DESIGNING AN ONLINE LEARNING COMMUNITY AMONG TEACHER EDUCATORS

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ABSTRACT

Online course delivery is rapidly growing among educational institutions all over the world, especially in Open and Distance Learning institutions. The frequent criticisms on distance education for having only limited interactions between teachers and students as opposed to traditional face to face teaching can be significantly minimized with the increased use of online methods, due to its unique instructional capabilities. Online learning provides ample opportunities for students learning at a distance to constantly interact with their teachers as well as peers, sharing experiences and working collaboratively. The creation of a sense of social presence is essential to establish a collaborative online learning environment, as it is a most important factor that helps people actively collaborate, thus increasing a sense of belonging to the learning community. The Faculty of Education of the Open University of Sri Lanka offered the online course, "Teacher Educator as an Educational Technologist" in December 2007, using the learning management system Moodle. The course was designed using a collaborative learning model, allowing adequate opportunities for the distant learners to actively engage in their learning process, engaging in a number of learning and assessment tasks with the support of learning resources and instructor guidance, while collaborating and sharing experiences among each other, mainly through discussion forums. Using the case study approach, an investigation was carried out to find out the specific strategies and techniques adopted by designers, instructors and students in enhancing community building among the participants in the online learning environment. It further explored the impact of community building on the distant learners, who were also novices to online learning. This paper discusses the development process in the building of an online learning community and emphasizes on the roles of designers, teachers, and learners.

Keywords: collaborative learning, learning environment, online learning community.

Online course delivery is rapidly growing among educational institutions all over the world, especially in Open and Distance Learning (ODL) institutions. Online environments provide access to a range of resources, learning tools and communication facilities to learners. Online learning also provides ample opportunities for students learning at a distance to constantly interact with their teachers as well as peers, sharing experiences and working collaboratively (Bates & Pool, 2003). Thus, the frequent criticisms on distance education for having only limited interactions between teachers and students as opposed to traditional face to face teaching can be significantly minimized with the increased use of online methods, due to its unique instructional capabilities.

The Faculty of Education of the Open University of Sri Lanka offered the online course, "Teacher Educator as an Educational Technologist" in December 2007, using the learning management system, Moodle. The course was designed using a collaborative learning model, allowing adequate opportunities for the distant learners to actively engage in their learning process. The learners were directed towards engaging in a number of learning and assessment tasks with the support of learning resources and instructor guidance, while collaborating and sharing experiences among each other, mainly through discussion forums. Using the case study approach, an investigation was carried out to find out the specific strategies and techniques adopted by designers, online tutors and online learners in enhancing community building among the participants in the online learning environment. It further explored the impact of community building on the distant learners, who were also novices to online learning. This paper discusses the development process in the building of an online learning community and emphasizes on the roles of designers, tutors, and learners.

THEORETICAL BACKGROUND

Professional development should facilitate engagement of each educator in a collaborative dialogue with other educators to broaden their knowledge and expertise needed. Encouraging learner collaboration in professional development programmes contributes to enhance quality of teacher education. Especially in most distance education systems where opportunities for students to meet frequently are limited by time, distance or resources, different types of student support groups, which may or may not include a teacher, are included to facilitate learner interaction (Robertshaw, 2000).

A list of good principles to be applied in a distance education professional development programme have been identified as, making students well-informed of the courses, maintaining good teacher-learner contact, applying an active learning process, encouraging peer-supported learning, providing regular feedback, allowing for appropriate pacing of learning through different tools and for mapping learning pathways to suit different learning styles   (Dhanarajan, 2004). Further, adoption of collaborative learning designs is identified as an indicator of quality teacher education (Naidu, 2004). Integration of cooperative and collaborative learning practices into the teaching and learning transactions in a professional development programme will thus benefit the learners in a significant way.

Technology can be effectively used to support interaction and socialization among individuals, enhancing collaboration. Computer-based conferencing could be both synchronous and non-synchronous and these can support discussions, debates and collaborative efforts among groups of people who are at a distance, and it also enables learners to reflect on their ideas or responses before making them (Jonassen, Peck & Wilson, 1999)

Online learning is considered better achieved through interactivity among learners, rather than learning alone (Kawachi, 2003). Collaborative learning proceeds through empathetic discovery of new knowledge co-constructed by the participants, resulting in all participants becoming owners and knowers of the new knowledge (Kawachi, 2003). Hence, collaborative learning promotes the development of a learning community where learners share common interests

and work together toward their common goals. An online learning community is a common place on the Internet that addresses the learning needs of its members through proactive and collaborative partnerships. These can be either e-learning communities where groups of people are connected solely via technology and all interactions occur over the Internet and promote virtual collaboration mainly through facilitated discussions boards, or blended learning communities where online learning and face-to-face meetings are integrated (Kaplan,2002). In an online community, learners mainly communicate via textual discussion (synchronous or asynchronous), audio, video, or other Internet-supported devices. Learning communities can be fostered by having the learners research and share information in the pursuit of a meaningful, consequential task (Jonassen, Peck, & Wilson, 1999).

Social presence, or the ability of participants to present themselves as learning environment, is considered to be an element of interpersonal communication between learners (Gunawardena & Zittle, 1997). It is identified as an important factor that helps people actively collaborate in an online learning environment. The creation of a sense of social presence is essential to establish a collaborative online learning environment, as it is a most collaborate, thus increasing a sense of belonging to the learning community (Gunawardena, 2004).

METHODS
The Faculty of Education of the Open University of Sri Lanka (OUSL) offers professional development programmes for personnel in the field of education using open and distance learning techniques. "Teacher Educator as an Educational Technologist" is one of the courses in a practitioner-oriented professional development program for teacher educators. Master of Arts in Teacher Education- International (MATE-1) program. The main objective of this course is to develop competencies among teachers/teacher educators to design, develop, implement and evaluate appropriate educational technologies. This was developed as an (LMS) Moodle, and is offered as a stand-alone competencies in the use of real persons in an online important factor that helps people actively online course, using the Learning Management System course to practicing teachers and teacher educators who desire to develop their educational technology.

This investigation was conducted as a case study of the first cohort of students in this online course. It focused on two main research questions: What are the strategies and techniques adopted by designers of online tutors and online learners to enhance community building? What is the impact of community building among the distance learners? The participants were 25 students enrolled in the course, who were either teacher educators or teachers. Descriptive data was collected during the six-month period of the course duration, December 2007 to June, 2008, using multiple methods such as, implementing an online questionnaire, content analysis of students' postings recorded in the Moodle LMS, and student reflections made in their online learning portfolios.

RESULTS AND DISCUSSION

Background information about participants
The 25 participants of the study included 10 male students and 15 female students. All teachers or teacher educators were full time working in educational institutions at different parts of the country. A majority were of the age group 41-50, and with more than 10 years of professional experience in the field of education. However there were also a smaller percentage of students in the age group 31-40, with less than 5 years of professional experience. All of them had claimed either excellent or good in their English language skills, while a majority claimed as proficient in using the computer and the Internet. Online learning was a novel experience to all the participants.

Strategies and techniques adopted by designers to enhance community building
A unique pedagogical design, Scenario-Based Learning (SBL), has been adopted in this online course. In this approach, the learners are presented with authentic learning. Scenarios where students are required to assume a key role that they might actually perform in real life, and engage in challenging activities leading to achievement of the desired learning outcomes. (see Karunanayaka, Lekamge, Gunawardena, Naidu, & Menon, 2007; Naidu, Menon, Gunawardena, Lekamge, & Karunanayaka, 2005). Within this collaborative learning design, a very supportive online learning environment was created in the Moodle LMS, utilizing its facilities to create a conducive learning environment to the distant learners.

The course was designed in such a way that the students were directed and encouraged towards self-initiated learning, rather than delivery of content. The content area was structured into five main areas in a topic-wise manner, including an introduction to the course, and four main topics in the subject matter content. Under each area, different types of activities were spread out on a weekly-basis, for 24 weeks, together with supportive learning resources.

Each learning area consist of: Announcements, Outline, Instructions, Learning Scenario, Activities, Readings and Web Resources. This format was kept consistent in all learning areas, thus making it user-friendly for the novice online learners. The learning activities included discussion forum, quizzes and crossword puzzles. These activities were leading the students to the compulsory assessment at the end of each main topic. In addition to the main content area, there were several other areas such as, Course Overview, Learner Support, Student Input and Social Area. Students were also requested to maintain their online Learning Portfolios, constantly reflecting on their learning experiences. As such, the course was designed to enhance exploration, collaboration and reflection among the online learners.

Discussion Forum was the main type of online activity used in this course. These included tutor-moderated threaded discussions with the whole group on various content-related issues as well as smaller-group activities such as online debate and storyboard competition. The "Announcements" area was also kept as a discussion forum, so that the students could respond to the announcements made by the instructors. The learner support area including "Help Wanted/Help Given" discussion forum allowed students to clarify problems and help

each other, while the social area, "Virtual Canteen", enabled students to engage in non-course related social discussions.

The opportunity to engage in different discussion fora was identified as an advantage by many participants.

> "The discussion forum is one of the strengths that facilitates the learners to gain a vast knowledge through discussions."

> "Posting our ideas to the main forum and getting feedback from the teachers and colleagues really helped me in my learning."

> "As I'm working with senior colleagues I'm getting lot of experiences about the field as well as life. At the same time I feel through this kind of learning we can develop good attitudes, for instance sharing, discussing, interacting, etc."

> "At the same time most important thing is we have opportunities to discuss many topics even outside the course through "virtual canteen"- - Thus we are able to develop our social skills, communication skills etc."

As the above views clearly reflect the participants appreciated the provision of the asynchronous communication facility - discussion forum, in the online learning environment as it allows learner-instructor interactions, as well as learner-learner interactions leading to a deeper and more rational exchange of views. Further, these discussions provide an opportunity for students to appreciate multiple perspectives of an issue, and to reflect on their own opinions as well as others'.

The course design focused students' attention on problem-solving and critical reflection promoting a more learner-centered focus and encouraging collaboration among learners, by way of sharing ideas, experiences and resources. The unique collaborative learning design adopted in this course, shifting away from the traditional content-driven approach and moving towards a more learner-oriented approach, thus enhanced community building among the online learners.

Strategies and techniques adopted by online tutors to enhance community building
One major aim of introducing the online learning environment to the distant learners was to facilitate their learning process through human interactions online, even though they were not meeting face-to-face. Initially, the Moodle LMS was introduced to the students at an orientation workshop, in which a hands-on training session was conducted on how, to use this facility, as this was a novel experience for all students. During this session, students introduced themselves to each other online and engaged in an online discussion, getting familiarized with the online learning environment and the new learning process. Except for another hands-on workshop on multimedia production held in mid-course, all the other activities and interactions occurred totally online, under the guidance of the online tutors. Thus, the tutors had to play a major role facilitating the learning process throughout.

During the course of study, several threaded discussions were conducted as learning activities, initiated and moderated by the tutors. All these activities were related with and leading to the compulsory assignments. A percentage of the marks allocation for assignments was given for active involvement of students in the online discussions, thus motivating and encouraging their participation. Each discussion started with a problem posed by the tutor, with supportive online resources provided for reference, and students were given clear guidelines on their task. They were required to engage in each discussion for about two weeks, with tutor interventions whenever necessary.

In addition to the above, several other discussions also took place. In the "Announcements" area students constantly responded to the announcements made by the tutors. The "Help Wanted/Help Given" discussion area, was often used by students to clarify their doubts and some times a peer student would respond and help, even before the instructor responds.

The participants highly appreciated for obtaining a quick feedback from the tutor and peer for their postings in the discussion forum. At the beginning, the participation in the discussion was limited to a few students, but gradually the participation greatly increased. Some students mentioned that even though initially they were not quite confident and comfortable in participating in online discussions, they were motivated and encouraged to participate after seeing the responses given by tutors.

> "I was amazed to see the immediate feedback, from the Course Coordinators and fellow on-liners on the talking points."

> "Actually I feel this course is very good as I can put forward my ideas, opinions and get feed back. From this week I relieved from guilty feelings or some confusions as I'm actively participating. I have confidence to certain extent and when I see others' comments and ideas I'm being encouraged."

> "I was able to rectify my mistakes due to the energetic responses received - -"

> "It is very pleasing to see some of my queries to different forums answered readily which is very helpful for me to overcome my problems and to go forward."

> "Ample help was given to improve collaborative skills by encouraging to help each other and make progress together."

One student who was very actively participating and contributing to the online activities was even disappointed when once he did not receive the immediate feedback he had expected from the tutors.

> "I am a little disappointed to see no feedback for my latest concept map sent to the forum. I have been waiting to see comments from my tutors and colleagues, hence to improve my work further. Sometimes I feel that I am overacting because of my constant contribution to the online learning. Anyway, I like this mode of learning and it best suits

me, I guess. I am expecting more productive comments from my colleagues for me to continue this course successfully."

The above excerpts indicate how the online learners valued human interactions during their learning process.

Strategies and techniques adopted by students to enhance community building
Analysis of the textual interactions in various discussion forum provided evidence of strategies adopted by students themselves towards collaborative learning that enhanced community building among them. They have used various mechanisms of collaborative learning during discussions such as self-explanation, questioning and replying, requesting and providing help, agreement and disagreement, suggestions, appreciations, encouragements and social grounding, as indicated by the following excerpts:

Self explanation:
"Friends, it took me a little time to get the real meaning of concept map. I think it is very important in teaching learning process - -"

Questioning/Replying:
"Dear all, I made changes into my concept map. What about your ideas?"

Requesting/Providing help:
"Thanks for posting such valuable information. It was very educative and was helpful in drawing up my concept map."

Agreement / Disagreement:
"Hi U, I agree with your statements."

Suggestion/ Qualify:
"Hi D, You have done a good job! I'll give you another idea"

Appreciation/Encouragement:
"Thanks for posting such valuable information. It was very educative and was helpful in drawing up my concept map."

"Your selection of topic is good and interesting. Congrats! There are other techniques also where you could use as solutions. Good Luck."

Social Grounding:
"Hi S, It is nice to see your comments."
"Sorry in joining in late in the discussion."

These postings clearly indicated mechanisms of collaborative learning adopted by the learners leading to community formation.

It was interesting to note how the students addressed to each other during online group discussions at the beginning and how it changed after sometime. Initially they were using a very formal tone, some times even addressing individual peers by their full names. When addressing the group also it was formal such as "Dear colleagues" or "Dear Friends". However, after few weeks, many were addressing freely and in a very friendly manner to each other using either their first names, or shortened form of names or even nicknames. Within the small groups, the team members were addressed very informally as "Hi friends", "Hello Onliners" and "Hey guys!"

The engagement in small group activities that were of a competitive nature, such as the online debate and the storyboard competition had created an excitement and enjoyment among the small groups, as one student claimed.

> "I was so excited in participating in the online debate as a team member."

These competitive activities also affected in bonding the members together as a team to face the opposing team. During the discussions that occurred in relation to these activities the conversations clearly indicated the social bonding that was developing among the members.

> "Dear Leader, I am very proud of you for taking the responsibility of commencing the debate."
> "Our Ys, Shall we divide our group work among members ... We can do cooperatively. While that we'll exchange ideas for each page that we prepare. I think it's the most convenient way. What do u think?"

Due to the keenness in winning the online competition, the team leaders and some other active members were constantly communicating with each other not only through the discussion forum, but also using instant messaging, e-mail and even phoning, trying to make the inactive participants in the group also participate.

Further, they were enjoying these activities even outside the respective forum by referring to it and challenging each other at other forum such as "Help wanted". Some examples of these are given below, which clearly indicate the close relationship that was developing among the group.

> "Hi my opposing team members, I am very sorry for you, for being in the going to be loosing side." "Dear U, No response still from your members???? does it mean that except you the others are agreeing with me is it??"

> "Hi I, Do not build castles in the air. We know when and how to defend ourselves" "I see you people are having fun. Great!"

> "Wow! both of ur really active. Good example for us! Good Luck."

In addition to the informal and very friendly tone of the conversations that has developed, many learners were using emoticons such as smiley faces and sad faces to express their emotions, along with their postings. These too indicated the social grounding of conversations.

The discussion forum "Virtual Canteen" was used by the learners to engage in many social discussions. They initially used this area to send greetings to each other during festivals of different nationalities in the group (Sinhala, Tamil and Muslim), and to inform personal information such as wedding of a colleague or a funeral. Some students were regularly posting messages of common interest to the group including educative notices, facts, tips and jokes. Some of the topics initiated by students in the "Virtual Canteen" among many others are, "What's up there?", "Greetings to all of you", "Global warming", "Man on Mars", "P weds" and "Tips for better life". This social area also contributed immensely to build up the social relationships among the group.

The impact of community building among the distance learners
Student reflections on their experience in online learning revealed various impacts it had had upon them, mainly in supporting their learning. Most students stated that the engagement in the collaborative online learning activities, was very advantageous. The ability to share ideas and resources, see from different viewpoints and making conclusions through a mutual discussion were found to be very supportive for students. Further, this facility was appreciated by students as it also enabled building up a close relationship as a group, who were learning at a distance, coming from different parts of the country, and from different communities.

> "The discussions made me think deeply"

> "It helped to build up a good relationship with the course participants and staff." "It changed our attitudes by sharing knowledge with others."

When the students met each other at the hands-on workshop at OUSL during mid-course, after the engagement in several online discussions, they were very excited to see and meet personally each other, with whom they have developed a close relationship online.

> "It was thrilling and a learning experience as well. I was able to meet the online learners in person. It was very pleasing to see them as they were familiar to me only through online earlier."

This clearly indicates the impact of community building that had occurred during the online activities. Further, increased self-confidence as professionals was another impact on students.

> "Improves my self-esteem and confidence and I am getting more motivated." "I feel as I proceed with the course, that I'm becoming more and more mature."

Some reflections of the students at the beginning were as follows:

> "At the beginning... it was like in the middle of a dark, thick jungle." "During the first. week I was in the mist finding my way - - -"

> "Actually in the first week I did not have a clear idea about how to follow the course."

Some reflections of students nearing the end of the course are as follows:

> "Now I am addicted to this course!"

> "It is sad to see that I am at the end of the course and I am going to miss my online friends and resource persons shortly. Anyway it is part of life and hope for the best."

> "I am have a blend of contrastive feelings of happiness and a grief. Happiness for the achievements that I have got from the course. The grief for the departing from those challenging, new experience of learning."

Analysis of participants' reflections made at the very beginning and after three months clearly indicate how this novel approach of learning has affected in making them confident and motivating to engage in online learning.

The student reflections also revealed that the social presence of peers online enabled emotional support among them and feeling of a closer connection throughout this process, establishing social relationships.

> "I felt I was really personally meeting them. I really liked that - - "When I read his problems, I felt as if it was mine."

Thus the social presence in the online learning activity has clearly affected in motivating student participation in the collaborative learning activities and inculcating a sense of belonging to the same learning community.

CONCLUSION
The online course, "Teacher Educator as an Educational Technologist" was designed to support distant learners to interact with the subject matter content, with each other and with the instructor. The interactive and collaborative course design, role played by the online tutors and the various strategies adopted by the online learners have contributed in building an online learning community among the participants.

The structuring of the course content, contextualizing learning and assessment activities, in-built flexibility in learning which allowed learners themselves to be in control in the learning process and take responsibility for their own learning are some key strategies adopted in the designing of the course, which fostered interactivity and knowledge building among the learners as a group. The requirement to engage in collaborative learning activities led to more

interactions among students and thus enhanced knowledge construction through a process of negotiating meanings with others, supporting the social-constructivist view of learning.

The strategies adopted by the online tutors such as providing quick responses, personalized guidance and help provided to students to actively engage in online activities, using active questioning to prompt and encourage meaningful discussion as well as using encouraging and motivating words had helped learners to participate in online discussions with confidence. As a result of this experience, students were gaining confidence in self-regulated and reflective learning.

The online learners have adopted several mechanisms of collaborative learning during discussions such as self-explanation, questioning and replying, requesting and providing help, agreement and disagreement, suggestions, appreciations, encouragements and social grounding that enhanced community building among them. They have also used various strategies such as use of informal language and friendly tone, and also emoticons to express their emotions. A sense of achievement was claimed by the learners once the online course activities were completed.

The social presence of peers and instructor in the online learning environment greatly contributed in increasing students' perceived feelings of connection with others. Especially for the isolated learners in the distance mode, where frequent student interaction is limited, facilitation of collaboration via carefully designed learning activities, and online support was very useful. Collaborative learning among learners was highly enhanced by social presence, and resulted in creating a closely-bonded learning community. The role of the instructor as a facilitator of building up social presence in an online learning environment is very important.

Online mode of delivery can be effectively used to enhance student learning, by designing an interactive online learning environment grounded in pedagogy. By adapting a structure of interaction that is collaborative in nature, and placing a greater emphasis on the quality of the interactions that occur, a successful learning experience for learners could be ensured. A sense of learning community can be instilled and promoted, especially in especially in an open and distance learning context, through encouraging collaborative online learning. The roles of online course designers, tutors and learners are crucial in successful community building, online.

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