e.g. high-level knowledge, exceptional understanding, exceptional judgement) and interpersonal domains (e.g. sensitivity, compassion, empathy), and should reflect experience. In effect the advisor is being relied upon to provide insights that differ from those of the students, thereby supporting the multi dimensional nature of case studies.

TEACHING CASE STUDIES ONLINE

Murray (2007) provides some insight into the reasons why the Boston-based Babson College is advocating teaching cases on the web. The major advantage is seen as increased student participation. The classroom experience of many academics has been the reluctance of students to be active discussants for reasons such as lack of language proficiency and/or confidence and cultural. Some students can be quite vocal and dominate discussions. Electronic forums provide the opportunity to think about the contribution the student wants to make and to do so with confidence. In this way discussions are increased since more students are prepared to contribute.

Online discussions furthermore are not restricted to the duration of the class but continue because students stay electronically connected. The use of online chat rooms, discussion boards and email has enabled students to allocate tasks among themselves if they wish, see and comment on the work of others, and exchange ideas at a time of their convenience. The web has also enabled the case material to be presented in a rich format. Murray (2007) draws attention to the Warwick Business School where electronic case studies are presented in multimedia format, including audio, video and links to websites.

There are however two major issues with the use of online case study teaching. First, the approach to solving the case may not reflect real life business. Murray (2007) quotes Mark Rice, Dean of Babson College, as saying "what you are losing is the rapid fire response that managers are often confronted with in real life. Because in the real world, you don't have 48 hours to respond – you have to be able

to think quickly on your feet, aggregate a lot of information quickly, make a decision and take a position." From a student learning perspective this may, however, not be desirable as it may result in surface rather than deep learning. Under surface learning, students get work done as fast as possible, using low cognition activities, while with deep learning, students engage with a task meaningfully and, what McCombs (2000) refers to as real life learning. "Real life learning is often characterised as playful, recursive and non-linear, engaging, self-directed, and meaningful from the learner's perspective" (p. 1).

The second concerns the discipline itself and the role of the instructor. Business, being part of social sciences, is a low consensus discipline (Feldman, 1987) based on application of softer and more transient knowledge (Lindsay, 2002). It is therefore not possible to provide 'correct' solutions to the case analysis; different approaches will lead to different outcomes. This may not suit the student seeking a model answer and hence the role of the instructor in involving him/herself online to put the case into context becomes even more important.

RESEARCH METHODOLOGY

The study objective, as stated earlier, was to explore students' attitudes towards learning from case studies in a face-to-face and/or an online mode.

Research Model

The research was based on the 'cognitive' dimensions of Henri (1992) and the 'reflective thinking' types of Mezirow (1991). The former includes elementary clarification, in-depth clarification, inference, judgement, and strategies while the latter is about content reflection, process reflection and premise reflection. The dimensions provided two criteria against which the learning activities (e.g. analysing, solving) in case learning were charted as shown in Table 1. It shows how the first step in studying a case involves understanding of content which requires both elementary and in-depth clarification. This is followed by the processes of analysis and solving the problem requiring inference and judgement. Finally, premise reflection is required to recommend strategies for implementing actions for the case under review.

Table 1: Dimensions of Case Learning

Cognition /Reflection	Content	Process	Premise
Elementary clarification	Understanding ↓		
In-depth clarification	Understanding ↓		
Inference	→	Analysing ↓	
Judgement		Solving ↓	
Strategy		→	Recommending

Research Material

Participants in the research were students in a small (11 students) postgraduate unit in the Faculty of Business at an Australian university. They had completed a case study during the semester entirely in a 'physical' manner. In other words, the case study assignment was classroom based in that the material was provided in text form, discussions took place in class, consultations with the lecturer were face-to-face as were discussions between students since no online forums were offered. As far as the researcher could establish participants had not experienced online case learning during their studies to date.

The research required students to complete a questionnaire in which students expressed their opinions on a rating scale and had the opportunity to provide written comments against each variable. There were three sections:

1. Part 1: the degree of preference (or lack of it) of changing from classroom to an online learning mode (12 questions),
2. Part 2: the importance of features within the physical and online approaches (13 questions), and
3. Part 3: the degree of willingness to participate in online activities (5 questions).

A copy of the questionnaire is provided in the appendix.

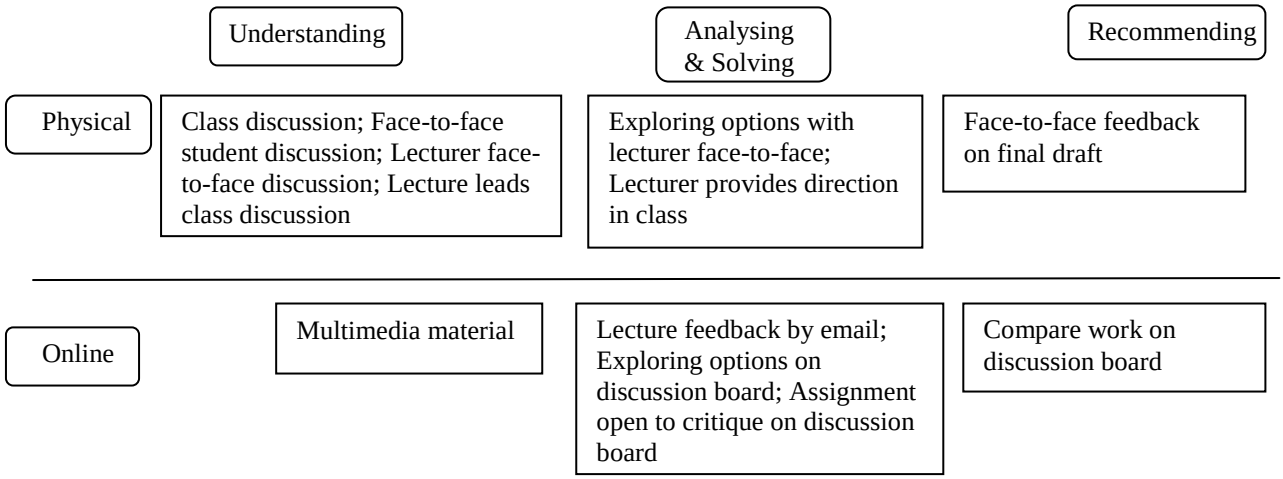
Data analysis

Numerical data was analysed using descriptive statistics, i.e. mean ratings for each of the 30 research questions. More sophisticated analysis was not possible because of the small sample size (see discussion of research limitations in a later section). The written comments were scrutinised by the researcher for the purpose of seeking reasons behind the ratings.

FINDINGS AND DISCUSSION

Research variables with the highest ratings were identified and are presented in Figure 1. The diagram has two parts - the physical approach to case study learning above the horizontal line and the online approach below the line. There are three sections indicating the case learning activities as set out in Table 1 with rectangles indicating preference between physical and online approaches.

Figure 1: Student Preferences



The findings indicated that to gain understanding of the case, students prefer material in multimedia form which includes online approaches such as accessing websites and video clips. Overall, however, the physical approach was preferred, particular the use of class discussions in which the lecturer provides the lead, and face-to-face interactions between students and the lecturer take place. Qualitative comments confirmed the importance of physical contact with peers and the lecturer. Generally students felt that the physical approach provided "better understanding", was "much more valuable" than online discussions, facilitated "direct involvement" and furthermore online discussions "take too much time". The findings confirm those of Ellis et al (2004) "Learning through discussion or conversations is a fundamental part of teaching and learning" (p. 73). In essence, discussions help to

provide foreground to learning leading to a deeper engagement by the student with content thereby affecting conceptual change (Ellis et al, 2004).

When analysing and solving the problem, the physical and online approaches were more balanced. Students preferred having the opportunity to explore options with the lecturer face-to-face and learning from him/her when he/she was giving direction in class to ensure that assignments were on track. However, the convenience of online was attractive through the use of email to obtain feedback, and using the discussion board to explore options in solving the case. In addition, students were open to having their evolving assignments critiqued online by other students, thereby gaining the benefit of greater student participation.

When developing recommendations, students valued the importance of face-to-face feedback as well as online comparison with the work of others. This indicated that ensuring the quality of the submission was regarded as important. The important effect that assessment has on student learning has long been recognised. Biggs (2004, p. 140) quotes Ramsden (1992, p. 187) "From our students' point of view, assessment always defines the actual curriculum." Biggs (2004) terms this as "backwash", "when the assessment determines what and how students learn more than the curriculum does. In a poorly aligned system, where the test does not reflect the objectives, this will result in inappropriate surface learning" (p. 140). According to Biggs (2004) backwash should be positive or as Winn (2002) suggest, for students who focus on assessment, the assessment is designed so that students learn from that. In case learning, achieving quality outcomes enhances the skills required as outlined earlier such as adopting a multi dimensional perspective, bringing values into play, etc.

The third section of the questionnaire requested students to indicate their willingness to participate online. Responses indicated that students would be prepared to provide elementary clarification of the case material to other students online but to a lesser degree for indepth clarification. While assessing other students' work was rated in the mid scale, the lowest rating was for providing reasons for such assessments. This appears to be in contrast to the desirability of having the evolving assessment critiqued online, thereby gaining the benefits of improving the quality of submission, as outlined in the earlier section.

CONCLUSION

This research provided an indication that the blended approach to case teaching in business studies may be the preferred option for students. In other words, the notion that one approach is better than the other is too simplistic. Students indicated that their learning space can be enlarged through the introduction of online technology and indicated some preparedness to become an e-learning community. It was clear that a start could be made by using technology to enrich the case material and interaction but keeping the physical interaction to maximise the understanding of the case itself.

It should be acknowledged that the research was exploratory in nature to get a first indication of students' attitudes to business case learning in two different modes. The small sample size was caused by the nature of the class itself, i.e. a postgraduate business unit. Such units are typically small in size. Because of this, findings and conclusions cannot be generalised. The results, however, have provided the researcher with the incentive to improve his approach to case teaching in the following semester. Furthermore, the research model itself, using the dimensions of cognition and reflection, can provide the basis for future research, for example by repeating the study in units that also use case teaching.

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APPENDIX: Students' Attitudes to Completing Case Studies Online

Part 1

This part asks you to evaluate the change from completing case studies in class (physical) to completing case studies online (virtual).

Please rate your opinion as to **your preference** for changing to an online mode on the scale provided (1 to 5 – **circle** one number) and make **one** brief comment (key words or phrase) against each item.

From (physical) →	**To (virtual)**	**Your Preference**	Your comment (make at least **one** comment against each row)
		Not preferable 1 2 3 4 5 Very preferable	
The case material			
In document form	In multimedia form (e.g. text supported by video clip)	1 2 3 4 5	
Understanding the case material			
Discussion in class	Asynchronous discussion on discussion board	1 2 3 4 5	
Discussion between students face-to-face	Synchronous online chat with other students	1 2 3 4 5	
Discussion with lecturer face-to-face	Discussion with lecturer by email	1 2 3 4 5	
Lecture leads class discussion	Lecturer periodically moderates online discussions	1 2 3 4 5	
Solving the case study			
Feedback from lecturer face-to-face	Feedback from lecturer by email	1 2 3 4 5	
Exploring options with lecturer face-to-face	Exploring options with lecturer by email	1 2 3 4 5	
Exploring options in class	Exploring options on discussion board	1 2 3 4 5	
Lecturer provides direction in class	Lecturer moderates discussions on discussion board	1 2 3 4 5	
Evolving assignment is kept confidential from other students	Evolving assignment is open for critique by other students via discussion board	1 2 3 4 5	
Ensuring quality of solution			
Face-to-face feedback on final draft by lecturer	Email feedback on final draft by lecturer	1 2 3 4 5	

Not able to compare my work with those of others	Able to compare my work with those of others via discussion board	1 2 3 4 5	

Part 2
This part asks you to rate the importance to you of the physical and virtual approaches to completing case studies. **Circle** one number and make **one** brief comment (key words or phrase) against each item.

	Not important				Very important	Your comment
Physical approach to case study assignment						
Lecturer provides direction in class	1	2	3	4	5	
Lecturer provides feedback face-to-face	1	2	3	4	5	
I know immediately if assignment is on track	1	2	3	4	5	
Able to verify quality of final draft directly with lecturer	1	2	3	4	5	
Assignment details kept confidential from other students	1	2	3	4	5	
Additional resources are recommended by lecturer	1	2	3	4	5	
Online approach to case study assignment						
More students participate in solving the case	1	2	3	4	5	
Online participation is at convenient times	1	2	3	4	5	
Multimedia material provides richness of information	1	2	3	4	5	
Online discussion among students generates ideas	1	2	3	4	5	
Able to compare my work with those of others	1	2	3	4	5	
Feedback is received from multiple perspectives	1	2	3	4	5	
Additional resources recommend by other students	1	2	3	4	5	

Part 3
This part asks you to indicate your willingness to be part of completing case studies online.
Circle one number and make **one** brief comment (key words or phrase) against each item.

	Not willing				Very willing	Your comment
Spending time participating online	1	2	3	4	5	
Providing elementary clarification of case material to other students online	1	2	3	4	5	
Providing in-depth clarification to other students online	1	2	3	4	5	
Assessing the work of other students online	1	2	3	4	5	
Providing reasons for assessment of work of other students online	1	2	3	4	5	

End of questionnaire – Thank you for participating