BUILDING ONLINE LEARNING COMMUNITY IN SYNCHRONOUS AND ASYNCHRONOUS LEARNING MODELS

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Abstract

This study aimed to describe the teachers' efforts in building online learning community (OLC) in synchronous and asynchronous learning models. This study employed a qualitative case study involving four teachers from 2 universities in Central Java and East Java, Indonesia. The data of this study were garnered through in-depth interviews and, then, were analyzed narratively. The findings revealed that OLC was reflected in three elements, i.e., cognitive presence, social presence, and teaching presence (Cleveland-Innes et al., 2018). To build OLC in both synchronous and asynchronous learning models, the teachers employed several strategies, e.g., doing an exploration phase through information exchanges, connecting ideas, and applying new ideas (cognitive presence), opening two-way communication and encouraging collaboration (social presence), explaining instructional materials and focusing discussion, and doing reflection and checking for students' understanding (teaching presence). The difference between OLC in synchronous and asynchronous learning models lies in the teaching mode. In the synchronous learning model, the OLC was built through video conferences, such as Zoom meetings or Google Meet. Meanwhile, the asynchronous learning model built the OLC through Moodle or Google Classroom and/or WhatsApp and Telegram discussion. This study concludes that teachers' pedagogical competence is pivotal in building OLC in synchronous and asynchronous learning models.

Keywords: Asynchronous and Synchronous Learning; Cognitive Presence, Online Learning Community (OLC); Social Presence, Teaching Presence

INTRODUCTION

Important forms of cooperation and communication have been simpler to carry out as a result of the proliferation of Internet and technologies based on the World Wide Web. Because of this, the growth of online connections has been encouraged, and accessibility to communities where such interaction is feasible has been improved. As a result, the term 'online learning community' (OLC) was invented to represent the expected attributes of a learning community developed through the use of World Wide Web-based technology. OLC is a physical entity that arose from the development of a shared community and the identities of its members in combination with the progression of the community as a whole toward a common educational goal. Because of the multiple benefits that come with the formation of learning communities, many people believe that their establishment is critical to attaining online learning goals (Harasim, 2002; Palloff & Pratt, 1999). The development of learning communities as a means to facilitate teaching and learning in online environments is supported by recent research and practice in successful online pedagogy (Delmas, 2017; Khoo & Forret, 2015; Luppicini, 2007; Marx et al., 2021; Owen et al., 2021; Pilcher, 2017; Shea et al., 2019). A compact group of individuals with a specific focus on learning requires transformational engagement and is

concerned with teaching, and learning processes and outcomes are referred to as a learning community (Bielaczyc & Collins, 2009). This perspective suggests that the changes highly influence newcomers' learning in a community in roles and relationships resulting from their incorporation into the community (Wenger, 1999). As they gain the knowledge and abilities necessary to move from the community's peripheral toward its core, they may adopt different levels of participation or roles within the community (Lave & Wenger, 1991). This study's goal was to describe the efforts teachers undertake to build online learning communities (OLCs) using synchronous or asynchronous learning models. It summarizes the findings of a qualitative case study conducted on four teachers from two different institutions in Central Java and East Java, Indonesia. It focuses on four main OLC components mentioned here: cognitive presence, social presence, and teaching presence (Cleveland-Innes et al., 2018).

This study also demonstrates the primary distinction between the synchronous and asynchronous learning models concerning how instruction is delivered in the OLC. In the synchronous learning paradigm, the Online Learning Community (OLC) was constructed utilizing video conferences using Zoom Meeting and Google Meet services. On the other hand, in the asynchronous learning model, the Online Learning Community (OLC) was developed through Moodle or Google Classroom and/or WhatsApp and Telegram conversation.

The concept of a learning community is grounded in a sociocultural understanding of how people's thoughts and beliefs are influenced by their place in the wider community's shared past, present, and future (J. S. Brown et al., 1989). From a sociocultural perspective, learning encompasses the ways in which students participate in activities and practices, modify resources and social networks, and incorporate and value indigenous ways of talking and thinking (Lave & Wenger, 1991; Rogoff, 2003). The members of the learning community are engaged in a wide variety of tasks, role linkages, and collaborative interactions across numerous projects at once (Lave & Wenger, 1991; Wenger, 1999). Thus, learning is participatory transformation rather than production or service delivery, in which learners actively participate in common values. Individual and community identities are developed when the group learns together.

Role asymmetry, strong interaction and meaning negotiation, and increased acceptance of shared responsibility for individual and collaborative learning characterize a learning community (Rogoff, 1994). Building relationships is critical for learning communities. Members require social and emotional connections in order to interact intellectually, socially, and emotionally (Sewell & George, 2008). These levels help members with their learning needs to change their intellectual, social, and emotional identities (Hung & Nichani, 2002).

Members' intellectual changes typically involve cross-disciplinary topic matter and cognitive enhancement compared to pupils in conventional sessions (Bereiter & Scardamalia, 1998; A. L. Brown et al., 1993). Social transformations include member engagement and connectedness, collaborative learning, resource sharing, student support and encouragement, a readiness to critically review others' work, and a dedication to group goals (Chapman et al., 2005; Rovai, 2002). Finally, recognizing each other's needs and altering attitudes and motivation to help and care for fellow participants reflect emotional shifts, even if it is difficult (Shield, 2000; Watkins, 2005). Dialogue develops confidence and opens minds to new ideas (Liu et al., 2007).

Using OLCs to teach and learn has two drawbacks. First, analytical frameworks cannot assess OLC complexity and diversity. Since a learning community develops when its individuals and the community as a whole shape and are transformed by one another, it is impossible to adequately account for either the activities of individual students or the class microculture in isolation (Sfard, 1998). Investigating member participation across development levels can help resolve this individual-community dichotomy. Rogoff's (2008) sociocultural concept of various

planes of development emphasizes personal, interpersonal, and community learning and growth. This perspective emphasizes individuals' participation and contributions to activities rather than just the outcome or product of learning and growth (Rogoff, 1997). Focusing on lecturer and student growth areas can help analyze teaching and learning in an OLC developed with adult graduate students.

Several fields, including education, have demonstrated the need for synchronous learning, which has led to its proliferation. However, no in-person interaction takes place within the context of online education. Both synchronous and asynchronous learning tools, like threaded discussions, instant messaging, and blogs, play an important part in humanizing online courses by recreating the in-person classroom experience of information exchange and social construct. This is true not only between students and teachers but also among students themselves.
The learning activities in this learning style occur in real-time and live contexts. Three key impacts may be linked to synchronous learning: the conventional classroom environment, the media, and traditional conferences (Hyder et al., 2007). Several academics have presented a comprehensive explanation of synchronous learning, and they all agree that it must have at least two components. First, they are the interactions that occur across time. Synchronous online learning, as defined by Khan (2007), involves students and teachers communicating in real time via the Internet.

Asynchronous learning varies depending on its components, nature, and common qualities. One notable definition of asynchronous learning is an engaged learning community that is not confined by time, place, or the boundaries of a classroom (Mayadas, 1997). Asynchronous learning, like synchronous learning, is a learner-centred approach that uses online learning materials to facilitate knowledge transfer across a network. Asynchronous learning can be delivered anytime, anyplace. Asynchronous learning is founded on constructivist philosophy, a learner-centred method that stresses peer-to-peer interactions. Self-study and asynchronous interactions improve learning in the on-campus, distance, and continuing education settings. Learners and their electronic communication networks comprise asynchronous e-learning networks. Numerous qualities and scenarios describe asynchronous e-learning. Based on these components, Khan (2007) argued that asynchronous learning refers to training that is not constrained by place or time.

METHOD

The purpose of this study was to describe the efforts teachers put forth into constructing online learning communities (OLCs) utilizing either synchronous or asynchronous learning models. To meet the objective of this study, a qualitative case study was employed. As a general rule, qualitative researchers start with the premise that social reality is an invention of humans; hence, they interpret and contextualize meanings based on the beliefs and practices of individuals (Denzin & Lincoln, 2005). Case study research involves the intensive study of a single unit to comprehend a wider class of (similar) units, observed at a particular moment in time or over some predetermined period (Gerring, 2004). Thus, case studies allow the researcher to have a thorough understanding of the research issue and make it easier to articulate, comprehend, and explain a research problem or condition (Baxter & Jack, 2008).

To answer the research question of this study, the authors involved four teachers from two different universities in Central and East Java, Indonesia. Those four participants were chosen based on the purposive sampling technique. They were selected based on a number of criteria, including the following: (1) they had experienced or were doing learning with synchronous and

asynchronous methods; (2) they had expressed their willingness to be directly involved in this research as informants; and (3) they were willing to provide information that was accurate and valid in accordance with what they have experienced or are currently experiencing in regards to the construction of an online learning community. The four participants in this study were written in pseudonyms, such as Jaka, Juki, Jeni, and Juni. The authors used triangulation to validate the qualitative data from the in-depth interview. In addition, they employed source and time triangulations. Finally, as stated in the research results section, the data were evaluated narratively based on the themes of the online learning community.

RESULTS AND DISCUSSION

Results

Teachers' efforts in building online learning community (OLC) in synchronous and asynchronous learning models

According to the findings of an in-depth interview, in order to build OLC in both synchronous and asynchronous learning models, the teachers utilized a number of different strategies. Some of these strategies included engaging in an exploration phase through information exchanges, connecting ideas, and applying new ideas (cognitive presence), opening two-way communication and encouraging collaboration (social presence), explaining instructional materials and focusing discussion, and engaging in reflection and checking for stumbling blocks (teaching presence). The followings are some of the interview excerpts with the four participants.

In terms of establishing an online learning community, I usually begin by exploring the material, for example, by exchanging information, explaining topics, tying topics to contextual conditions, and so on. Then, even when I'm online, I always maintain solid two-way communication; I explain the topic and urge students to remark on the learning material (Jaka).

The most critical aspect of creating an online learning community is that students feel the presence of the teacher. For example, in an online class, the teacher must remain the manager, directing, guiding the discussion, explaining the content, and, of course, reflecting and evaluating (Juki).

For me, I always start online learning with brainstorming and then explain the content (sometimes directly by video conference, sometimes by recording a video that I upload on my YouTube channel and then I share the video link with students). Then I direct what the students should accomplish and facilitate discussions and reflections. The key is that teachers must constantly be prepared so that students do not feel mistreated even when they are learning online (Jeni).

Communication and interaction, in my opinion, are crucial. Even when learning takes place online, communication between students-teacher and students-students must be tightly maintained. This can be accomplished through equating perceptions about the learning topic, explaining the material, discussing, reflecting, and so on. The online learning community will not form unless the communication is effectively established (Juni).

In an in-depth interview, teachers used several ways to construct OLC in both synchronous and asynchronous learning modes. These strategies included information exchanges, connecting

ideas, and applying new ideas (cognitive presence), two-way communication and encouraging collaboration (social presence), explaining instructional materials and focusing discussion, and reflection and checking for stumbling blocks (teaching presence). These findings align with the community of inquiry model proposed by Cleveland-Innes et al. (2018) and are shown below in the graphic form.
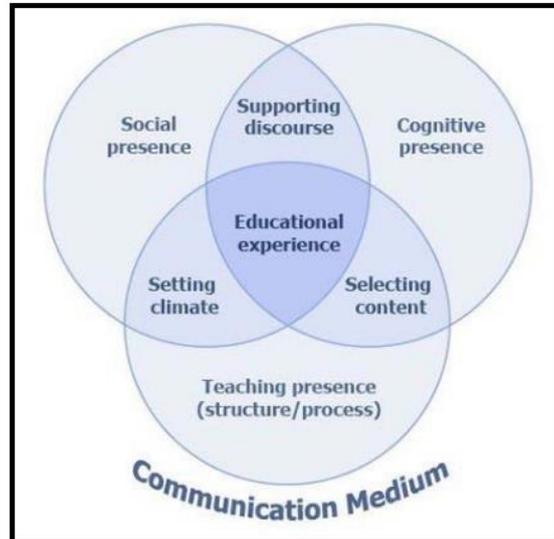

Figure 1. The Community of Inquiry Model (Cleveland-Innes et al., 2018)

The community of inquiry is built around the idea that learning occurs when three types of presence—social, cognitive, and teaching—converge (Garrison et al., 1999). The literature cannot agree on what constitutes presence. Yet, Biocca et al. (2003) note that users typically make a distinction between telepresence and social presence when describing their own subjective experience of "being there" in a mediated setting (Lessiter et al., 2001). Garrison et al. (1999) address the concept of "presence" in educational environments from the students' point of view, examining not just the social elements but also the cognitive and teacher-related ones.

Students' social presence in an online class is measured by how much of themselves they reveal and how others perceive them (Rourke et al., 1999). Teaching presence refers to the active participation of educators (teachers and maybe more experienced students) in all aspects of a learning environment (Anderson et al., 2001). Finally, the term "cognitive presence" refers to a student's ability to participate actively in a critical community of inquiry by constructing and verifying meaning through conversation (Garrison et al., 1999).

The difference between OLC in synchronous and asynchronous learning models
According to the findings of an in-depth interview, the primary difference between the synchronous and asynchronous learning models in terms of OLC can be attributed to the teaching modality. In the synchronous learning paradigm, the Online Learning Community (OLC) was constructed utilizing video conferences using Zoom Meeting and Google Meet services. On the other hand, in the asynchronous learning model, the Online Learning Community (OLC) was developed through Moodle or Google Classroom and/or WhatsApp and Telegram conversation. The followings are some of the interview excerpts with the four participants.

Synchronous online learning communities are clearly distinct from asynchronous ones. I frequently utilize Zoom Meeting or Google Meet for synchronous meetings. Interaction

takes place either directly or in real time. I utilize Moodle, which was created by the university, for asynchronous learning. In addition, I communicate and develop online learning communities using WhatsApp and Telegram. Almost all teachers, I believe, do this (Jaka).

The difference between synchronous online learning communities and asynchronous online learning communities is in the type of instruction that is provided to the students. Personally, I find that using Google Meet for synchronous communication is the easiest option because it simplifies things for both the instructor and the students. There is no minimum internet bandwidth requirement for using Google Meet. Asynchronous learning is accomplished for me through the use of platforms such as Moodle and Google Classroom, in addition to the use of WhatsApp groups for discussion (Juki).

Synchronous and asynchronous online learning groups differ greatly. I use Google Meet or Zoom Meeting for live meetings. Interaction can happen instantly. I utilize university-developed Moodle for asynchronous learning. I also develop online learning communities and encourage communication through WhatsApp and Telegram (Jeni).

Students are taught the difference between synchronous and asynchronous online learning communities through their instruction. Because it makes synchronous communication easier for teachers as well as students, Google Meet is my platform of choice. Meanwhile, asynchronous learning tools such as Moodle, Google Classroom, and WhatsApp groups are quite helpful for me (Juni).

An in-depth interview found that teaching modality is the main OLC distinction between synchronous and asynchronous learning models. Video conferences like Zoom Meeting and Google Meet built the Online Learning Community (OLC) in synchronous learning. The asynchronous learning model used Moodle, Google Classroom, WhatsApp, and Telegram to create an Online Learning Community (OLC). Nowadays, using mobile messaging apps (like Telegram, LINE, WeChat, and WhatsApp) and Learning Management Systems (LMS), such as Moodle, Google Classroom, Schoology, etc., to facilitate learning and communication has become increasingly common. Previous studies on the benefits of massaging apps and LMS on learning have indicated that these tools facilitate online socialization, knowledge sharing, and communication, leading to higher levels of motivation and support among students (Sweeny, 2010). An in-depth investigation of whether or if the incorporation of an online learning community into online learning can improve the skills of learners is even more recent (Ash, 2012; Bergmann, J., & Sams, 2012; Herreid & Schiller, 2013; Tucker, 2012). Further, according to Riwayatiningsih and Sulistyani (2020), implementing a combination strategy in online learning has proven to be very helpful to students in terms of the contact they have with the community and the engagement they have with the course material.

CONCLUSION

The purpose of this study was to describe the efforts teachers put forth into constructing online learning communities (OLCs) utilizing either synchronous or asynchronous learning models. According to this study, OLC can be broken down into three components: cognitive presence, social presence, and teaching presence. The teachers used a number of different strategies in order to build OLC in both synchronous and asynchronous learning models. These strategies included engaging in an exploration phase through information exchanges, connecting ideas, and applying new ideas (cognitive presence), opening two-way

communication and encouraging collaboration (social presence), explaining instructional materials and focusing discussion, and engaging in reflection and checking for students' understanding. In addition, the instructors explained instructional materials and centred discussion (teaching presence). How students are instructed differentiates the OLC's synchronous and asynchronous learning models from one another. In the synchronous learning paradigm, the Online Learning Community (OLC) was constructed utilizing video conferences using Zoom Meeting and Google Meet services.

On the other hand, in the asynchronous learning model, the Online Learning Community (OLC) was developed through Moodle or Google Classroom and/or WhatsApp and Telegram conversation. The findings of this study lead to the conclusion that pedagogical competency on the part of teachers is essential to the development of OLC in both synchronous and asynchronous learning models. Furthermore, this study suggests teachers always establish two-way communication in building OLC since OLC will not form unless the communication is effectively established. However, this study has limitations, such as limited settings, participants, and data collection methods.

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