Chapter 9

Supporting Group Learning Using Collaborative Networked Platforms

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ABSTRACT

Collaborative learning or learning in groups revolves around the constructivist theory where learning occurs through social interaction process where learners construct knowledge collectively. The rise of social networking sites and a general interest in enhancing group learning brought forward the idea of designing structured learning activities that enhance interaction, communication, and discussion between students using the online learning collaborative networked platforms. This chapter describes the use of networked platforms for design and implementation of collaborative learning activities for undergraduate students in Taylor’s University, Malaysia. This includes the use of Moxtra for group tutorial and real-time discussion, Google tools and Padlet wall for collaborative writing, as well as Slideshare for content sharing and discussion.

GROUP LEARNING: A SOCIAL APPROACH

Learning in groups, or group learning, allow learners to communicate ideas, clarify misconceptions and discuss with one another. Vygotsky (1978) emphasized that learning occurs through a social interaction process where knowledge is constructed based on social interaction between learners who have either similar or diverse perspectives. This is known as the social constructivism theory of learning.

The Framework of Social Constructivism for Learning

Constructivism involves making meaning out of the learner’s experiences. Hence, when social interaction takes place in a learning environment that is designed to enhance meaning making, those interactions are useful in the constructivism learning theory. Constructivism relies on the assumption that knowledge
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is a function of how learner constructs meaning from their experiences. Therefore, it does not involve transmission of objective facts but rather it depends on learners who are engaged in the meaning-making process. There are increasing interests in the value of social constructivism as the core component for developing more effective learning environments. It is believed that learners involved in the social interaction of a learning environment, including participation in collaborative projects and group assignments, are able to construct meaning through these activities. Therefore, according to the social constructivism theory, learning occurs through the process of conversation, discussion and negotiation. The social constructivism theory involves three main concepts: the ‘Zone of Proximal Development’, ‘Intersubjectivity’ and ‘Enculturation’. In social constructivism, learning occurs through the process of mutual understanding (intersubjectivity) between people through effective communication, a process which enables individuals to learn the accepted norms and values (enculturation) of the society from seniors and/or experts (Zone of Proximal Development).

Based on the social constructivism learning framework, the meaning making process is affected by learners’ experiences and background. The notion of intersubjectivity, relating to learners from diverse cultures, relies on the mutual understanding of socially agreed-upon ideas. It is argued that learning is shaped and evolved through negotiation within the communicating groups (Gredler, 1997). When members of the community are aware of the context of histo-cultural differences, the meaning making process becomes easier and widely accepted. It supports people to express their views of new information and activities among the group (Rogoff, 1990). Meanwhile, the role of peer tutors and adult learners as the ‘more knowledgeable other’ play an important part in helping learners to advance their meaning-making process. It is believed that through the processes of conversation and discussion, adult learners assist their peers to work through problems by providing guiding information and instructions in a process known as scaffolding. In the event where learners have grasped the concepts and ideas, the amount of help from peer tutors will be gradually reduced or no longer required. Apart from the need for peer tutors, the social context in which the discussion takes place within the culture similar to an applied setting defines the social constructivism aspect of authentic or situated learning. It emphasized on the influence of human culture and the sociocultural context where students were ‘encultured’ into the community of the particular academic discipline or profession in the learning process. It is also highlights the process of working closely with an expert who provides a model and gradually socializes the student into the culture of the profession or field.

Collaborative Learning

Collaborative learning is based on the fact that knowledge is constructed through social interactive processes. Collaborative learning activities involve structured learning approaches that are designed to enhance communication, discussion and negotiation which allows them to develop solutions for real-world problems. The interactive process is the crucial part for determining the success of constructing knowledge because it would then lead to the development of communication and collaboration skills, and becoming more self-directed learners. Collaborative learning activities are gaining increased attention due to the shift in the focus for learning how to learn in groups and work together as a team. Collaborative learning can be in the form of peer-to-peer learning or in larger groups. Peer learning is considered as a type of collaborative learning that involves learning in pairs or small groups to discuss concepts or find solutions to problems. Peer instructions or guided reciprocal peer questioning technique promote peer interaction and the development of critical thinking skills. It allows students to teach and learn