

STUDENT VOICE IN COLLABORATIVE LEARNING: OUR SPACE

Ann Hardie

Senior Lecturer, Victoria University Of Wellington, College Of Education

ABSTRACT

Courses that use a web interface are well suited to collaborative, interactive teaching approaches. This study focuses on patterns of interaction that occurred in small group collaboration. The students worked together on an assignment which they were required to complete collaboratively online as part of their assessment. All students successfully passed the assessment and reflected that collaboration was a valuable learning strategy.

INTRODUCTION

When student teachers share their observations to explore a genuine issue of classroom practices they are more likely to extend their personal understandings of the issue. This approach recognises the value of group interaction to build understanding through joint construction of knowledge. In collaborative learning Hiltz (1998) states “knowledge is viewed as a social construct, facilitated by peer interaction, evaluation and cooperation” (p.3). In order to verify how effective collaboration was for learning I studied a graduate online course in teacher education where 16 students were required to work collaboratively in 5 groups as part of an assignment. The size of a group has direct impact on managing the volume of online discussion (Bernard et al, 2000; Harasim, 1993) and the potential of the group to collaborate and reach consensus. In their study of collaborative group learning including group size, Du et al (2007) found that students did not indicate a preference for group size.

Interactions among students were text based, asynchronous, and for the most part relied on email and online forum discussion to facilitate their collaborative work. One group was also able to meet face to face as they lived in close proximity. The assignment required that groups reach consensus through discourse about inclusive practices suitable for primary classrooms. A genuine and relevant issue or problem provided purpose for learners to be engaged in discourse and an authentic learning context is more likely to encourage collaboration (Grabinger, 1966). Characteristics of authentic tasks include tasks that have relevance to the real world, are sufficiently complex to

investigate over a sustained time period, can be examined from different perspectives and provide opportunities to collaborate and reflect (Herrington, Reeves & Oliver, 2006).

ASSESSMENT & COLLABORATION

Dirkx and Smith (2004) noted that although learners expressed that they wanted to be engaged and active in their learning they were ambivalent towards small group learning. If collaboration is required as part of assessment, then students will participate and contribute to their group work as they need to in order to pass the course. Campbell (2002) in her faculty survey on online instructors found that “giving credit for presence online was a successful way to encourage interaction” (p.32). She termed this “necessary coercion” (op. cit.) which indicates that assessment was required to ensure interaction. In their web article Hiltz et al (nd p.15) conclude that a collaborative group assignment increases motivation, active participation and quality of learning for online students. Graham and Misanchuk (2004) discuss assessment of both product and process where there is group accountability for the product and individual accountability for the process. When individuals are assessed for their contribution to the collaborative process and achievement there is veritable commitment to the group.

Several writers suggest a progression of change that learners experience as they learn collaboratively (Bernard et al., 2000; Hasler-Waters & Napier, 2002; Palloff & Pratt, 1999; Salmon, 2002). Hasler-Waters and Napier (2002) note several layered elements for effective online collaboration including getting organised, building trust, establishing communication, getting acquainted and providing support (p. 347). Similar elements are identified by Bernard et al. (2000) in their matrix of components (commitment, coordination, communication) and stages (exploration, elaboration, evaluation) of collaborative learning (p.273).

TASK STRUCTURE

In this study the assignment task had a definite sequential structure to promote collaboration which is important to ensure a positive, effective experience that scaffolds the tasks and learners.

Step 1: assignment expectations, assessment criteria

Step 2: each group form their own guidelines

Step 3: personal experience shared and discussed

Step 4: related literature selected and linked to support group understandings

Step 5: key ideas prioritized to form the group report

Step 6: personal reflection journal

“One way community can be developed is through the mutual negotiation of guidelines regarding how the group will participate together” (Palloff & Pratt, 1999, p.29) so each group was required to generate an agreed set of guidelines that would act as an informal contract to encourage a sense of community and commitment to the group. Negotiation of conventions is identified as an important stage and although it may involve conflict this is how the community establishes itself (Redfern & Naughton, 2002). Du et al (2007) propose that “a system that rewards individual effort when embedded within a collaborative learning context” (p. 11) can produce conflict within the group and implies that task design is important.

In their groups students were asked to share what they had experienced in their classrooms and discuss and teaching practices they considered inclusive. Small group interaction provided sound opportunities to explore issues and form group opinions. As the issue of creating inclusive classroom environments was a genuine one it engaged and motivated discussion. The interaction provided for common understandings to be formed as students interacted and modified their thoughts. “Learning is not only active but also interactive” (Hiltz, 1998, p.3).

Selected compulsory readings gave perspectives on inclusion and students were able to draw on these as they constructed their understandings of the issues. As these readings, with one exception, were from New Zealand literature sources, I considered that familiar environments would probably resonate with previous observations and experiences in schools, and provide a context relevant to their discussion. The structure of the assignment guaranteed that steps 3 and 4 had the largest allocation of time as it is through the process of discussion that learning and consensus evolves. Dirks and Smith (2004) state that “it is through consensus that members of the group are required to listen, hear, understand and finally accept the view point of fellow group members” (p. 137). The group report was the product of the negotiation and final consensus. The last step was a reflective statement where individuals commented on what they thought of working in collaboration with peers.

METHOD

Transcripts of each group’s threaded discussion for the assignment task were reviewed to see if common patterns emerged in group interactions. A coding system was

developed where interactions were coded as content units based on the purposes of the interaction. These content units were identified and counted to provide quantitative data.

A content unit was coded either as socialisation, organisation, discussion, or consensus, depending on its main purpose. Content units were coded as: *socialisation* for brief, friendly greetings; *organisation* contained information set responsibilities and approaches; *discussion* where interactions relevant to the purpose of the assignment such as descriptions of what had been observed or read were evident; and *consensus* where decision making processes to reach consensus were evident.

At times content units overlapped in their purpose, so the main purpose or purposes were determined and coded. Coding of purpose did not allow for the length or quality of the contribution to be acknowledged. A substantial contribution, for instance, received the same code count as a shorter one. Content units were counted to compare and explore patterns of interaction.

FINDINGS

Content unit totals are presented as a weekly percentage of the group's total content units for the assignment for each group (Figure 1) and show how group patterns varied.

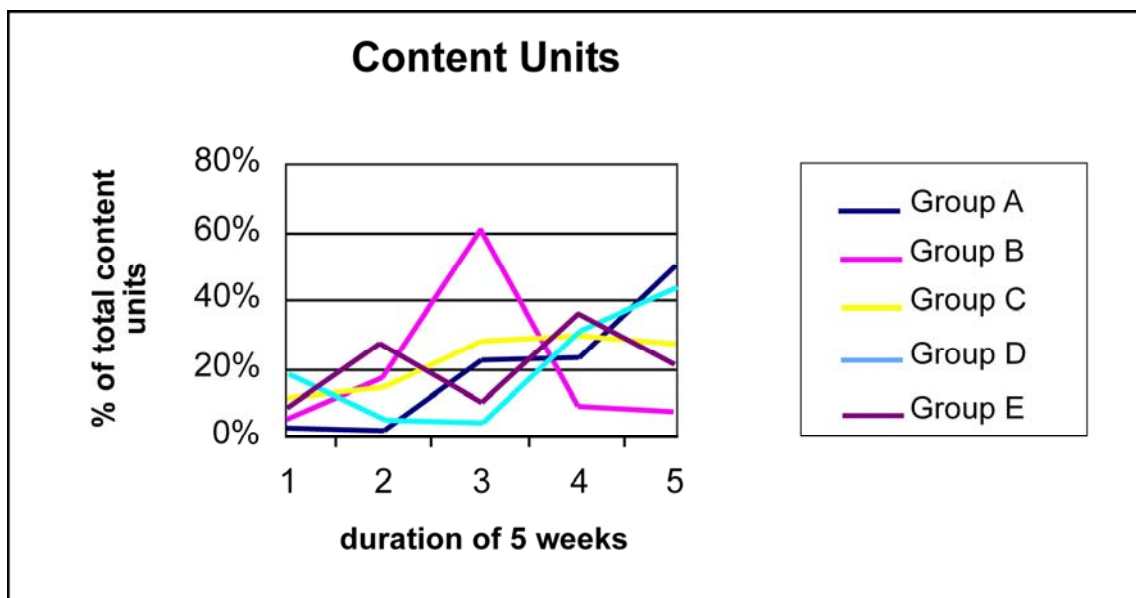


Figure 1: Content unit totals over the duration of the assignment

The findings are explored in a two ways.

- Group comparison explored commonality or difference in patterns of interaction.

- Content unit comparison to determine dominant purposes of interaction.

Group comparison

Group A (n=4)

Although Group A interacted briefly in week 1 for the purposes of socialisation and organisation these aspects of group interaction were also constant for the duration of the assignment as group members appeared to enjoy sharing aspects of their lives. Most of the discussion on the assignment issue occurred in weeks 3 and 4 when discussion formed 34.7% of their total content units. Their interest in the topic and enthusiasm for working alongside one another appeared to be important to this group. Most content units were in week 5 where 31% were dedicated to consensus. There were pedantic wordsmiths in this group and they interacted carefully to modify their phrases in order to satisfy each group member.

I found working on an assignment with people was very rewarding as it allowed me to see the subject from points of view that I wouldn't normally have thought of. I think I got a lot more out of the task than if I had completed it individually – the others were able to pick out points in the readings that I had overlooked and vice versa, and discussion widened my thinking. (Student A2)

I felt excited to be completing something with other people, and happy to feel the people on the course there, responding to my ideas and giving me something back for me to think about. I wouldn't hesitate to complete group work like this again. It was a welcome change from doing assignments alone with no-one to really talk about them in depth. (Student A4)

Group B (n=3)

Group B did not socialise much more than initial greetings at the commencement of the assignment. They were able to meet face to face and frequently did so which may have decreased the need to replicate social interactions online. Members recorded their understandings and decisions online in order to be assessed. This group had 51.9% of their content units in week 3 which were discussion units. Being able to meet had an impact on the pattern of their interactions. In week 5 their sole purpose to be online was for consensus.

Our face-to-face discussions were lively as we discussed the schools we had visited, what they were and were not doing, and what we thought we could do. When talking face to face we got the tone of the comments, and could respond, and get responses much quicker than online. We were commenting on statements other people had made online but they sounded, to me at least, less contrived. (Student B3)

Group C (n=3)

This group's interaction showed group members carefully matching observations and ideas from the readings. The group began their discussion with social comments. Week 3 and 4 interactions, 41.8% discussion content units were used for discussion of the topic. Figure 1 indicates that Group C content units increased gradually and then lessened only slightly in week 5 as they reached consensus.

Although our discussion at times was disjointed, it flowed more consistently than would have been possible if we attempted the assignment in a full class forum. The delay between making a posting and receiving a posting allowed me valuable time to prepare my response. I was able to refer to readings and analyse them in order to get my thoughts together. In a face-to-face setting we wouldn't have used the readings and referenced to the extent that we did. As a result we were able to delve deeper into the learning and our conclusions could be well validated and supported. (Student C1)

Group D (n=3)

Group D had one student who used the forum space as a space to socialise. Socialisation was 30% of this group's total content units as the group was responsive to this particular group member. This resulted in a mix of social and assignment discussion in most postings. Discussion content units formed 37.8% of all content units. The group conducted most of their discussion in the final two weeks and these tended to be substantial postings and members contributed unevenly. In the final week of the assignment the group was energetic in their praise of others which contributes to the steep rise of interactions in their final week.

I found this a really interesting exercise as it highlighted differences and was a living example of practising and behaving inclusively. Our views and experiences as a group varied enormously with two of us having more closely aligned understandings. (Student D2)

I found this task frustrating, valuable, rewarding, and enlightening all rolled into one! It was nice to feel part of a team. Being able to converse about ideas and see them through other perspectives has proved useful and made me more aware of classroom culture. (Student D3)

Group E (n=3)

Group E had two rapid periods of discussion. Weeks 2 and 4 had 26.5% and 34.9% of total content units. Two students had already organised their schedule and had begun working together in the forum discussion when in week 4 the other member began. They reorganised their viewpoints to include the late participant which explains the two distinct periods of interaction.

I had to think a lot about how to address C... not participating until the last minute. I may have been a bit tough, but collaborative means working together and he did not make a commitment to that until late in the process. I was not prepared to work to the edge just because he was, and I think it is better to state that. Age may have something to do with not being prepared to take up someone else's slack and clearly saying so. I was tough on C... not allowing him to come in at the last minute with a totally different view, but that was due to his lack of commitment and he understood that in the end. We did give him room to put in criteria of his own, but he did not do that. An important concept is to work out in the beginning how each person will be expected to contribute and how decisions will be made. (Student E1)

As a group we didn't manage to clearly define the deadlines or individual input requirements early on. (Student E2)

Patterns of Interaction Purpose

Content units were tracked over the 5 weeks to find patterns in interaction purpose.

Socialisation

Content units of socialisation had a constant, though small, presence throughout the assignment for most groups. For Groups A, C and D socialisation was most prevalent as they completed their assignment. Group B, the group who also met face to face, did most socialisation in week 3 and there was no socialisation in the final week.

I welcomed the opportunity of working as a team. There have been many times during the course when I have felt isolated so I have enjoyed the company and social aspects of participating in a small group. (Student C1)

Organisation

The smallest percentage of content units was for organisation where results show that some weeks involved little or no organisational details. Groups A, D and E were organising their reports in the final week but Groups B and C did not focus at all on organisation in that week.

Discussion

The assignment issue of inclusive classroom practices was the main purpose of interaction for all groups. Most discussion took place in weeks 3 and 4 where the purpose of discussion focused on the set issue in a concentrated way.

The assignment was structured so group members began by describing what they had observed or experienced in schools. This initial discussion tended to consist of single substantive postings by individuals. These were responded to by other students as they acknowledged similarities or differences.

I enjoyed the interaction and professional discussion that was part of the assignment. As individuals we all had experiences of other cultures that we could share with the group. This task has added to my knowledge of culture and inclusion. (Student B1)

Once the descriptions were shared, each group's purpose was to discuss the practices from their observations critically. Debate generated more discussion and subsequently there were more discussion content units in the last three weeks as students tried to make sense of their group postings.

I enjoy working collaboratively because I find it helpful in establishing my view, to reflect off others. I also like the challenge of academic debate. Having to argue one's case means really thinking about your own ideas. I also enjoy the social nature of group work and believe the results are usually better as everyone has different ideas. (Student E1)

Through debate, disagreement and the process of justifying our own ideas with the support of the readings, we were able to negotiate a set of criteria which included details and views that I don't think we would've come up with individually. (Student E3)

Consensus

Reaching consensus was concentrated in the final two weeks for most groups and was the main purpose of interaction for all groups in week 5. For most groups reaching consensus evolved from their discussion as they reflected on practices they had discussed and was reached with little debate.

Group A had 34.7% of their content units of reaching consensus. This was uncommon as the other groups did not require as many content units to reach consensus, however this may have been because this group had an additional group member which required further negotiation of ideas.

I was thrilled with our final list and feel this was a good representation of everyone's ideas. (Student A3)

It was a useful exercise in compromise and accommodation when deciding on the final six points, especially given that I was unable to take many of the interpersonal clues usually employed when dealing with someone face to face. (Student D1)

SUMMARY

Although all groups had the same online tools, assignment and timeframe they differed in their approaches to the task. Individual personalities, work schedules, and the nature of meeting either face to face and online, or online only, had impact on the flow of the interactions.

The face-to-face component experienced by Group B suggested that real time discussion and debate contributed to reaching a consensus more quickly. Reaching consensus online seemed to evolve as each aspect was discussed in depth, modified and accepted by the group.

Despite the lack of face-to-face contact, and the impossibility of tone and body language being conveyed in electronic form, a strong sense of mutual support was engendered by the sharing of thoughts and ideas. (Student C3)

Doing this task collaboratively has been hugely time consuming compared to face-to-face discussion. Rather than being able to rummage through the readings and verbally discuss my findings, I had to distil my thoughts and craft them into a piece of writing. (Student C2)

In the initial two weeks of the assignment I observed confidence building as group members socialised and organised their group processes and by the middle week group members were working alongside one another sharing, clarifying, debating and collaborating.

Working as a group was supportive and encouraged students to explore the topic thoroughly during their discourse to form shared understandings. Sharing aspects in detail gave students an even broader resource of experience to compare and consider.

This exercise has taught me how useful group work can be. The insights gained have certainly outweighed the negatives of the process. The task showed me the value of peer interaction. It is not only in a children's classroom that this practice is useful! There was an interesting interchange of ideas and it was affirming when our individual contributions were close in content. The body of work that was created by our combined efforts surpassed that which I would have created on my own. The contributions of others took my own thoughts on the subject to a new level of understanding. (Student C2)

Gabriel (2004), in her research of collaborative group interactions in a web-based environment, found that most students identified “enriched learning opportunities” as they “developed an appreciation for multiple perspectives” (p. 63). Students reflected

that working collaboratively and considering other points of view extended individual understandings.

Working in the group relieved some anxiety of not having to have all the 'right' thoughts and gave me reassurance with my own thoughts/thinking especially when others expressed similar views to mine or agreed with what I was writing/saying. The collaborative nature of the task allowed me to ask questions, seek the opinions of others in the group and consult. This helped to shape my own conclusions and was more useful than weighing up everything in my own mind and having to decide completely for myself. (Student C1)

CONCLUSION

In recent years there has been an increased focus on fostering collaborative approaches for online learning (Lock, 2002; Palloff & Pratt, 1999). Collaborative approaches that are learner centred reduce isolation for online learners as collaboration promotes communities of practice, provides multiple perspectives and encourages active participation through interaction.

Student reflections in this study identified a number of advantages of learning collaboratively online.

- Broadened individual experience to embrace multiple perspectives,
- promoted deeper personal understanding as individuals clarified, justified or reflected on viewpoints,
- reduced feelings of isolation due to the social nature of group work and encouraged individuals to engage with others and
- promoted well considered postings as asynchronous forums give students preparation time.

Learning in a social context allows learners to construct knowledge through interaction and have 'voice'. Learning is mediated through every aspect of the social context in which it takes place and this assignment used a social constructivist approach to provide opportunity for learners to explore an issue collaboratively with real application for them as teachers. As the issue was integral to their chosen profession, they were actively engaged and motivated to interact and discussions showed that the approach and issue provided "rich environments for active learning" (Grabinger, 1996, p. 665) which created a learning community where collaboration, communication, interaction and participation (Lock, 2002) were all visibly operating in each group studied.

Student feedback continues to inform and improve my practice and the quality of their work encourages further collaborative approaches. The assignment allowed space for students to voice their learning and reflection. It is appropriate to end with a student's voice.

I thought that doing this task collaboratively was extremely useful as I found it quite valuable to read and discuss the others' ideas and thoughts and compare them with my own to gain a better understanding of what makes a culturally inclusive classroom. (Student E3)

REFERENCES

- Bernard, R.M., & Rojo de Rubalcava, B., & St-Pierre, D. (2000). Collaborative online distance learning: Issues for future practice and research, *Distance Education*, 21 (2), 260-277.
- Campbell, K. (2002). Power, voice and democratization: Feminist pedagogy and assessment in CMC, *Educational Technology & Science*, 5(3), 27-39.
- Dirkx, J.M., & Smith, R.O. (2004). Thinking out of a bowl of spaghetti; Learning to learn in online collaborative groups. In Tim S. Roberts (Ed.), *Online collaborative learning: Theory and practice*. Hershey PA: Information Science Publishing.
- Du, J., Durrington, V.A., & Mathews, J.G. (2007). Online collaborative discussion: Myth or valuable learning tool. Retrieved 8 July, 2008 from <http://jolt.org/vol3no2/du.htm>
- Gabriel, M. A. (2004). Learning together: Exploring group interactions online, *Journal of Distance Education*, 19 (1), 54-72.
- Grabinger, R. S. (1996). Rich environments for active learning. In David H. Jonassen (Ed.), *Handbook of research for educational communications and technology: A project of the associations for educational communications and technology*. NY: Macmillan Library Reference USA.
- Graham, C.R., & Misanchuk, M. (2004). Computer-mediated learning groups: Benefits and challenges to using groupwork in online learning environments. In Tim S. Roberts (Ed.), *Online collaborative learning: Theory and practice*. Hershey PA: Information Science Publishing.

- Harasim, L. (1993). Collaborating in cyberspace: using computer conferences as a group learning environment, *Interactive Learning Environments*, 3 (2), 119-130.
- Hasler-Waters L., & Napier, W. (2002). Building and supporting team collaboration in the virtual classroom, *Quarterly Review of Distance Education*, 3 (3), 345-352.
- Herrington, J., Reeves, T.C., & Oliver, R. (2006). Authentic tasks online: A synergy among learner, task, and technology, *Distance Education*, 27 (2), 233-247.
- Hiltz, R. S. (1998). Collaborative learning in asynchronous learning networks: Building learning communities.
Retrieved June 12, 2007, from
http://web.njit.edu/~hiltz/collaborative_learning_in_asynch.htm
- Hiltz, R.S., Coppola, N., Rotter, N., & Turoff, M. Measuring the importance of collaborative learning for the effectiveness of ALN: A multi-measure, multi-method approach.
Retrieved May 26, 2008, from
http://www.alnresearch.org/Data_Files/articles/full_text/le-hiltz.htm
- Lock, J.V. (2002). Laying the groundwork for the development of learning communities within online courses, *Quarterly Review of Distance Education*, 3 (4), 395-408.
- Palloff, R. M., & Pratt, K. (1999). Building learning communities in cyberspace: Effective strategies for the online classroom. San Francisco: Jossey-Bass.
- Redfern, S., & Naughton, N. (2002). Collaborative virtual environments to support communication and community in internet-based distance education, *Journal of Information Technology Education*, 1(3), 201-211.
- Salmon, G. (2002). *E-tivities: The key to active online learning*. London: Kogan Page.