Developing an online learning community: A model for enhancing lecturer and student learning experiences

Elaine Khoo
Centre for Science and Technology Education Research (CSTER)
Michael Forret
Maths, Science and Technology Education, School of Education
Bronwen Cowie
Wilf Malcolm Institute of Educational Research, School of Education
University of Waikato

This paper reports on a study aimed to better understand teaching and learning in an online learning environment through the development of a learning community to facilitate successful learning experiences. To achieve this aim, a qualitative interpretive methodology was adopted to case study an online lecturer and his 14 students' experiences in a semester long fully online asynchronous graduate course in a New Zealand tertiary institution. Based on the findings, a model for understanding and developing an online learning community for adult tertiary learners is proposed. In accord with sociocultural views of learning and practices, the model depicts successful online learning as a mediated, situated, distributed, goal-directed and participatory activity within a socially and culturally determined learning community. The model informs our understanding of appropriate conditions for the development of online learning communities and has implications for the design and facilitation of learning in such contexts.

Keywords: online learning community, adult learners, tertiary institution, New Zealand

Introduction

Current research and practice in effective online pedagogy indicate support for the development of online learning communities (OLCs) in facilitating teaching-learning in online learning environments. A learning community describes a cohesive group of people with a specific focus on learning as transformatory participation and is concerned with teaching-learning processes and outcomes (Bielaczyc & Collins, 1999). This type of community generally has features such as shared goals, a positive socio-emotional environment for learning, active participation and distributed expertise. The advantages of developing OLCs are such that some believe their formation is vital to the success of online learning (Palloff & Pratt, 1999; Luppicini, 2007). An OLC is considered a tangible entity, formed through the mutual shaping of the community and the identities of its members as the community as a whole evolves towards shared learning goals. This approach aligns with sociocultural perspectives maintaining that understanding learning requires a focus on how learners participate in particular activities and practices, how they draw on the available tools, artifacts and social networks, and how they use and value the different discourses involved in a local setting. To understand the dynamic and complex processes in the mutual shaping of individual and collective knowledge growth in a community, the fundamental unit of analysis for learning is participation (Lave & Wenger, 1991).

The challenge of developing learning communities, however, remains Such entities cannot be coerced or pre-constructed but instead require social engineering and nurturing through which members are motivated and provided with opportunities to create such a community (Barab, Kling, & Gray, 2004; Schwier, 1999). This paper reports on a study aimed to better understand teaching and learning in an online learning environment through the development and application of an appropriate pedagogical framework. A brief description of the research conducted and its findings follows before the implications for facilitating effective teaching-learning experiences are outlined.

Research context

This study involved collaborating with an online lecturer to design and implement an intervention to facilitate successful learning experiences in a fully online Research Methods course. The intervention was informed by the findings of a baseline study conducted at the university to elicit the views of various online lecturers and their students on the nature of online learning and how learning can be successfully facilitated in such environments (see Khoo, 2009).

Research findings and discussion

Baseline findings

The baseline study findings and recommendations from the literature led to identifying five guiding principles to frame the development of a pedagogical intervention. The principles, which map onto five key sociocultural ideas, depict successful online learning as a mediated, situated, distributed, goal-directed and participatory activity within a socially and culturally determined learning community.

A collaborative approach for working with the online course lecturer, the *negotiated intervention strategy* (Jones & Simon, 1991), was adopted to frame and translate each of the guiding principles into teaching strategies (see Khoo, 2009). A qualitative interpretive methodology underpinned the case studied experiences of the lecturer and his 14 students. Data were collected through questionnaires, observations, interviews and online transcripts to assess the extent to which the intervention was successful in facilitating meaningful learning experiences.

Evaluation findings

Some key findings are exemplified below, in terms of each of the guiding principles, using participant pseudonyms.

Participation in a learning community is an approach maintaining that learners learn through increasingly proficient participation in the valued activities of a community (Barab, Kling, & Gray, 2004; Bonk, Wisher, & Nigrelli, 2004). From the online students' initial entry as newcomers to the class, they become increasingly enculturated into the responsibilities, beliefs, practices and rituals inherent in the course to progress towards expert-like status (Lave & Wenger, 1991). In the study, the development and *participation* in an OLC was evidenced by, 1) participants' evolution of shared learning goals from competitive ones at the onset of the course to a more collaborative view by the end, and 2) participants' intellectual, social and emotional development . The first is reflected in the following student quote:

> …but that's a change of outlook on it -- from a collaborative instead of a competitive view. As undergrads we did talk about a lot of stuff but always at the end was the exam, which was totally your own, you were responsible for your own results. This is kind of the other way round. It's like you are responsible for your own beginning but the group is responsible for your end. I think the attitude to have is that this is an ongoing conversation. It's a conversation and a discussion where people can contribute and every contribution is valuable to adding to the knowledge (Shania).

The second was illustrated through the lecturer's and students' developing personal understandings and skills (intellectual transformation), developing responsiveness and joint responsibility for their own and others' learning (social transformation) and developing positive attitudes towards the teaching and learning of research methods (emotional transformation) as a result of their participating in the course activities. The lecturer was positive about the overall conduct of the course:

> On a scale of 1 to 10, 1 being worst and 10 being best, I'd rate the course a 7, 7 and a half, about three quarters of the way there. I think it's gone really well… So I would rate it reasonably highly.

Students' felt they had benefited from the course as exemplified by the following:

> I'm glad I participated in the programme. I learned a lot about research and I learned that I enjoyed learning about it. I'm glad I did the course (Shaun).

Mediated action highlights the affordances of Web-based technology in allowing for rich interaction opportunities fundamental in mediating relationships and intimacy within the community (Anderson, 2004). The value of the technology in *mediating action* is illustrated through students' report of how the flexibility that online learning offered contributed to her learning:

> I do it [work online] around the rest of my life like at night. I went online most days and I was at least checking what was happening if not putting something on (Melody).

Distributed cognition acknowledges that as participants communicate, interact and collaborate, they access the knowledge, understandings and skills distributed across the group to achieve results otherwise difficult for an individual to accomplish (Dennen & Wieland, 2007). That *distributed cognition* was valued is evidenced in the next example in which students attested to the benefits of learning from more knowledgeable members of her class community:

> They [group members] know heaps more than me. Sometimes they came up with a different viewpoint that I hadn't thought about, and that's wonderful and also nice when they came up with the same things (Shania).

Situated activity highlights the role of authentic and relevant activities in creating a context for meaningful learning experiences whereby members of an OLC can work collaboratively with their peers (Barab & Duffy, 2000). In the study, the role of course tasks in *situating activity* was highlighted through participants' reports of how the first assignment [A1], completed through student group discussions focused on exchanging ideas to design research instruments, afforded bonding and consideration of various perspectives:

> You don't normally show people stuff that's in your assignments. For that [A1] we had to and we needed them to critique it to refer to their comments in our assignment because it was part of the grading. I found it really good because it brought us closer together. It was really good critical comments and I just found it really valuable (Melody).

Goal directedness connotes teaching as structuring goal-directed learning activities and assisting students to achieve those goals through meaningful and productive social interactions (Hung & Wong, 2000; Smith, Teemant, & Pinnegar, 2004). The significance of the *goal-directedness* was demonstrated when some types of participant interactions and participatory roles became more prevalent than others in two key course tasks involving group discussion and collaboration, problem-based scenarios (Scenarios) and A1. Scenarios required the consideration of multiple perspectives to form a group decision about data collection methods. It fostered a strong collective sense of purpose and teamwork (*social* theme of interaction) and related roles such as team coordinator:

> Vance (Posting # 34): *Kia ora. He ra tino pai mo katoa.* I volunteer to 'do surveys' proposal this coming week.

A1's goals, however, focused on the exchange of ideas in designing research instruments. It promoted *intellectual* and e*motional* themes of interaction and related roles such as giving feedback and providing encouragement respectively:

> Tanya (Posting # 16): Vance, I felt that your question sequence has a clear flow. Very concise. The type of interview gives space for interviewees to give meaning without you redirecting. I like it.

Overall, characteristics highlighted in the findings included increasing and active participation and active and diverse interaction and participation patterns contributing to the distributed expertise in the group to develop collective and shared understandings (Rogoff, 1994). Taken together with participants' developing identity as members of a group with accountability and responsibility to the group, the characteristics are suggestive indicators of a thriving learning community. On the whole, the findings support a sociocultural notion of learning as transformation of participation in the valued activities and practices of a community. They illustrate that the guiding principles framing the study are useful for understanding the design and development of an OLC. Although others have proposed models for developing OLCs from a sociocultural perspective (eg. Bonk et al., 2004), no one has considered the notion of participation that is framed and shaped by the use of authentic and relevant tasks to situate activity; the use of interaction and collaborative teamwork to tap into cognition that is distributed; the use

of activities to direct the accomplishment of particular goals and the use of tools and activities to mediate action as has been achieved in this study.

Implications for online teaching and learning practices

The implications of adopting a sociocultural pedagogy for online practice, as distilled from the case study are summarised in Table 1.

Table 1: Key sociocultural ideas for developing an OLC and their implications for practice

Sociocultural ideas	Implication for pedagogical/assessment practices
Participation in an OLC	1. Lecturers are to have clear reasons for establishing an OLC. These community-building expectations and associated benefits need to be made clear to students. 2. Lecturers need to facilitate learning as entry, enculturation, and legitimate participation in the valued activities of an OLC. 3. Lecturers and students are co-learners whose goals, knowledge and skills evolve in a mutually influential way within the teaching-learning process. 4. Lecturer modeling of different roles (managerial, pedagogical, social or technological) and student adoption of different roles is associated with meeting intellectual, social or emotional needs in the OLC. 6. Norms of conduct and conflict resolution mechanisms are important. 7. Learner-centred pedagogical strategies include dialogue, students contributing their own knowledge and joint knowledge construction.
Mediated action	1. Lecturer selection of Web-based tools and activities can afford different types of teaching-learning interactions. 2. Transparency of the Web-based technology adopted is crucial. 3. Course planning and assessment practices need to be broadened to recognise the individual, social and community contributions to learning in an OLC.
Distributed cognition	1. Lecturers need to create collaborative learning environments to capitalise on the diverse expertise in the community. 2. When lecturers shift to be facilitators of learning, students shift to be more active, responsible for their learning and capable of negotiating learning goals.
Situated activity	1. Lecturers need to carefully select teaching-learning activities as some afford more opportunities for interaction and collaboration than others. Activities situated in authentic and meaningful contexts allow students to interact and see real-world relevance and application of ideas. 2. Assessment strategies such as portfolios, story construction, scenarios, complex problems and design-based projects provide for authentic learning contexts.
Goal-directedness	1. Lecturers need to design activities with goals that are valued by learners and contribute to the collective development of a community. 2. The course structure, incentives and learning goals need to be supportive of community-building strategies given the many other priorities that compete for participants' time and energy.

Conclusion

The proposed model contributes to deliberations on developing OLCs from a sociocultural perspective. It resonates with other research on developing OLCs as a pedagogical strategy to shape and influence the teaching-learning context in ways that engage students in deeper and more meaningful learning processes (Luppicini, 2007; Barab, Kling & Gray, 2004; Palloff & Pratt, 1999; Schwier, 1999). It reconceptualises online learning from transmission and delivery to that of active transformatory participation where this is framed and shaped by the use of authentic and relevant tasks; the use of interaction and collaborative teamwork to tap into cognition that is distributed; the use of activities to direct the accomplishment of particular goals and the use of tools and activities to mediate action.

References

Anderson, T. (2004). Teaching in an online learning context. In T. Anderson & F. Elloumi (Eds.), *Theory and Practice of Online Learning* (pp. 273-294). Edmonton, Canada: Athabasca University. Retrieved March 11, 2008, from http://www.irrodl.org/index.php/irrodl/article/view/200/282

Barab, S. A., & Duffy, T. (2000). *From practice fields to communities of practice* (CRLT Technical Report No. 1-98). Retrieved from http://crlt.indiana.edu/publications/duffy_publ3.pdf

Barab, S., Kling, R., & Gray, J. H. (2004). *Designing for virtual communities in the service of learning*. NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511805080

Bielaczyc, K., & Collins, A. (1999). Learning communities in classrooms: A reconceptualisation of educational practice. In C. M. Reigeluth (Ed.), *Instructional design theories and models* (Vol. 2, pp. 269-292). Mahwah, NJ: Lawrence Erlbaum.

Bonk, C. J., Wisher, R. A., & Nigrelli, M. L. (2004). Learning communities, communities of practice: Principles, technologies, and examples. In K. Littleton, D. Faulkner & D. Miell (Eds.), *Learning to collaborate, collaborating to learn: Understanding and promoting educationally productive collaborative work* (pp. 199-219). New York: NOVA Science.

Dennen, V. P., & Wieland, K. (2007). From interaction to intersubjectivity: Facilitating online group discourse processes. *Distance Education, 28*(3), 281-297. doi: 10.1080/01587910701611328

Hung, D., & Wong, A. (2000). Activity theory as a framework for project work in learning environments. *Educational Technology, 40*(2), 33-37.

Jones, A. T., & Simon, S. A. (1991). Strategies for educational change: The work of the OPENS project in the context of a new national curriculum for science. *Science and Mathematics Education (SAME) Papers*, 15-35.

Khoo, E. G. L. (2009). *Developing an online learning community: A strategy for improving lecturer and student learning experiences.* Unpublished doctoral dissertation (in preparation), University of Waikato, Hamilton, New Zealand.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511815355

Luppicini, R. (2007). *Online learning communities*. Charlotte, NC: Information Age.

Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for the online classroom*. San Francisco: Jossey Bass.

Rogoff, B. (1994). Developing understanding of the idea of communities of learners. *Mind, culture, and activity, 1*(4), 209-229.

Schwier, R. (1999). Turning learning environments into learning communities. In B. Collis & R. Oliver (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 1999 (*pp. 282-286). Chesapeake, VA: AACE.

Smith, M. E., Teemant, A., & Pinnegar, S. (2004). Principles and practices of sociocultural assessment: Foundations for effective strategies for linguistically diverse classrooms. *Multicultural Perspectives, 6*(2), 38-46. doi: 10.1207/s15327892mcp0602_8

Authors: Elaine Khoo, CSTER, University of Waikato, Private Bag 3105, Hamilton 3216, New Zealand. Email: eglk2@waikato.ac.nz

Michael Forret, Maths, Science and Technology Education, School of Education, University of Waikato, Private Bag 3105, Hamilton 3216, New Zealand. Email: mforret@waikato.ac.nz

Bronwen Cowie, Wilf Malcolm Institute of Educational Research, School of Education, University of Waikato, Private Bag 3105, Hamilton 3216, New Zealand. Email: bcowie@waikato.ac.nz

Please cite as: Khoo, E., Forret, M., & Cowie, B. (2009). Developing an online learning community: A model for enhancing lecturer and student learning experiences. In *Same places, different spaces. Proceedings ascilite Auckland 2009*. https://doi.org/10.14742/apubs.2009.2274