Chapter 42
Assisting Peer Learning Performance Using Online Collaborative Tools in Virtual Learning Environments

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ABSTRACT

Assisting peer learning performance through behaviour of teaching for learning is not a novel idea. In most learning environments, students have been supporting one another regardless of the involvement of their teachers. However, though the potential of peer learning has been realized, it is often introduced in unintentional way, without much consideration of their implications in different learning environments. In the virtual learning environment (VLE), especially, the application of peeragogy is imperative as the online knowledge is mainly generated through peer-to-peer learning and collaboration. Therefore, it is timely to explore how to embrace online collaborative tools in facilitating online peer learning. Three emerging online collaborative tools (workshop, wiki, and database) are discussed in this chapter with focus on the strategies and ideas to assist peer learning performance in VLEs. Checklist related to selecting the most effective collaborative tools according to the diverse pedagogical requirements is also provided.

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INTRODUCTION

When assisting peer learning performance, it is essential to consider who are the "peers" in the context of peer-learning. Generally, peers are people from similar social groupings, who are not professional teachers, helping each other to learn and learning themselves by teaching (Topping, 1996). In this context, peers are students who interact formally and informally with each other, within and outside formal teaching and learning sessions. They are often assigned to work together in the same learning community to achieve a variety of learning outcomes, with relatively little involvement from their course instructors over a semester. They not only collaborate on the learning task itself, but also provide emotional support to each other throughout the learning journey (Boud, 2001).

According to Boud (1998), the term "peer learning" suggests a two-way, reciprocal learning which involves notions of interdependence and mutual beneficial where students share knowledge, ideas and experience in a setting which is often constructed by the students themselves. Boud et al. (2001) further posited that reciprocal peer learning is considered as a sub-set of collaborative learning. It focuses on students learning with and from each other, and students acting interdependently with responsibility for managing their academic learning. It also acknowledges the contribution of current knowledge and skills which students make to the learning of their peers. In the peer learning environment, the teacher plays a less direct, more facilitative, but nevertheless crucial role in student learning, although on many occasions, teachers may not be present when students learn.

The concept of peer learning is also echoed well in the virtual learning environment through the concept of Cybergogy. The term Cybergogy reminds the educators that learning strategies used for face-to-face context may not be the same as the virtual environment. It highlights the strategies for creating the autonomous, collaborative and engaged learning in the online environment and integrates the cognitive, emotional and social processes of engaged online learning (Wang, 2008). In order words, Cybergogy maximizes the unique benefits of technology-enabled learning for better collaborative learning results.

The workspace in all industry is undergoing a massive disruption, and we no longer prepare students for certainty. The ability to learn effectively with peer will become a priced competency. Ab Jalil (2007) emphasized that educators need to equip students with the skills to share the teaching role in order to promote peer learning. Tutors should not have to respond to all students' online queries, but rather encourage peer assistance among students and make them view peer interactions as a valuable part in their online learning journey. Ab Jalil (2007) further posited that peer learning is enhanced when assisted performance is provided among the students, coupled with proper monitoring, encouragement and guidance. Furthermore, the idea that peer learning needs to be embedded in the course design, peer interaction for collaboration and meaningful contribution from the peers should be valued and credited.

Theory for Peer Learning: Peeragogy

Peer learning aligns to various theories, including the theory of cognitive congruence (Lockspeiser et al., 2008), which looks at the similarity between teachers' and students' knowledge of particular concepts. Learners feel more comfortable with peer tutors because of their similar social roles and "shorter-gap" in knowledge. They share a similar knowledge base and learning experience, which allows the peer tutors to use language that their learners understand and to explain concepts at an appropriate level (Yu et al., 2011). Similarly, social constructivism theory by Vygotsky (1978) is also aligned with the notion of peer learning as it relies heavily on the social interactions between students in order to successfully