EFFECTIVE ONLINE INSTRUCTION IN HIGHER EDUCATION

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Online education has emerged as an effective and increasingly common alternative to face-to-face instruction in postsecondary education. This article is a summary of effective practices in online instructional methods, including course design, interaction among course participants, and instructor preparation and support.

INTRODUCTION

Online education has emerged as a popular alternative to face-to-face classroom instruction. It provides educational opportunities to individuals with geographic, time, or other constraints that make postsecondary education difficult or impossible to pursue and another option to those who prefer online learning's flexibility and instructional delivery method. Many institutions also view online instruction as a viable method to provide quality instruction at a reduced cost (Garbett, 2011), with some studies finding online instruction to be more successful than traditional instruction (Angiello, 2010; Angiello & Natvig, 2010). Schrum, Burbank, Engle, Chambers and Glassett (2005) recently determined that 90% of 2-year and 89% of 4-year public institutions offered online education options. Further, online course offerings are increasing at a faster rate than traditional course offerings, with online higher education courses nearly tripling between 1995 and 2003 (Beck, 2010), and almost 100% of public institutions report online instruction as a critical part of their long-term plans (Major, 2010).

Given this strong contemporary attention to online instruction, faculty must become familiar with research-based methods for effective online teaching. Many college faculty, however, have had little training in pedagogy for online instruction (Gabriel & Kaufield, 2008; Schrum et al., 2005) and might be less likely to participate in online teaching due to a perceived "unsettled nature of pedagogy for distance learning efforts" (Major, 2010, p. 3). To help address this need for greater information, this review of literature summarizes effective practices in online pedagogy.

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APPROACHES TO EFFECTIVE ONLINE INSTRUCTION

Successful online instruction requires new methods of course design, interaction among course participants, and instructor preparation and support. These categories are discussed below.

Course Design

Technology selected should be compatible with varied student needs (Osman, 2005). For example, it should be universal enough to support different international formats. Technical support should be available to both instructors and students (Osman, 2005). Further, based on conclusions drawn from a qualitative study of instructors and students in two higher education online environments, Schrumm et al. (2005) suggest that students have access to an online orientation to familiarize themselves with online-course features, such as chat rooms, discussion forums, and working with PDFs and document files. To further address technological concerns within the course design, the authors recommend including a section with answers to frequently asked questions and a page of helpful resources

Multiple methods of content exploration and transmission should be designed into online courses, including synchronous and asynchronous learning activities (Liu, Liu, Lee, & Magjuka, 2010; Osman, 2005), as well as compressed videos, presentation slides, video lectures, website viewing, and multiple communication methods, such as e-mail, chat rooms, and webcam conversations (Balkin, Buckner, Swartz, & Rao, 2005). Communications should be carefully designed (e.g., Guthrie & McCracken, 2010). Tee and Karney (2010) suggest that this include unstructured, informal opportunities for open and honest conversations; a place to discuss formal course content; a site for posting work for review, comment, and use; and an area for reflecting evaluatively on work.

Interaction Among Course Participants

The theory of constructivism posits that learners develop their own understanding by participating in meaningful, shared discourse, and thus learning is advanced through productive work with others (Brophy, 2002; O'Neill, Moor, & McMullin, 2005; Vygotsky, 1978). Research has confirmed that collaboration among students does have learning benefits (e.g., Balkin et al., 2005; Tee & Karney, 2010). Beck (2010) postulates that being unable to ask teachers questions and receive immediate feedback in asynchronous online courses leads students to be more dependent on one another and thus results in greater collaboration. According to constructivism, this makes the online environment conducive to enhanced learning. Tee and Karney (2010) contend online discussions can yield information and insights that students could not have learned from more formal sources. In their research, they found that discussions "provided the students opportunities to share divergent world views, opinions and experiences, develop trust, and make decisions based on a growing common understanding" (p. 405).

Evidence shows that instructors need to maintain substantial involvement in online courses (Reushle & Mitchell, 2009; Schrum et al., 2005). They need to determine how to build a new persona as well as relationships with students in these remote environments (Major, 2010). In their critical role in structuring and facilitating high-quality discussions, they should include both synchronous and asynchronous methods, as noted earlier. In Ward, Peters, and Shelley's (2010) research, students reported perceiving classes with synchronous communication as having higher instructional quality than those with only asynchronous communication methods. In order to successfully implement synchronous online discussions, students must be trained in the necessary technologies, such as using web cameras and microphones to communicate (Balkin et al., 2005).

It is also important to recognize that communication can be challenging for international students. For example, in a study of international students completing an online master's of business administration program, students reported struggling with asynchronous conversation because of the lack of visual cues and with the schedule of synchronous discussions due to time-zone differences (e.g., Liu et al., 2010). The students also reported language barriers for which they did not receive the assistance they were used to in face-to-face settings. Further, Zaho and McDougall (2008) found that due to cultural differences, Chinese students were uncomfortable with and thus unwilling to post messages that disagreed with the instructor's view, thus limiting discussion and detracting from equal participation among students. Students from China, Russia, and India have reported experiencing difficulty with an expectation for regular communication versus their more common practice of reading lectures and passing exams, and they were uncertain about when to cite references in online writing (Liu et al., 2010). Online instructors must thus find ways to support these needs by, for example, providing more context for content and assignments, more specific information about expectations, and greater use of audio/visual aids (e.g., Liu et al., 2010).

The roles instructors play in facilitating productive online discussions can include managerial, social, pedagogical, and technical (Lear, Isernhagen, LaCost, & King, 2009). Reushle and Mitchell (2009) suggest that instructors create a safe learning environment by "establishing a clear purpose, structure and expectations … using ice breaker activities to encourage a supportive atmosphere and human presence; using emoticons and informal written text to promote online friendliness, and modeling a read, reflect, respond" (p. 17). Through facilitating respect and emotional integrity in a student-centered environment, the instructor can help students to develop positive and productive relationships with one another (Lear et al., 2009).

Instructor Preparation and Support

Most instructors new to online teaching begin with little to no training or preparation specific to this delivery mode (Fish & Wickersham, 2009; Gabriel & Kaufield, 2008). Balkin et al. (2005) caution that instructors must receive proper training to achieve effective student collaboration, given their finding that students with greater teacher involvement collaborated more with online peers. With proper professional development, postsecondary instructors have been shown to hold high expectations and adapt their teaching to appropriate online teaching strategies (Schrum et al., 2005). Instructors, however, need support beyond training in the pedagogy of online instruction. Online instructors need access to and training in appropriate technology (Gabriel & Kaufield, 2008). Gabriel and Kaufield (2008) found that instructors in their study were supported with technology haphazardly. Many instructors reported working on inadequate equipment, leading to wasted time and frustration. Accordingly, online instructors need adequate technology to conduct their course. Further, they should be trained in how to use the functions of the online system and know who to contact for technological help.

Instructors report that online courses take more time than traditional courses to teach (Gabriel & Kaufield, 2008). Accordingly, online instructors need additional support in the form of reduced teaching loads or provision of teaching assistants (Major, 2010). Due to time constraints and modality of instruction, instructors in online environments can become isolated from colleagues and therefore miss out on meaningful discussions, constructive feedback, and a sense of collegiality. To help mitigate these potential concerns, Gabriel and Kaufield (2008) suggest forming communities of practice where instructors can share ideas and assist each other in online teaching.

CLOSING COMMENTS

Online education will surely continue to grow at a rapid rate. However, given the reported reluctance of faculty to teach in this modality and the lack of training and support for faculty teaching online, it is clear that more research is necessary regarding how to develop effective online instruction. More research is needed on how to prepare and support online instructors. Research should also be conducted on student experiences, motivators for participation, and perceptions of relative strengths and weaknesses of various aspects of online education

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