

A FRAMEWORK FOR THE DEVELOPMENT OF ONLINE LEARNING COMMUNITIES

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ABSTRACT

Online learning communities are often part and parcel of blended learning pedagogies in both traditional and distance learning institutions to enhance learning. One of the popular models to help create these communities is the Community of Inquiry (CoI) model, designed to help learners become engaged with their course mates and tutors online. The goal is to create a community where learners collaboratively construct meaningful knowledge. It is believed that the three types of presence (cognitive, social and teaching) specified in the model will create an appropriate environment for more matured open distance learners. The CoI model was selected for a study at the Open University Malaysia (OUM) to determine the effectiveness of its current online learning implementation. Forums from 20 courses were analysed by a group of academicians. At the end of the study, it was believed that the CoI model could be used as a framework to implement its online learning, particularly in developing a community of learners as a means to enhance their understanding of the subject matter. Following the acceptance by the OUM academic board, the CoI model was introduced during the recent tutor training.

Introduction

As an open and distance learning institution, it is imperative that OUM delivers quality education to all its students. When the university first took in its batch of students in 2001, the Internet was popular, available in most parts of the country and was considered affordable. Special rates were available for students. Hence, these were enough reasons to support OUM's decision to include online or e-learning as part of its pedagogical blend. Online learning at OUM primarily includes the use of the forum facilities in the learning management system to support discussions among learners and between learners and their tutor. Online learning is one of the three modes of OUM's blended learning pedagogies. The other two are face-to-face and self-managed learning. Face-to-face learning makes up eight percent of the blend whereas online learning is 12 percent of the total blend. Eighty percent of the blend is for self-managed learning. Hence, online learning is the second most important element of the blend.

Online learning at OUM takes place in the form of online discussion forums comprising a series of interactions in an asynchronous communication medium. As a means to support learning during the two weeks in between face-

to-face tutorials, tutors are expected to be available online to respond to questions posted by learners within two working days. In addition, learners have also been requested to contribute to the postings they see as a way to enrich the discussion. Both learners and tutors are advised to visit the forums three to four times a week. The goal is to develop a community of learners who will collaborate with each other to construct meaningful learning. To ensure that learners take online learning seriously, the university allocates five percent of the course marks to reward the learner's active participation and posting of quality messages. Being a relatively new mode of learning, the development of online learning was initially a rather challenging task. Tutors were trained, guidelines were given but it was observed that while there were tutors who often went online, there were others who rarely visited the forums. It was the same with students. There were students who were very active in the forums but there were those who were not. It was thus timely that the online interactions were examined to see the pattern or type of interactions and to determine the effectiveness of the current mode of implementation and, if necessary, to take corrective action.

Literature Review

About twenty years ago, that is, prior to the invention of the World Wide Web, discussions through computer conferencing among members of special interest groups (SIGs) were common. This was where members with common interests gathered online to help each other gain new knowledge. For example, they could be members exploring various alternative forms of assessment in higher education or about using new technology in the classroom. Members contributed to the SIG forum by voicing their opinions, giving suggestions or sharing their experiences, knowledge and resources. Over a period of time, the group would have gained a substantial amount of learning or at least shared interesting insights, especially if they were from different corners of the globe.

Today, computer conferencing is replaced by Web-based forums that are made available through learning management systems. Hoping to emulate the early success with computer conferencing, online forums are commonly used in distance learning institutions to support and enhance learning. It has been used in some of the larger distance learning institutions such as the Open University in the United Kingdom and the Athabasca University in Canada and have been incorporated by other similar institutions in Asia. Since its introduction to support learning in higher education, there has been continuous debate about how learners should be engaged, the roles and responsibilities of the instructor and the types of learning outcomes that can be anticipated (Rourke & Kanuka, 2007).

According to Li (2004), it is important to remember that a successful online forum is based on the development of a knowledge building community. Several strategies to promote collaborative knowledge building need to be identified. This includes providing a platform for social interaction and opportunities for higher-order thinking such as reflection and synthesizing. Forums should establish a friendly, free, safe and open online environment that

encourages learners to log in, feel welcomed and share a bond that is unique to the group. The bond will make the group function like a learning community instead of a collection of individual students.

The online facilitator or moderator of the forums need to play an effective role in moderating the forums so that learners feel safe and encouraged to contribute to the discussions and feel satisfied to use it as a learning medium. Collison, Elbaum, Haavind and Tinker (2000) stated that there are three principles of effective moderating. The first is that moderating takes place in both a professional and a social context. The second principle is that the style of “guide on the side” is most appropriate for leading an online learning community. Finally, the third principle is that online moderation is a craft that has general principles and strategies that can be learned. Generally, an online community is formed only if its members are active and posting. Hence, online forum tutors, facilitators or moderators will need to be equipped with the sufficient knowledge, appropriate skills and the right attitude to be effective in developing online communities of learning. It should be noted that these can be learned. As Li asserted the facilitator of the forum needs to have a balanced pattern of appearances in the discussion forum. In other words, the tutor should be present at opportune moments and should be very careful not to jump into any discussion too fast or too often or appear to be controlling the discussion.

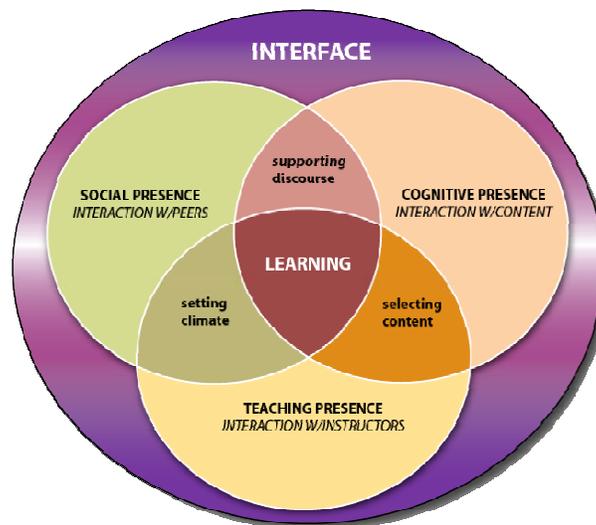


Figure 1: Community of inquiry model
Source: Garrison, Anderson and Archer (2000)

As proposed by Garrison, Anderson and Archer (2000), the Community of Inquiry (CoI) model (see Figure 1) will guide the practice of online learning. The CoI framework was generated from the literature and experiences of the authors. The COI model is based on a few characteristics that are inquiry-based. Firstly, it is question-driven whereby tutors probe learners with thought-provoking and stimulating questions. Secondly, learners are involved in a critical discourse where they learn how to define and propose reasonable solutions to issues. Thirdly, learners gather information, thus enhancing their research skills to support their postings. There are three types of presence in the CoI model. These are social, cognitive and teaching. The importance of creating a social presence is to ensure that there is open communication, group cohesion and that learners feel free and encouraged to express, collaborate and bond with the group. Cognitive presence on the other hand triggers learning events and turn them into opportunities for learners to explore, integrate and reach a resolution. Learners should have a sense of puzzlement, be triggered to exchange information, connect ideas together and apply new ideas. Finally, teaching presence is achieved when the online tutor or e-moderator is able to design and organize the forums in such as way that it facilitates discourse based on direct instruction. Here, the online tutor sets the curriculum and methodology, encourages the sharing of personal meaning and ensures that the discussion stays focused and on track towards achieving the learning outcomes (Garrison & Vaughn, 2008).

Anderson & Elloumi (2004) added that assessment is an important factor for successful online learning. Typically, online learning receives 10 to 25 percent of the course marks. Learners should know how they will be evaluated to the extent that rubrics are provided to them prior to their participation in the online discussion forums. The online tutors also should be informed of how their performance in supporting the learners in the forums will be evaluated.

THE STUDY

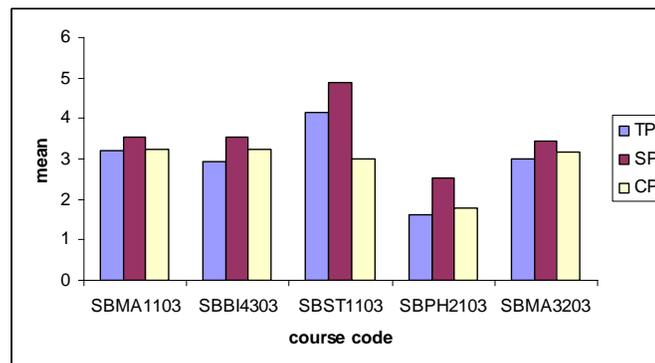
The study was organized by the Centre for Quality Management and Research and Innovation (CQMRI) as part of its role to improve quality in learning and teaching at the university. Twenty courses were selected for the study. The selection was based on the courses identified by the respective faculty. Typically, these courses were those that were frequently offered and had been offered at least thrice and were not about to be discontinued. From each of the five courses at least six of the most prolific forums were selected to be analysed. The assumption was that tutors in the most prolific forums would have demonstrated exemplary roles. In courses where the forums were not prolific, as many as 16 forums were selected. A total of 137 forums from a total of 20 courses were analysed to see how the more prolific tutors (in terms of number of postings) irrespective of how long they have been tutoring at OUM, supported the development of online communities of learning.

To help with the analysis, 57 subject matter experts were brought to a two-day workshop held from Friday evening until Sunday lunch time. The workshop was facilitated by the main author who introduced the objectives of the workshop, the study, the CoI model as well as the methodology. Instruments to help with the analysis were also provided. The main instrument used a reporting tool where ratings and observations of the forum interactions were recorded to detect teaching presence, social presence and cognitive presence. The forum interactions were examined either through hard or soft copies or both. Each course was evaluated by three subject matter experts except in the case of three courses where only two were available. The subject matter experts were grouped together in teams. The analysis of the forum interactions were done individually and then cross-checked by other team members to ensure objectivity. Each team submitted their forms at the end of the study. The ratings for each presence were averaged to determine the amount of presence (see next section).

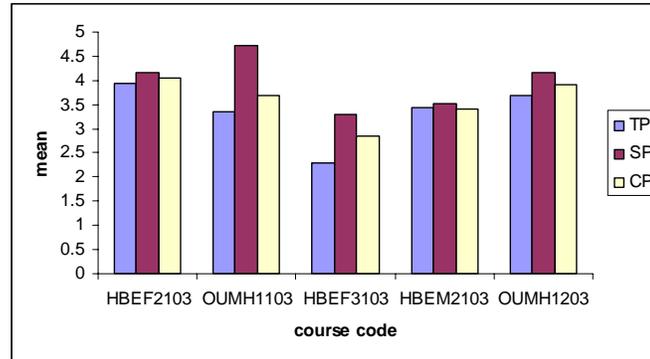
FINDINGS AND DISCUSSION

The graphs below show the analysis of the three types of presence in the 20 forums according to faculty. It can be generalized that social presence is predominant in all forums, followed by cognitive presence and teaching presence. In other words, from the courses examined forums tended to exhibit better levels of social and cognitive presence and lower levels of teaching presence. The group observed that many tutors created warm and friendly environments for their learners. However, there were tutors who were sporadic in their postings, hence creating a lesser “teaching” presence. This leads one to think that tutors need to be more equipped with how to create a greater teaching presence online. This will require tutors to be capable of setting the climate and at the same time selecting the right content for discussion. This has implication on future tutor training.

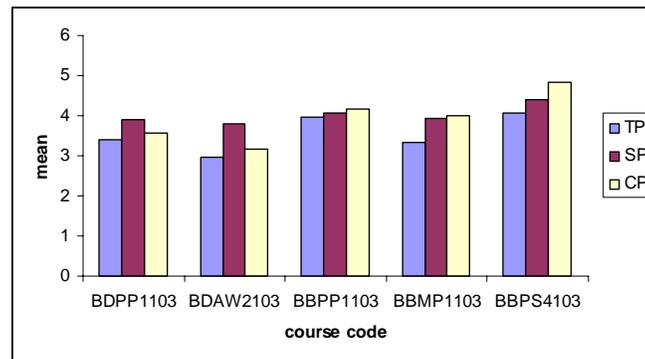
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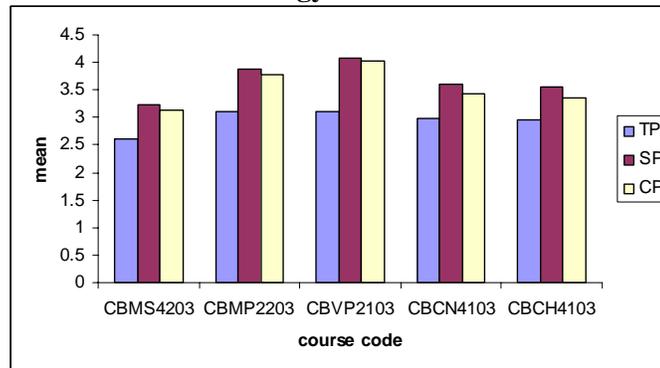
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In addition, it was found that most forums had learners posting questions for the sake of posting and that tutors were responding to the questions individually. In many cases, the questions posted were those whose answers could be easily found in the modules distributed to learners. In addition, some of the questions were found to be repeatedly asked, leading to the suspicion that learners were merely

repeating each other. Hence, a learning community was not so well-developed. It was rare to find a tutor asking a question to provoke critical thinking among learners. This would have led to the desired form of discourse among learners and may add to the interest and depth to the learning experience.

Future Implementation of Online Learning at OUM

At OUM, tutors were initially expected to be available to respond to questions posted by learners as a way to support their learning and understanding of the subject matter. It is now timely that OUM focuses on the development of an online community of learners. Tutors should not only be able to manage the learners online but have the skills to develop a community of learners engaged in various forms of discourse that require higher order thinking. The learning derived during the discussions should be meaningful, constructive and deep.

The implementation of the CoI model as a framework is believed to help OUM move forward in terms of learner support. The effective implementation of the model is expected to lead to better and more satisfying interactions in the online forums. To help tutors ensure that there are three types of presence: social, cognitive and teaching, tutors have been given some guidelines on how to be effective. Generally, for social presence, tutors need to establish a warm, secure and comfortable environment for learners to look forward to being part of. The learner should feel welcomed and that his postings will be valued and respected. For cognitive presence, the tutor is asked to post two questions before each tutorial to get their learners to think about them, to contribute further to the discussion and for the tutor to finally summarise the discussions to form meaning. For teaching presence, the tutor is expected to instruct where necessary; establishing the netiquette rules or structuring the forums to ensure a good discussion. He should ensure that the learners stay focused on the discussions and not go off track. Table 2 illustrates the steps for tutors to follow.

Table 2: Steps in Managing Online Discussion Forums

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|---------------|---|
| Step 1 | Provide clear guidelines for participation to learners, including tutor expectations, rules of conduct and examples of what constitutes adequate participation. |
| Step 2 | Begin by posting a welcome message to your learners. Introduce yourself and provide a brief introduction to the course and your commitment to the learners. |
| Step 3 | Encourage your learners to do the same. |
| Step 4 | Acknowledge individual discussion contributions by learners so that they feel heard. |

| | |
|---------------|--|
| Step 5 | Start the discussion in each folder (T1, T2, T3, T4 and T5) by posting two very relevant questions based on the module before every face-to-face tutorial. |
| Step 6 | Monitor the discussion to keep learners focused on the topic. |
| Step 7 | Monitor the quality and regularity of the postings and if individual learners appear not to participate, post messages that are off-topic or are not substantive, communicate with them privately. |
| Step 8 | Summarise the discourse to the questions given within each folder (T1, T2, T3, T4 and T5). |

Source: OUM Tutor's Handbook

On how to create a warm and welcoming environment, the example below was included (see Figure 2). Tutors were reminded that online learning should benefit learners. Their role is to make their presence felt by leading and monitoring the forums to ensure a healthy discussion of the topics posted. Tutors were suggested to post two questions on topics related to the learning outcomes stated in the print module prior to each tutorial. Learners were expected to respond to the questions and respond to their course mates' postings with the aim of taking the discussion to a higher cognitive level. The latter could be led by the tutor to ensure higher level discussions.

Tutors need to ensure that learners feel secure when posting in that nothing posted would bring in negative remarks or ridiculed in any way. Respect for each others opinions are expected to be maintained at all times. Meanwhile, tutors were expected to help learners stay focused on the discussions and should the discussions deviate, they were to bring the discussions back on track. Should any subject matter content need clarification, tutors were expected to assist. This may be accomplished by pointing learners to useful readings of the concept or to explain it further online or during the face-to-face tutorials.

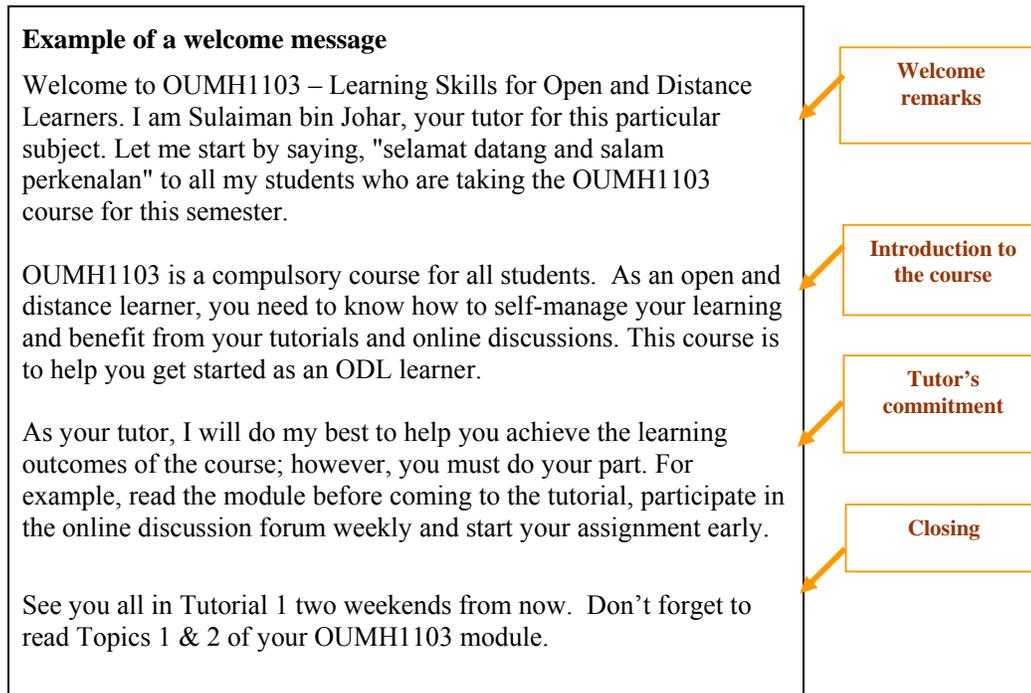


Figure 2: Example of a welcome message from the tutor

Concluding Remarks

The objective of the study was initially to determine the effectiveness of the current implementation of online learning. The CoI model was used to assess the interactions in the forms as it is believed to be a suitable framework to develop a community of learners. The application of the model allowed OUM to assess the gap between the current and the desired practice. At the conclusion of the study, it was realized that the CoI model could indeed be the basis for an appropriate framework for OUM forums. It is believed that the model will help ensure meaningful collaborative learning. The adoption of the model was proposed by CQMRI when reporting the findings to the OUM Academic Board, thereby improving the previous framework which was based on frequency and quality of postings. It was next incorporated into the new OUM Tutor's Handbook for the re-training of tutors. It is recommended that another study to assess the implementation of the CoI framework be conducted to determine its contribution in enhancing the effectiveness of online learning at OUM.

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