Bridging Physical Separation: Transformation of Online Learning Environments

Research shows that increasing the interaction in online or distance learning environments results in a smaller transactional distance or cognitive space between instructors and learners and among learners and more effective learning in educational settings. Literature also documents that increased interaction in learning environments results in increased student course satisfaction and learning outcomes. Furthermore, researchers who studied computer mediated communication (CMC) or asynchronous online interaction point to its limitation with regard to nonverbal and vocal communication and note that the inability of text-based asynchronous online discussion to transmit vocal and non-verbal cues (found in synchronous interaction) causes it to be less immediate, less intimate or colder and less personable experience. However, despite these findings and the emergence of the newer Web-synchronous conferencing tools, the majorities of fully online learning courses either offer limited asynchronous communication or only offer interaction between learner and learning content.

In this presentation, the author provides research findings to demonstrate that the emergence of the newer Web-synchronous conferencing tools has provided a powerful combination of technologies and design that allow live and distance students to feel as if they are all in the same physical space. This new technology combines ultra-high-definition video, quality audio, specially designed environment and interactive elements to create the feeling of being in person with students in distance locations. Results of a recent study conducted to (1) analyze various communication tools and methods to find out how they influence the learning process, learning outcomes, learner motivation, self-regulation and satisfaction, (2) identify factors that compensate for the absence of live interaction in online asynchronous environment and vice versa; (3) identify factors that can be accounted for deeper and higher quality of
learning, and (3) assess the impact of various communication methods (synchronous, asynchronous and combined) on problem-solving skills (deep learning process), collaborative learning, learner motivation and self-regulation, will be shared.