Students' Perceptions of Compulsory Asynchronous Online Discussion

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Abstract

Online discussion boards are increasingly being used by tertiary educators as tools for encouraging student interaction and for developing learning networks. In particular, educators who have adopted a socio-constructivist approach to teaching are keen to facilitate collaborative learning in which students share their experiences and perspectives, and construct knowledge together through shared meanings. In this paper, the findings from an electronic survey of 72 distance education students' perceptions of an online discussion assessment item (ODAI) are presented. The study revealed that the majority of the respondents enjoyed the ODAI, and agreed that the online discussions had allowed them to achieve a range of cognitive and social learning outcomes, and to develop some important graduate skills.

Introduction

Online discussion boards are now commonly used in many university courses, and in particular for distance learning. Electronic means of communication have overcome the tyranny of distance by providing a mechanism for students across the globe to interact with one another at a time and place that is convenient to them (Berge and Collins, 1995; Whatley and Bell, 2003; Wu and Hiltz, 2004). Further, student interactions on online discussion boards facilitate a socio-constructivist approach to teaching involving social and collaborative learning processes (Stacey, 2002). The main objective of this study was to explore distance education students' perceptions toward compulsory participation in online discussions and to determine the impact of online discussion on students' perceived learning outcomes. Other research objectives included identifying barriers to participation and uncovering factors that encourage participation in online discussions.

Asynchronous Online Discussions and the Socio-constructivist Learning Paradigm

The socio-constructivist learning paradigm emphasises learner-centred learning, whereby learners share their experiences and perspectives with one another to arrive at shared meanings and perspectives (Goodyear, 2001; Kolb, 1984; Whatley and Bell, 2003; Wilson and Stacey, 2004). Students are encouraged to collaborate and engage in active dialogue to construct knowledge by discovering principles for themselves (Bruner, 1990; Jonassen, 1999). The socio-constructivist paradigm involves assisting students to extend their knowledge ('scaffolding') by encouraging them to go beyond merely answering questions to actively engaging in dialogue with other students and instructors ('reciprocal teaching') (Birch, 2004; Hausfather, 1996). In this paradigm, the role of the teacher has shifted away from one-way transmission of information toward facilitation of student learning through greater emphasis on peer interactions for cognitive development (Curtin, 2002). Social interaction influences cognitive development and raises the quality of distance learning programs (Moore, 1989; Vygotsky, 1978; Wilson and Stacey, 2004). While the socio-

constructivist approach is readily achieved in face-to-face learning environments, it is more difficult to replicate in distance education settings. However, online discussion forums now facilitate a socio-constructivist approach by allowing students who are studying at a distance to develop learning communities through sharing and reflecting upon their experiences and perspectives and providing feedback to one another online (Wilson and Stacey, 2004).

Asynchronous online discussions have been found to yield both cognitive and social learning outcomes (Birch, 2004; Harasim, 1997; Wu and Hiltz, 2004). Indeed, Larkin-Hein (2001) argued that online discussions allow active learning, and thus facilitate the development of higher-order thinking skills and deeper learning (Gibbs, 1992). Further, online discussion forums "promote high levels of cognitive engagement and critical thinking" (Wu and Hiltz, 2004, p.141; Thomas, 2002). Asynchronous online discussions allow "an intellectual environment that encourages active, thoughtful, and equal participation from all comers" (Althaus, 1997, p.158). Moreover, asynchronous online discussions permit students to interact at their own pace, thus giving them an opportunity to more carefully consider their contributions prior to engaging in the discussion (Birch, 2004). Thus, online discussions may be particularly beneficial for students from non-English speaking backgrounds (Curtin, 2002). One major benefit of online discussions is the opportunity that students have to "practise the new language of the knowledge community" (Wilson and Stacey, 2004, p.2) in a safe and supportive learning environment. These benefits may encourage educators to make greater use of online discussions.

Case Study – Promotion Management Course

Distance education students in an undergraduate course in promotion management were required to participate on the online discussion board as a compulsory part of their assessment (10% of the total mark). The primary objectives of the assessment were to replicate the on-campus students' tutorial experience by stimulating greater interaction between the distance education students, and fostering a social and collaborative learning environment in which students could develop meanings by sharing their experiences and perspectives (Jonassen, 1999). Other objectives included facilitating students to develop better electronic communication skills and reducing the sense of isolation that distance education students sometimes experience. Students were required to make four postings of 100-150 words across ten topics. Students were asked to share their experiences and perspectives on a given topic by posting either an original comment, responding constructively to another student's contribution, or synthesising a number of students' responses. Students were provided with a rubric for assessment that explained that their contributions would be evaluated as being excellent, good, sound, limited or minimal, in terms of the insightfulness of their comments, their understanding of the underlying theory, and their ability to apply the theory to 'real-world' marketing situations.

Research Method

The research method involved conducting an electronic survey toward the end of the semester. Students were asked to indicate their level of agreement with a number of statements concerning the online discussion assessment item (ODAI). These statements were developed to measure students' perceptions of the various cognitive and social outcomes of the ODAI, as well as whether the ODAI had assisted with the development of important

graduate skills. Students were also asked about their attitude toward online discussions in general, and then the ODAI in particular. The statements were developed from a review of the literature and an exploratory study that had been undertaken in a previous offering of the course.

Findings and Discussion

Of the 161 distance education students enrolled in the course, 72 (44.7%) responded to the survey. The majority of the respondents were female (80%) and aged 21-29 years (80%). The respondents to the survey included both on-shore (40%) and off-shore students (60%), and despite being a distance education course, 70% of the respondents reported that they were full-time students (many students in the course are enrolled with overseas partner colleges). However, 37% of the respondents also reported that they were full-time employed. Over half of the respondents (55.4%) indicated that English was not their first language. Most of the respondents (73.8%) had completed less than 13 courses in their program.

To assess students' perceptions of whether the ODAI had yielded beneficial cognitive and social outcomes, as well as, important graduate attributes, students were asked to respond on the extent to which they agreed that the ODAI had allowed them to achieve these outcomes (table 1).

Table 1: Cognitive and Social Outcomes of the ODAI (%)

Item	SA	A	N	D	SD	Mn	StD
Cognitive outcomes							
The ODAI allowed me to apply the theory to real-world examples	38.5	47.7	10.8	1.5	1.5	1.8	0.8
The ODAI encouraged me to think more deeply about key concepts	36.4	43.9	13.6	3.0	3.0	1.9	0.9
The ODAI helped me to understand key concepts	25.8	51.5	19.7	3.0	0.0	2.0	0.7
The ODAI allowed me to assess my progress relative to other students	13.8	47.7	30.8	6.2	1.5	2.3	0.8
Social/cognitive outcomes							
The ODAI provided me with an opportunity to gain feedback on my opinions from my instructors	36.9	55.4	4.6	3.1	0.0	1.7	0.6
The ODAI gave me an opportunity to share my views/perspectives	33.3	51.5	15.2	0.0	0.0	1.8	0.6
The ODAI provided me with an opportunity to gain feedback on my opinions from other students	24.2	51.5	16.7	7.6	0.0	2.0	0.8
The ODAI allowed me to share my experiences with others	16.7	63.6	18.2	1.5	0.0	2.0	0.6
Social outcomes							
The ODAI provided me with an opportunity to meet other students in the course	6.2	35.4	40.0	15.4	3.1	2.7	0.9
The ODAI allowed me to develop closer relationships with other students in the course	6.1	22.7	45.5	22.7	3.0	2.9	0.9

(Five-point Likert scale with 1 = SA strongly agree and 5 = SD strongly disagree)

The main cognitive outcomes that respondents agreed were achieved through the ODAI included allowing them to apply theory to real-world examples (86%), thinking more deeply about key concepts (80%), and understanding key concepts (77%). These findings confirm previous research which found that there are significant cognitive benefits to be gained from online discussions (Larkin-Hein, 2001; Thomas, 2002). In line with socio-constructivist

approaches to learning, outcomes which were both cognitive and social in nature included gaining feedback on opinions from instructors (92%) and other students (76%), sharing views/perspectives with others (85%), and sharing experiences with others (80%). This supports the findings of previous research that revealed that students perceive benefits from online discussions including improved learning skills and the quality of their learning (Harasim, 1997; Wu and Hiltz, 2004). While many respondents neither agreed nor disagreed with statements concerning the social outcomes of the ODAI, some respondents did agree that the ODAI had provided them with an opportunity to meet other students (42%), and that the ODAI had allowed them to develop closer relationships with other students (29%).

Respondents agreed that some important graduate attributes had been achieved through participation in the ODAI including providing an opportunity to improve their ability to present their thoughts and opinions in writing (79%), keeping up to date with their study (71%), becoming more confident in using online discussion boards (69%), and enabling the development of more effective electronic communication skills (69%) (table 2).

Table 2: Ability of the ODAI to Develop Important Graduate Skills (%)

Item	SA	A	N	D	SD	Mn	StD
The ODAI provided me with an opportunity to improve my ability to present my thoughts and opinions in writing	24.6	53.8	20.0	1.5	0.0	1.9	0.7
The ODAI encouraged me to keep up to date with my study	30.3	40.9	21.2	6.1	1.5	2.0	0.9
The ODAI helped me to become more confident in using online discussion boards	21.5	47.7	20.0	10.8	0.0	2.2	0.9
The ODAI helped me to develop more effective electronic communication skills	13.8	55.4	20.0	7.7	3.1	2.3	0.9

(Five-point Likert scale with 1 = SA strongly agree and 5 = SD strongly disagree)

Respondents were asked about their attitudes toward online discussions. Respondents agreed that having been required to participate in the online discussion, they would now be more likely to voluntarily participate in future courses (56%). Further, only 38% of the respondents agreed that it was difficult to find time to access the course discussion board, only 28% agreed that they did not like being required to participate, and only 31% of the respondents agreed that they would not participate if they were not required to do so. Moreover, many of the respondents (41%) agreed that 'online discussions should be compulsory', with a further 33% neither agreeing nor disagreeing with this statement (table 3).

Table 3: Students' Attitudes Toward Online Discussions (%)

Item	SA	A	N	D	SD	Mn	StD
Having been required to participate in the online discussion in this course, I am now more likely to voluntarily participate in future courses	7.8	48.4	23.4	15.6	4.7	2.6	1.0
I found it difficult to find time to access the course discussion board	13.8	24.6	27.7	27.7	6.2	2.8	1.1
Online discussions should be compulsory	7.6	25.8	33.3	27.3	6.1	2.9	1.0
If I was not required to, I would not participate in online discussions	4.7	21.9	29.7	42.2	1.6	3.1	0.9
I did not like being required to participate in the online discussions	6.2	15.4	35.4	35.4	7.7	3.2	1.0

(Five-point Likert scale with 1 = SA strongly agree and 5 = SD strongly disagree)

Respondents were asked about their attitude toward the ODAI on a range of items (table 4). On the positive side, less than one quarter of the respondents agreed that they did not like the ODAI (22%). Indeed, most agreed that they enjoyed the ODAI (59%) and considered it to be a good idea (73%), while almost half of the respondents agreed that it was a novel assessment item (45%), and most agreed it should be continued for future offerings of the course (72%). Further, only 27% of the respondents agreed that they had experienced some difficulty accessing the course discussion board, while only 20% indicated that the discussion board took too long to download. On the negative side, 38% of respondents agreed that the ODAI was a time-consuming assessment item, and 39% of the respondents agreed that they had problems meeting the deadlines for posting on the weekly discussion topics.

Table 4: Students' Attitudes Toward the ODAI (%)

Item	SA	A	N	D	SD	Mn	StD
I did not like the ODAI	6.2	9.2	24.6	43.1	16.9	3.5	1.0
I experienced some difficulty accessing the course discussion board	3.1	23.4	18.8	39.1	15.6	3.4	1.1
The discussion board took too long to download	1.5	18.5	16.9	55.4	7.7	3.4	0.9
The ODAI is a good idea	37.5	35.9	20.3	6.3	0.0	1.9	0.9
The ODAI should be continued for future offerings of this course	32.3	40.0	20.0	7.7	0.0	2.0	0.9
I enjoyed the ODAI	13.8	44.6	30.8	9.2	1.5	2.4	0.8
The ODAI is a novel assessment item	14.1	31.3	45.3	9.4	0.0	2.5	0.8
The ODAI was a time-consuming assessment item	14.1	23.4	25.0	32.8	4.7	2.9	1.1
I had problems meeting the deadlines for the discussion topics	10.8	27.7	27.7	26.2	7.7	2.9	1.1

(Five-point Likert scale with 1 = SA strongly agree and 5 = SD strongly disagree)

Limitations, Further Research and Implications

This study was restricted to one undergraduate marketing course and thus should be replicated for other courses using compulsory online discussions. Further, the 47% response rate may mean some non-response bias, with less satisfied students or students who are less comfortable in the electronic environment electing not to respond. Further, as 80% of the respondents were female, it was not possible to conduct comparisons on the basis of gender. Hence, further research should seek to obtain a sample with a more even gender distribution.

Major implications for online educators are that students perceive that there are valuable benefits to be gained from participation in asynchronous online discussions. In particular, respondents perceived significant cognitive benefits and the ability to develop important graduate attribute skills via online discussions. Further, the online discussion appears to support a socio-constructivist approach to learning by yielding a number of outcomes which are both social and cognitive in nature. To a lesser extent, distance education students also consider online discussions to yield some purely social benefits. The findings of this study also indicate that some of the barriers to online discussions that have previously been reported in the literature, such as limited access to the Internet and the time it takes to download the discussion board, may not be as problematic now as they have been in the past. Further, the findings indicate that students are not necessarily opposed to online discussion being set as part of their assessment, and this may be due to the learning outcomes that they perceive can be achieved through online discussions.

References

Althaus, S., 1997. Computer-mediated communication in the university classroom; An experiment with on-line discussions. Communication Education 46, 158-74.

Berge, Z., Collins, M., 1995. Computer Mediated Communications and the Online Classroom. Hampton Press, Cresskill, NJ.

Birch, D., 2004. Participation in asynchronous online discussions for student assessment. Proceedings of ANZMAC. 29 November – 1 December 2004, Wellington, New Zealand, CD-ROM.

Bruner, J., 1990. Constructivist theory; Explorations in learning and instruction. The Theory into Practice (TIP) database. Available from http://tip.psychology.org/bruner.html, accessed 9 June 2004.

Curtin, J., 2002. WebCT and online tutorials: New possibilities for student interaction. Australian Journal of Educational Technology 18 (1), 110-26.

Gibbs, G., 1992. Active learning in structured lectures. In: Gibbs, G., Jenkins, A., (Eds.). Teaching Large Classes in Higher Education, Kogan Page, London.

Goodyear, P., 2001. Effective networked learning in higher education: Notes and guidelines. Centre for Studies in Advanced Learning Technology,` Lancaster University, Lancaster.

Harasim, L. M., 1997. Teaching and learning on-line: Issues in computer-mediated graduate courses. Canadian Journal of Educational Communication 16 (2), 117-35.

Hausfather, S. J., 1996. Vygotsky and schooling: Creating a social contest for learning. Action in Teacher Education 18, 1-10.

Jonassen, D., 1999. Designing constructivist learning environments. In Reigeluth, C. M., (Ed.). Instructional Design Theories and Models, Lawrence Erlbaum Associates, New Jersey.

Kolb, D. A., 1984. Experiential Learning: Experience as the Source of Learning and Development. Prentice Hall, Englewood Cliffs, NJ.

Larkin-Hein, T., 2001. On-line discussions: A key to enhancing student motivation and understanding? Proceedings of the 31st ASEE/IEEE Frontiers in Education Conference. Reno, NV, F2G6-12.

Moore, M. G., 1989. Three types of interaction. American Journal of Distance Education 3 (2), 1-6.

Stacey, E., 2002. Learning links online: Establishing constructivist and collaborative learning environments. In McNamara, S., and Stacey, E. (Eds.). Untangling the Web: Establishing Learning Links. Proceedings of ASET 2002. Available from http://www.aset.org.au/confs/2002/stacey.html, accessed 9 June 2004.

Thomas, M. J. W., 2002. Learning with incoherent structures: The space of online discussion forums. Journal of Computer Assisted Learning 18 (3), 351-66.

Vygotsky, L. S., 1978. Mind and Society: The Development of Higher Mental Processes. Harvard University Press, Cambridge, MA.

Whatley, J., Bell, F., 2003. Discussion across borders: Benefits for collaborative learning. Education Media International, 139-52.

Wilson, G., Stacey, E., 2004. Online interaction impacts on learning; Teaching the teachers to teach online. Australasian Journal of Educational Technology 20 (1), 33-48.

Wu, D., Hiltz, S. R., 2004. Predicting learning from asynchronous online discussions. Journal of Asynchronous Learning 8 (2), 139-52.