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Understanding the experience of university students as facilitators of the learning process within the medium of online discussion forums

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Knowledge and skills of how to use computer conferencing techniques, such as online discussion forums, remains modest amongst most academics. This paper presents a conception of the online discussion forum as a context that supports student centred peer e-learning. In particular, the paper overviews research findings relating to the experience of university students as facilitators of the learning process as a central element of this approach to discussion forums. Data were collected through semi-structured interviews with students including both open and closed ended questions. The findings presented in the paper support the proffered approach as a viable means to effectively position students at the centre of an online peer learning experience. Such an approach could be of interest to academics looking to incorporate computer conferencing techniques and create or maintain meaningful peer learning opportunities for their students.

Background

It is widely recognised that the tertiary education sector is undergoing considerable change in its delivery of teaching and learning. On the one hand, there is a growing appreciation of the value of integrating peer learning opportunities for students to enrich the learning process and deepen learning (Boud, 2001). On the other, more and more universities are incorporating computer-mediated communication (CMC), in particular computer conferencing (Garrison, 1997; Rourke & Anderson, 2002), in the delivery of their curricula (Tallent-Runnels et al., 2006). Although there has been a substantial increase in the use of CMC within the sector, knowledge and skills of how to use it, let alone create meaningful peer learning opportunities, remains modest amongst most academics (Stodel, Thompson, & MacDonald, 2006).

Peer learning in higher education

Peer learning has proven to be of educational benefit in that it allows for sharing of knowledge, ideas and experience between students (Boud, 2001), deepens cognitive understanding (Biggs, 1999) and improves students' interpersonal and social skills (Light & Cox, 2001). The use of peer learning is aligned with a constructivist view of teaching and learning allowing the learner to take a more active role in the learning process (Biggs, 1999; Richardson, 1997) and thereby enhance the students ability to not only reiterate but apply the new knowledge (Engvig, 2006).

Recent research investigating peer learning has reported it "provides an autonomy-supportive environment that fosters independent thinking" (Tien, Roth & Kampmeier, 2002, p. 619) and is useful in improving "knowledge acquisition, skill development and personal growth attributes" (Heaney, Gatfield, Carke, & Caelli, 2006, p. 3). Furthermore, students themselves have indicated the benefits of peer learning stating "it was easier to understand a concept explained by a fellow student who had just grasped it, than the same concept explained by the lecturer who was on a much higher plane" (Nicol & Boyle, 2003, p. 465). However, students have also identified a concern with peer learning, in that they at times believe their peers do not know more than they do (Harrington & Hathaway, 1994; Rourke & Anderson, 2002).

Discussion forums as context for peer e-learning

The usage of computer conferencing, and more specifically online discussion forums, has increased dramatically in the delivery of higher education. While much of the usage is didactic in format and positions the academic at the centre of the learning process, discussion forums can provide a means to promote peer learning or student to student interaction (Harris & Sandor, 2007, Garrison, 1997; Kear & Heap, 2007). In course related online discussion forums students are often given the opportunity to respond to a set content related topic and have on-going discussions with their peers on this topic (Johnson, 2006). As such, the nature of asynchronous online discussion forums (messages and postings can be viewed when convenient for participants) offers students the time to reflect on the topic or discussion and thereby encourages a more in depth and constructive dialogue (Garrison, 1997; Johnson 2006).

Considering the recognised benefits of peer learning coupled with the increased usage of CMC, initiatives that promote greater student involvement and positions them as central in the online learning process are needed. Figure 1 presents a model of discussion forums as a student centred peer e-learning environment. This model positions the student, as the content expert and facilitator on a specific topic, at the centre of the learning event and the instructor as the overseer who remains abreast of the dialogue to offer timely support and guidance as required. Such a conception shifts the focus of attention from the instructor to the student. Students take turns acting as content expert and managing discussions. A short essay or primer is prepared and posted by the nominated student as the basis or start point for discussion. This approach positions the nominated student as the content expert with greater knowledge on the topic compared to his or her peers. In this way, the expressed criticism mentioned earlier that students may feel their peers do not know more than they do is largely resolved.

Figure 1: Online discussion forum as a student centred peer e-learning environment
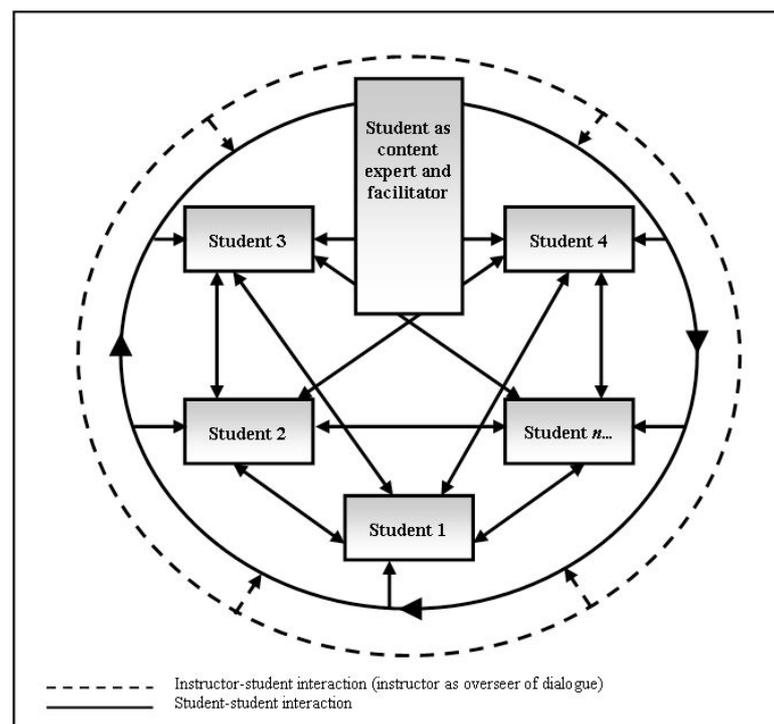
The framework has been developed over the past four years as a central component of two postgraduate courses. These courses, social and behavioural determinants of health and environment and population health, are delivered in both blended and online modes. As a central component of these courses, discussion forums run weekly with set topics corresponding to weekly course content. All students are assigned to a topic and are assessed on their primer, the facilitation of the discussion and their postings in all discussion forums. All discussion forums are timed allowing students to access the forums for a limited period only, usually two to three weeks per forum to compress the discussion period and create momentum within the dialogue.

Overall, anecdotal and course evaluation feedback from students has been very supportive of the approach. To develop the approach further more rigorous examination was needed. In 2007 a Griffith University e-learning fellowship was awarded to research this conception of discussion forums. The aim of the research project was to develop this framework of the online discussion forum as a context that supports student centred peer e-learning including developing an understanding of student perceptions of the approach in terms of their learning and learning experience. The purpose of the present paper is to share findings specifically relating to the experience of students as facilitators of the learning process within an online discussion forum.

Method

Data were collected through semi-structured interviews with open and closed ended questions. The closed ended questions were five point Likert-style questions with response categories ranging from strongly agree through neutral to strongly disagree. To extend the depth of the explanation afforded by the closed ended questions, open ended questions were asked to guide a dialogue about the framework. The instrument for the interviews was structured around five themes: mediating factors; role and effectiveness; participation and interaction; learning opportunity; and facilitation. The questions relating to facilitation were divided into the week the student facilitated the discussion and the weeks where fellow students facilitated the discussions. Questions were asked about sufficient knowledge, confidence to lead and ability to facilitate discussion.

The sampling frame for the research was students enrolled in the two courses where the framework has been utilised. Students received invitations to participate in the study by email and information about the study was also posted on the course websites. Out of the 31 students who were asked to participate in the research 20 students agreed to take part. Interviews were conducted either face to face for internal students or online for external students. Ethics approval for the research was granted by Griffith University Human Research Ethics Committee (Protocol No. PBH/21/07/HREC).

Analysis

Analysis of the data was both quantitative and qualitative in nature. The closed ended questions were analysed with descriptive statistics (mean and percentage). The open ended questions were transcribed and analysed using thematic analysis. The analysis of the open-ended

questions was structured around the themes set out in the instrument, mediating factors, role and effectiveness, participation and interactions, learning opportunity and forum facilitation.

Research findings

Preliminary findings of the project have established that the large majority of the students were positive about the approach. More specifically, students reported that they found the approach to be effective for their learning experience (35 % agreed (A) and 50 % strongly agreed (SA)), enhanced their learning outcomes (60 % A and 25 % SA), promoted interaction with peers (55 % A and 10 % SA) and encouraged them to take ownership of their learning (55 % A and 35 % SA).

In response to open ended questions about the contribution of the approach to their learning many of the students highlighted the benefits of sharing knowledge and experiences with their peers and relating the topics to personal experiences. One student commented:

> *It is appreciable in the way they [other students] have taken the examples from their daily life. Particularly interesting to know experiences of the people who have come from different countries and in way helped me to understand the global situation.*

Findings relating to student facilitation roles

Data was gathered on student facilitation roles relating to:

- The week the student facilitated the discussion; and

- The weeks other students facilitated the discussions.

Table 1 displays the breakdown of participant responses to three questions about the week the participant posted the primer and facilitated discussion. A majority of the students (75 %) agreed (A) or strongly agreed (SA) they had sufficient knowledge on the topic the week they facilitated the discussion. Most students felt confident to lead discussion (80 % A or SA) and able to facilitate discussion (75 % A or SA). These results indicate the majority of students had a positive experience and felt able to adequately undertake the role of forum facilitator. In support of these results, in response to an open ended question relating to participant experience as facilitator, one student commented:

> *Understanding the topic and collecting proper material for the topic and going through it makes me get sufficient knowledge. Once I understand ins and outs of the topic, automatically it gives me the confidence to lead the topic. Comparing and contrasting my ideas with others help me to facilitate the discussion.*

The quantitative data indicated that the majority of the students felt able to lead forum discussion. However, the open ended questions revealed diversity within the participants about their facilitation experience. Some students indicated they found the facilitation role to be easy:

> *It was somewhat easy to facilitate the discussion.*

> *I never had problem with getting people involved in the discussions.*

Another student emphasised the importance of the link between the research required in the preparation of the primer and the facilitation role:

I had done the research on that specific topic and felt that I could lead a discussion.

In contrast, students also indicated there were difficulties associated with being the facilitator, concerns were voiced from some students about the nature of some posts;

It was difficult sometimes to facilitate a discussion, some postings were difficult to take further, to take to the next step.

Some postings were making statements and not discussing that much, some would post a comment with references and that's final.

These quotes suggest facilitators were at times confronted with postings that were not in sync with the discussion thread. In these cases it may be that the posts were not in the "spirit" of a discussion but more about meeting assessment requirements to post to all forums.

Table 1: Student experiences of being a discussion forum facilitator

Question	Responses in percentage (*n*=20)	
I felt I had sufficient knowledge on the topic	Strongly agree	15 %
	Agree	60 %
	Neutral	10 %
	Disagree	15 %
	Strongly disagree	0 %
I felt confident to lead discussion on the topic	Strongly agree	15 %
	Agree	65 %
	Neutral	5 %
	Disagree	15 %
	Strongly disagree	0 %
I felt able to facilitate the discussion on the topic	Strongly agree	20 %
	Agree	55 %
	Neutral	15 %
	Disagree	10 %
	Strongly disagree	0 %

One issue widely reported by students was time delay between postings, making facilitation more difficult and at times frustrating. Some examples:

It is not easy to facilitate, for example you post your primer today say Tuesday and then there is no postings Wednesday, Thursday, Friday even Saturday. And then the forum is about to close the next week.

It was spread out over a long period of time as a few people were slow to post comments.

These quotes suggest that while the forums were opened for a specific time period (approximately 2-3 weeks) to create momentum within the dialogue, students were still concerned and frustrated when their peers responded slowly to the posting of the primer or postings were sporadic. These concerns may in part be related to the facilitation role being part of assessment and hence facilitators wanting to have sufficient time and opportunity to demonstrate their commitment and secure available marks.

The second component of data gathered during the project related to student facilitation roles focused on the weeks other students facilitated the discussions. Table 2 displays the breakdown of participant responses to three closed ended questions on these weeks. For the weeks when their peers (other students) facilitated the forum discussions most students indicated that they had sufficient knowledge on the topic (70 % agree (A) or strongly agree (SA). This is comparable to the finding relating to the self reflection question about the participant having sufficient knowledge for the week they posted the primer and facilitated discussion (75% A or SA). In response to open ended questions relating to participant experience of their peers as facilitator, a number of positive comments were made such as:

> *Some class members are extremely knowledgeable about their topics which I found inspiring.*

This comment is consistent with the finding that the majority of participants (75 % A or SA) felt their peers did a good job leading their allocated discussion forum.

Table 2: Student experiences of their peers as facilitators

Question	Responses in percentage (*n*=20)	
Other students had sufficient knowledge on their topic	Strongly agree	5 %
	Agree	65 %
	Neutral	25 %
	Disagree	5 %
	Strongly disagree	0 %
Other students did a good job leading their discussion forum	Strongly agree	15 %
	Agree	60 %
	Neutral	25 %
	Disagree	0 %
	Strongly disagree	0 %
Other students were able to facilitate discussion on their topic	Strongly agree	5 %
	Agree	50 %
	Neutral	45 %
	Disagree	0 %
	Strongly disagree	0 %

However, only around half of participants (55 %) agreed or strongly agreed that their peers were able to facilitate the discussions. This contrasts with the finding relating to the self reflection question about the participant being able to facilitate discussion (75 % A or SA). In

response to an open ended question relating to their peers discussion forum facilitation skills, several participants indicated there were shortcomings or limitations to their abilities:

> *Some couldn't facilitate, they replied to postings only and didn't actually facilitate a discussion.*

Compared to the results from the week the student facilitated the discussion themselves, it is evident that the students felt they were better at facilitating forum discussion compared to their peers. This respondent's criticism of the facilitation skills of some of his/her peers contrasts with the quantitative data presented above. This disparity between quantitative and qualitative findings could be attributed to the difference between offering a general quantitative assessment of peers facilitation skills and the opportunity to qualify such assessment and provide more specific commentary.

Discussion of findings

This paper has focused on students' experience of student-led facilitation within a particular conception of the online discussion forum as a student centred peer e-learning environment. The findings indicate students were largely positive towards the approach of positioning students at the centre of the learning event as content experts and facilitator. Most students felt that they and their peers had sufficient knowledge on their topic, overcoming the concern reported in the literature regarding scepticism of students' knowledge and ability to facilitate discussions with their peers (e.g. Harrington & Hathaway, 1994; Rourke & Anderson, 2002). The strategy of combining the preparation and posting of a short essay (discussion primer) with the facilitation role means the student has advanced knowledge of the forum topic that provides a basis to facilitate the discussion. Hence, they are generally perceived by their peers as comparatively more knowledgeable on the topic being debated, which gives them the required expert standing within the forum.

Findings indicate students perceived their own facilitation skills to be better than that of their peers. This is particularly interesting given the finding that students felt their peers to be similarly knowledgeable on their nominated topic and that their peers did a good job facilitating forum discussion. These contrasting findings can be explained through social psychological theories relating to attribution and social comparison. Broadly speaking, these theories posit people are more likely to perceive themselves in a more positive way than others (Vaughn & Hogg, 2005; Weiten, 2004). Thus, in the present study individuals over attribute in their own favour when considering their facilitation efforts and under attribute when considering their peers facilitation skills.

One issue widely reported by students was time delay between postings, making facilitation more problematic and at times frustrating. Facilitation is an intensive, time consuming task with the facilitator needing to be online most days to keep abreast of the discussion and promote dialogue (Harris & Sandor, 2007). This finding is consistent with literature that suggests time delays in postings are a common frustration with asynchronous discussion forums (e.g. Finegold & Cooke, 2006; Vonderwell, 2003; Young & Norgard, 2006). A shorter set time for individual forums to be open

could compress dialogue, speed up the postings, reduce this frustration and expectantly improve facilitation.

With regard to working with the individual postings as part of the facilitation process, some frustration was expressed about the nature and contribution of some postings. Some of these more difficult posts may have been about meeting assessment requirements to participate in all content forums rather than actually *participate* in discussion on the topic. Yet, this finding also identifies some respondents may have struggled with what the facilitation role necessitates within the context of the online discussion forum. This suggests more explicit guidance for students on the facilitation role is needed, a finding concordant with the research findings of Pawan, Paulus, Yalcin and Chang (2003) that found students need training before they can take up the facilitation role. Such training would guide the facilitator's inputs within the forum and should be focused on content, how to lead discussion and group processes. The suggested focus on these three aspects of facilitation is similar to what was suggested by Jolliffe, Ritter & Stevens (2001) as the components of an effective moderator: be knowledgeable on the topic; keep the discussion on track; and keep participants motivated and interested. Students would need guidance on what facilitation means and suggestions of how to effectively operationalise this role. This could be done by what Anderson (2001) refer to as "role modeling" whereby the instructor facilitates the initial discussion/s to demonstrate effective facilitation.

Conclusion

Computer-mediated communication (CMC), in particular computer conferencing techniques such as the discussion forum, is being increasingly utilised in the delivery of university courses. This paper has presented findings of research to develop the online discussion forum as a context that supports student centred peer e-learning, in particular, the experience of students as facilitator of the learning process. The findings indicate students were largely positive towards the approach as a whole and, more particularly, the positioning of students at the centre of the learning event as content expert and facilitator. The innovation of combining the preparation and posting of a short essay (discussion primer) with the facilitation role was supported as a means to accord the student the required expert standing within the forum. However, greater guidance on the role and process of facilitation is needed for the students to more effectively manage critical, constructive and lethargic discussion. Nevertheless, this paper has presented a means to effectively position students at the centre of an online peer learning experience. Such an approach could be of interest to academics looking to incorporate CMC and create or maintain meaningful peer learning opportunities for their students.

References

Anderson, T. (2001). Teaching in an online learning context. In T. Anderson & F. Elloumi (Eds.), *Theory and Practice of Online Learning* (pp. 273-317). Athabasca, AB: Athabasca University

Biggs, J. (1999). *Teaching for quality learning at University.* Buckingham: Open University Press.

Boud, D. (2001). Introduction: making the move to peer learning. In D. Boud, R. Cohen, & J. Sampson (Eds.), *Peer learning in higher education: learning from and with each other* (pp. 1-18). London: Kogan Page.

Engvig, M. (2006). *Online learning: all you need to know to facilitate and administer online courses*. Cresskill, NJ: Hampton Press.

Finegold, A. R. D., & Cooke, L. (2006). Exploring the attitudes, experiences and dynamics of interaction in online groups. *Internet and Higher Education, 9,* 201-15.

Garrison, D. R. (1997). Computer conferencing: the post-industrial age of distance education. *Open Learning*: *The Journal of Open and Distance Learning, 12*(2), 3-11.

Harrington, H., & Hathaway, R. (1994). Computer conferencing, critical reflection, and teacher development. *Teaching and Teacher Education, 10*(5), 543-554.

Harris, N. & Sandor, M. (2007). Developing online discussion forums as student centred peer e-learning environments. In *ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007.*
http://www.ascilite.org.au/conferences/singapore07/procs/harris.pdf

Heaney, J-G., Gatfield, T., Carke, P., & Caelli, J. (2006). Using action research to implement and evaluate peer learning in marketing courses: engaging students through self-learning. In *ANZMAC 2006: Advancing theory, maintaining relevance. Proceedings ANZMAC Brisbane 2006.*

Johnson, G. M. (2006). Synchronous and asynchronous text-based CMC in educational contexts: a review of recent research. *TechTrends, 50*(4), 46-53.

Jolliffe, A., Ritter, J., & Stevens, D. (2001). *The online learning handbook: developing and using web-based learning.* London: Kogan Page.

Kear, K. L., & Heap, N. W. (2007). Sorting the wheat from the chaff: investigating overload in educational discussion systems. *Journal of Computer Assisted Learning, 23*(3), 235-247.

Light, G. & Cox, R. (2001). *Learning and teaching in higher education.* London: Paul Chapman Publishing.

Nicol, D. J. & Boyle, J. T. (2003). Peer Instruction versus Class-wide Discussion in Large Classes: a comparison of two interaction methods in the wired classroom. *Studies in Higher Education 28*(4), 457-473.

Pawan, F., Paulus, T. M., Yalcin, S., & Chang, C-F. (2003). Online learning: Patterns of engagement and interaction among in-service teachers. *Language Learning & Technology, 7*(3), 119-140.

Richardson, V. (1997). Constructivist teaching and teacher education: Theory and practice. In V. Richardson (Ed.), *Constructivist teacher education: building new understandings*. (pp.3-14). London: The Falmer Press.

Rourke, L. & Anderson, T. (2002). Using peer teams to lead online discussions. *Journal of Interactive Media in Education, 1*, 1-21.

Stodel, E. J., Thompson, T. L., & MacDonald, C. J. (2006). Learners' perspectives on what is missing from online learning: Interpretations through the community of inquiry framework. *The International Review of Research in Open and Distance Learning, 7*(3), 1-24.

Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., et al. (2006). Teaching courses online: a review of the research. *Review of Educational Research, 76*(1), 93-135.

Tien, L. T., Roth, V., & Kampmeier, J. A. (2002). Implementation of a peer-led team learning instructional approach in an undergraduate organic chemistry course. *Journal of Research in Science Teaching, 39*(7), 606-632.

Vaughn, G. M, & Hogg, M. A. (2005). *Introduction to social psychology* (4th ed.). Frenchs Forest, N.S.W: Pearson Education.

Vonderwell, S. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course: a case study. *Internet and Higher Education, 6,* 77-90.

Young, A. & Norgard, C. (2006). Assessing the quality of online courses from the students' perspective. *Internet and Higher Education, 9,* 107-115.

Weiten, W. (2004). *Psychology: Themes and Variations* (6th ed.). Belmont, CA: Thomson/Wadsworth.