Chapter 77
Paradigm Shift Toward Student Engagement in Technology Mediated Courses

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ABSTRACT

University recruitment websites continue to show students happily using technology in the higher education environment. Exactly how technology is used in the teaching and learning process continues to challenge and frustrate university instructors and students. A frequent depiction of college classrooms consists of an instructor lecturing from the front of the classroom and reprimanding students for talking to each other. In this paradigm, the professor is the "sage on the stage" and is the single transmitter of knowledge. Is this teaching and learning approach the most effective way to educate students? With recent discoveries about how students learn most optimally, and how technology can augment the process, a paradigm shift is required towards appropriate and intentional implementation of technology tools for engaging students to use higher-order thinking skills. This chapter explores the use and application of free digital tools that both improve and in turn enhance the learning process.

BACKGROUND

On university websites and recruitment publications throughout the world, university students are portrayed happily using some type of digital tool. The images imply technology is used for student engagement at the institution and the use of digital tools is encouraged. Interaction with course content and encounters with faculty, staff, and other students are critical for student success and satisfaction in higher education.

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The new paradigm shift involves how university instructors and students leverage technology in the classroom to actively engage with course content. More important than the specific college attended or even who the student is, actively engaged students will learn content and persist in their college experience at a higher rate (Cruce, Gonyea, Kinzie, Kuh, & Shoup 2007). Institutions of higher education continue to explore new ways to engage students through active learning. Many studies explore the reason students do not engage and strategies to engage university students effectively (Kahu, 2013).

Defining Engagement in Higher Education

Drawing from Chickering and Gamson's (1987) *Seven principles of good practice in undergraduate education,* many universities incorporate student engagement into the institution's core values. Colleges and universities seek new ways to programmatically engage students to improve academic challenge, learning with peers, experiences with faculty and overall campus environment. The National Survey of Student Engagement (NSSE) is a tool designed to measure the degree to which a student perceives himself to be engaged in these areas during the college experience. The tool is often given to graduating seniors and the results applied to the university improvement plans. Accuracy of the NSSE as a measure of engagement and a concise definition of student engagement continues to capture great attention from colleges and universities (Kahu, 2013). For the purpose of this chapter, student engagement is summarized into three areas of consideration: behavioral, emotional, and cognitive (Fredericks, Blumenfeld & Paris, 2004). Behavioral engagement includes following established rules and participating in extracurricular activities. Preparing for class, asking questions, and extending focused attention to the content at hand are also components of behavioral engagement. Emotional engagement incorporates student interest in the course, positive or negative feelings toward faculty members, and a sense of belonging to the university. Finally, cognitive engagement addresses student motivation to master the complexities of course content and the student's ability to regulate personal learning to become intentional in the application of successful learning strategies. Kahu (2013) noted that student engagement is of one of these areas of consideration. Instead, these must be a complex interplay of all areas for positive student engagement to become a reality. Lester (2013) called specific attention to the importance of engagement in the university setting. When students are actively engaged in a high quality learning process, there is a significant positive influence on retention, persistence and knowledge acquisition. Learning is influenced by the participatory teaching strategies and quality interactions between students and faculty members (Kahu, 2014). Students must exert effort to develop interpersonal relationships with other students and give focused attention to master course content. As students positively interact with each other and instructors, emotional engagement is enhanced. As emotional engagement increases, the behavioral engagement will also progress as collaborative strategies are applied in the classroom. Cognitive engagement naturally follows as the student becomes interested in the learning process, which began in the classroom, and seeks to understand the complexities of the content with focused, deliberate effort. The likelihood of withdrawing from the institution decreases (Fredericks, Blumenfeld, & Paris, 2004). Engagement, therefore, is a key, complex ingredient for student success at the university level.

Technology Enhanced Engagement

Gebre, Saroyan, and Bracewell (2014) conducted a study to investigate student engagement in technology enhanced environments and the professors' perception of effective teaching. Through questionnaire