SMALL GROUP LEARNING IN ONLINE DISCUSSIONS: STAYING IN YOUR OWN BACKYARD OR PEERING OVER THE GARDEN FENCE?

Mary Panko
School of Education
UNITEC, Auckland, NEW ZEALAND
mpanko@unitec.ac.nz

Abstract

This paper considers the responses of online students to two distinct collaborative small group structures. In one structure the students worked in closed groups, communicating only with one another, while in the other situation, although the students posted messages only to their own 'backyard' group they were also able to read the dialogues of all the other groups, 'over the fence'. Both structures were effective mechanisms for developing group skills of joint inquiry and problem solving tailored to different learning environments, although each had inherent advantages and disadvantages. The closed group structure encouraged sharing, while the 'over the fence' approach allowed students to be supported by behaviours and information from the wider class. The structures also encouraged a diagnostic attitude toward the learning process, as group members were able to examine their own experiences in the group and to extend their learning in metacognitive dimensions.

Keywords

Collaborative online learning; small-groups online; online learning communities

Introduction

As the realisation that knowledge can only be fully developed in a social setting has become increasingly recognised in e-learning (Bonk & King, 1998), the pedagogical concepts that guide the creation of different types of learning environments need to be continually re-examined. This paper therefore considers the impact upon students of two distinct collaborative small group structures. The primary difference between the two learning environments was that in one setting the students worked in closed groups, communicating only with one another, while in the other situation, although the students posted messages only within their own backyard group, they were also able to read the dialogues of all the other groups 'over the garden fence'.

Both cohorts of students were undertaking courses for a Graduate Diploma in Higher Education and were all studying in a mixed mode environment. That is to say, they had all encountered one another in a face-to-face manner before beginning any online dialogue, a fact that had direct bearing on the nature of their computer mediated communication.

In both classes the discussions contributed towards assessment, either by being directly graded via established criteria or by enabling students to complete a written assignment based largely upon their postings. Lastly, all online dialogue, both synchronous and asynchronous, was conducted by means of the Blackboard online course management system.

Case One

This was a class composed of initially 14 students participating in a course entitled 'Developing Successful Performance' where the online postings were a compulsory element of the students' participation. At the end of the first day they spent together in a face-to-face environment, they self-selected themselves into four groups, each comprising either three or four people, in order to explore a series of professional dilemmas online.

The e-moderator provided them with a detailed structure that they were requested to adhere to, as follows:

- Firstly, every individual was required to post on the discussion board a professional issue that had presented them with a predicament, and conclude this section with one or more questions that they had identified;
- Secondly, each member of the group would then respond to one another's dilemmas, either by suggesting possible actions, or by offering considerations of possible consequences. These replies were to be based on a combination of theory and personal experience;
- Lastly, once each member had replied, the individual who had posed the dilemma was asked to reflect on these replies and finally post a summary of his or her conclusions, which would incorporate any of the additional ideas that s/he felt pertinent.

The e-moderator designed this process to run over a four-week period, interspersed with a classroom session where training in peer-support techniques took place in a face-to-face manner. The e-moderator also made clear to the participants that she would not be taking part in the online debate but would be observing the process to ensure that agreed procedures were adhered to.

Outcome

At the end of the course six participants were interviewed via an online focus group to find out their reactions to the discussion process. Overall the students were highly enthusiastic about this technique, making comments such as:

I do feel enriched by the experience. I don't believe that my contributions, and therefore responses, would have ever reached this depth in a class situation. The use of the discussion board for this course, has therefore allowed me to grow in an area that would not have been possible in an on-campus forum.

Several also praised the degree of structure provided by the e-moderator, saying that without this structure they would otherwise 'have fallen into the trap of simply giving advice.' Many also remarked on the confidence they felt in revealing professional dilemmas within a small and closed group, this experience was heightened for them by being able to combine computer mediated communication with a knowledge and experience of their colleagues in a face-to-face manner. This was exemplified in the following statement:

> There was a definite advantage in knowing the other members in my group and the on-campus time working with the group greatly enhanced the online experience.

Of the six interviewed only one person felt that the structure had restricted the contributions she would otherwise have been able to make. However, it was interesting to observe that out of the four groups, one did not manage to function successfully until the course was almost completed and for much of the time one lone person begging online for someone to answer her represented this entire group.

Case Two

In the second example, some twenty-two students enrolled in a course called 'Learning Technologies in Education' and once again the groups were self-selecting, comprised five or six participants. In this environment all groups were provided with the same discussion topic by the e-moderator and at the end of their four week postings they were asked to deliberately 'peer over the garden fence' in order to collaboratively grade the online contributions of one other group. This meant that they were encouraged to read what the others were writing while their own communications were taking place.

The topic was 'Educational considerations in using telecommunications', and over a four-week period students were asked to explore questions such as:

- What works successfully in the field of educational telecommunications?
- Is teleconferencing a valuable learning option?
- Are there particular techniques that would make teleconferencing more effective?
- Are there other forms of communication you would use - or do you think online discussion just adds to the workload of both learner and student?

These issues carried a much lower level of personal revelation than in case one and therefore had a lesser need for privacy.

Outcome

The students took part with enthusiasm, generally contributing more than the required minimum number of postings and positively contrasted this small group situation with a previous experience they had had, when they worked as one large community. They discovered and shared a number of sources of ideas that quickly spread from one group to another, thereby indicating that at least some of each group were reading the postings from other groups. In addition, many of the participants decided to explore for themselves the nature of synchronous communication via a Blackboard Virtual Chat classroom.

All of the groups flourished although the contributions from different members varied widely in levels of cognitive and metacognitive awareness.

Discussion

Both of these models of group work can be seen as variants of Chong's (1998) case study computer conferencing scenario (1998, p. 160) where he also found the technique became, 'a means of challenging students to be more active and to become self-directed learners.' He cited Reisbeck's (1996) conclusion that electronic cases can function as an apprenticing tool for student knowledge construction.

The minor changes in the structure designed by the two e-moderators both raised different issues for the students. In the first case the sensitivity of the topics raised was supported by the 'closed group' situation where the students acknowledged that they felt safe and were able to communicate delicate issues quite readily as they had already had the opportunity to get to know one another in a face-to-face setting. It did however, introduce the drawback potentially inherent in very small groups who might be uncertain of the manner in which they were required to put up their postings and were also unable to observe others in order to gain confidence. This reinforces the observation of Tang (1998) who emphasised the importance of providing preliminary training in group skills such as leadership and feedback.

In the second case the groups were slightly larger and therefore had more opportunities for diversity without causing students to feel that the sheer number of respondents was overwhelming. In addition to this, students who had reservations about being seen to 'make mistakes' in a public domain were able to gain reassurance by reflecting on the postings of a number of other participants.

Conclusion

These findings from observation of students' reactions to online group work endorse earlier studies of co-operative and collaborative learning in a face-to-face setting (Slavin, 1985) which have demonstrated how positive effects of non-competitive behaviour on student learning as well as the increased learning motivation of students can result from these activities. Furthermore, Tang (1998) has pointed out that co-operative learning provides a non-threatening learning context for students in which members of the group provide scaffolding for mutual support. The implication being that firstly scaffolding should be provided in order to gain maximum learning benefit from group discussions and that secondly power is shared by the whole group as demonstrated in the second example by the development of peer assessment.

Finally, the structures designed by both e-moderators were capable of developing group skills of joint inquiry and problem solving tailored to different learning environments. These abilities enabled members to discuss in an active manner, reach consensus where necessary, and use one another as resources for learning. The structures also encouraged a diagnostic attitude toward the learning process as group members were encouraged to examine their own experiences in the group, and to extend their learning in metacognitive dimensions (Smith, 1984).

References

Bonk, C. J. & King, K. S. (1998). Computer Conferencing and Collaborative Writing Tools; Starting a Dialogue about Student Dialogue. In C. J. Bonk, & K. S. King, (Eds.), *Electronic Collaborators: Learner Centered Technologies for Literacy, Apprenticeship, and Discourse*. (pp.3-23). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Chong, S-M. (1998). Models of Asynchronous Computer Conferencing for Collaborative Learning in Large College Classes. In C. J. Bonk, & K. S. King, (Eds.), *Electronic Collaborators: Learner Centered Technologies for Literacy, Apprenticeship, and Discourse*. (pp.157-182). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Slavin, R. (1985). An introduction to cooperative learning research. In R. Slavin (Ed.) *Learning to cooperate, cooperating to learn.* New York: Plenum Press.

Smith, R. M. (1984). *Learning How to Learn*. Buckingham: Open University Press.

Tang, C. (1998). Effects of Collaborative Learning on the Quality of Assignments. In B. Dart & G. Boulton-Lewis, (Eds.), *Teaching and Learning in Higher Education*. Melbourne: Acer Press.

Acknowledgements