

# **ADMINISTRATIVE SUPPORT OF FACULTY PREPARATION AND INTERACTIVITY IN ONLINE TEACHING: FACTORS IN STUDENT SUCCESS**

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## **ABSTRACT**

**Online instruction is not a new development in higher education. However, faculty continue to experience demands for new online course development, often with insufficient training. Interactivity, by design, in the online environment is more challenging than interactivity in the traditional classroom. The influence of faculty development and interactivity on student success in online classes is a critical consideration for both faculty and institutions. This article examines relevant research that underscores important issues for online instruction.**

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## **Introduction**

**T**he availability of online instruction in higher education is no longer unusual. “The delivery of courses and even complete degree programs online has become commonplace in higher education” (Leist & Travis, 2010, p. 17). With more than six million students enrolled in one or more online courses in 2010 (31% of total enrollment), a figure that has increased at a rate of 10% or more since 2002, academic leaders on campuses have indicated that online instruction is crucial to their institutions (Allen & Seaman, 2011). The

success of such a revolution in higher education course delivery depends significantly on the retention of students in online courses. With some estimates of dropout rates in online courses to be considerably higher than those in traditional face-to-face classes (Boston, Ice, & Gibson, 2011), educators need to recognize the factors that lead to student attrition in online course delivery. Certainly, a range of causes exist when students do not complete a class, some of which lie within the control of the student. However, the institution can impact two factors of student attrition in online courses: poorly designed courses and frustration with technology (Dykman & Davis, 2008; Moos & Azevedo, 2009; Rutherford, 2007).

### **Purpose of the Article**

The purpose of this article is to emphasize the importance of administrative support for faculty who are expected to convert their classroom instruction to an online platform, because this task requires additional time, preparation, and technical support. Administrative support is also important to ensure student success in online classes, which is dependent on both faculty development and interactivity in online classes. Relevant research about these issues of online instruction is provided.

### **Interactivity and Professional Development**

One critical component of online courses that can mitigate these two dropout factors is the interactivity or interaction that is enabled by the technology. Four aspects of interaction in online course delivery have been attributed to student completion of the courses: learner-interface interaction, learner-content interaction, learner-learner interaction, and learner-instructor interaction (Lewis & Abdul-Hamid, 2006; Moody, 2004, Sutton, 2001; Swan, 2004). In addition, adequate faculty development is critical to ensure that faculty can design online courses effectively and develop their skills in enhancing

student interaction.

How successfully students can use the technology to enable them to interact with instructors, course content, and other students is determined by learner-interface interaction. When this dimension of interaction breaks down in an online course, no other interaction is possible. Students must have sufficient technological skills to access and to navigate in online courses. Downloading course materials, uploading assignments, accessing and using communication systems with ease, and understanding how to solve the inevitable technological problems are all skills that online students must be able to manage before they can interact with any people in this delivery system. Given the remote locations of many online learners, any difficulties they have with interface interaction can render their continued enrollment in online courses at risk. Faculty and institutions can enhance students' interface interaction by ensuring that course design is consistent (Dykman & Davis, 2008).

So long as students are able to interact smoothly with the technology interface, they can also interact with the course content, a typical requirement for all classes, regardless of delivery mode. Their interaction with the content, or subject matter, is what makes learning possible. How faculty adapt their learning materials to the online platform can affect significantly the ability of students to learn in an online course. A common mistake made by faculty who lack training in online course design, simply using a "copy and paste" procedure, can retard student learning considerably (Dahl, 2005; Li & Akins, 2005; Travis & Price, 2005).

Although earlier forms of distance education (e.g., correspondence and video) relied almost entirely on learner-content interaction, a sense of community, which requires learner-learner interaction, typically was not available (Heerema & Rogers, 2001; Marks, Sibley, & Arbaugh, 2005). Building a community of learners by using collaborative activities is valuable for promoting learning and retention (Rovai & Barnum, 2003; Santovec, 2004). After online

course delivery became available, a new kind of educational community was possible (Marks et al., 2005; Thurmond & Wambach, 2004). Involving both synchronous and asynchronous discussion sessions, small group and other forms of collaborative activities, and even initial face-to-face meetings can facilitate an environment that leads to community building. The establishment of such a community in the online "classroom" allows for "mutual interdependence among members, connectedness, trust, interactivity, and shared values and goals" (Rovai, 2002, p. 321).

Success in establishing and maintaining communities of learners in online courses requires effective learner-instructor interaction, which affects both academic and social integration of the students. Instructors can enhance student success in the online environment by motivating students and providing them with relevant communication (Sadik & Reisman, 2004). Because the teacher-centered approach of the traditional classroom does not enhance learner-instructor interaction, faculty need to rely more consistently on a learner-centered focus that requires a more personal level of communication with students (Halio, 2004; Stumpf, McCrimon, & Davis, 2005). The interaction between the instructor and the learners needs to be more frequent and consistent in the online arena.

In order to ensure effective interaction and retention in their online courses, faculty generally need to have sufficient professional development in the technology and instructional design specific to the online platform (Aragon & Johnson, 2008). However, up to 40% of colleges and universities do not provide any training for online teaching to their faculty (Mupinga & Maughan, 2008). Although institutions may be lacking in the necessary instructional design support, leaders should acknowledge the need for faculty preparation (Oblinger & Hawkins, 2006; Sadik & Reisman, 2004), especially given the fact that faculty who receive formal training in online instruction are more successful (Wolf, 2006). The professional development that faculty need includes both technical skills and nurturing in pedagogical innovation to help them creatively adapt their

face-to-face courses to the online platform (Hewett & Powers, 2007; Travis & Price, 2005). With adequate preparation, faculty can incorporate all four types of interactivity successfully in their online courses, which in turn will contribute to student satisfaction and retention.

### **Lessons From Research**

Several studies have examined the impact of faculty development and support and the interactivity in online courses on student success in these classes. In a study to assess students' feelings of community vs. alienation, Rovai and Wighting (2005) used two scales to measure these attitudes with 117 graduate students in six research methods courses covering one semester each. They found that students who exhibited greater feelings of powerlessness and social isolation also seemed to have a weaker sense of social and learning community. Such findings demonstrate the importance of community in online courses.

Seeking feedback on the effectiveness of web-based courses, Marks et al. (2005) surveyed students from 43 course sections in a university MBA program in the Midwest over a 3-year period. They discovered that learner-instructor interaction in online courses was considered by students to be twice as important as learner-learner interaction. "Without a doubt, instructor-initiated communications are instrumental in creating positive attitudes of students, motivating them to learn, and in keeping them focused on the topic" (Marks et al., p. 553). Although their findings contradicted the assertions by Rovai and Wighting (2005), the appeal of online courses for independent learners is certainly not uncommon.

Song, Singleton, Hill, and Koh (2004) used a mixed method research design to gain insight on the aspects of online learning that students interpreted as both challenging and beneficial. With a purposeful sample of 76 graduate students in an instructional

technology class, they found that most of the participants regarded course design, technological assurance, motivation, and time management as important for student success in the online environment. The students reported that they considered the following as challenges: lack of community, technical problems, and unclear instructional goals. Song et al. concluded that effective instructional design was crucial to success with online courses. They emphasized that the course design needed to incorporate both pedagogical and technological issues and to focus on goals and objectives for the students.

In their study of over 1000 students at 32 participating colleges, Shea, Li, and Pickett (2006) used two instruments to measure the students' perceptions of community and their instructors' social presence in online courses. Students felt the total classroom community was influenced most by the instructional design and organization of the course, social presence, and directed facilitation. Shea et al. concluded that student connectedness and learning depended heavily on effective instructional design and organization in addition to an active presence of the instructor. Harris, Larrier, and Castano-Bishop (2011) also provided a potentially effective tool for assessing online students' perceptions: the Student Expectations of Online Learning Survey (SEOLS).

To explain why they were seeing a lower completion rate in online writing courses when compared to the face-to-face offerings, Sapp and Simon (2005) decided to study student completion rates and grades in nine sections of two writing courses, offered in both online and face-to-face formats. The completion rates as well as the grades were generally lower for students in the online sections, although some online sections showed grades almost on a par with the face-to-face sections. After consulting with the instructors, Sapp and Simon concluded that some students in the online sections failed to formally drop the class, whereas the students in the face-to-face sections tended to withdraw earlier. Hence, the online classes would naturally exhibit lower grades.

Morris, Finnegan, and Wu (2005) also conducted a study of student attrition from online courses. They collected data from three semesters of three online core classes in the University System of Georgia. Of the 423 students enrolled in these courses, 214 successfully completed, 137 withdrew, and 72 failed the class. Morris et al. concluded that faculty could enhance student success in these classes by using available tracking tools to assess the areas and frequency of student access. They further suggested that faculty could help students by using both their pedagogical and their managerial roles in the online platform to emphasize important content sites, to offer feedback on student participation, and to enhance student comprehension of the course format.

Using a procedure that they stated had not yet been followed, Grandzol and Grandzol (2010) analyzed interaction in online courses on a course management system that measured the time students were actually interacting. They gathered 2 years of data from 349 business courses at six Midwestern community colleges, seeking to determine if interaction affected course completion. Although Grandzol and Grandzol found no connection between course completion and either class size or student interaction with faculty, they discovered that student-student interaction was associated with completion rates in a negative way. Despite contradictory findings from earlier studies, the researchers concluded that the more students interact with each other, the less likely they are to complete the course.

In a study that focused on a totally online institution, Boston et al. (2011) looked at student retention in the American Public University System. As they addressed an increasing problem of attrition among first-year students, the researchers wanted to develop a predictor model for student retention in an online program. In addition, they sought to identify what factors can lead to student retention in online programs. Boston et al. found that among the most significant predictors of student attrition from first-year online courses, the first was a failure to receive transfer credit. The second greatest predictor of attrition was a high number of courses taken in the first year. The

third greatest predictor was failing a course. Finally, the fourth greatest predictor was withdrawing from a course. Almost half of the students who left the program had received either a W or an F in their final course. Students also said they dropped because they believed the program was either too difficult or they did not have the necessary time for the program. Boston et al. found that many of the students left the institution after two classes and concluded that some students may have attempted an online program primarily as an exploration.

Kumar and Dawson (2012) examined the implementation of an online doctoral program in educational technology at the University of Florida. They surveyed 26 students and interviewed 19 students and 4 faculty in the program to acquire data about student learning and satisfaction. Among the results obtained by Kumar and Dawson were some enlightening findings about student interaction and community building, particularly in the noncourse opportunities for interaction. Rather than seeking to build a community through interaction with their peers outside of the courses, the students preferred to depend on the faculty for this type of support.

As noted earlier, institutional investment is lacking in faculty development to facilitate a shift from face-to-face to online instruction, especially as online offerings have increased (Maor, 2006; Mupinga & Maughan, 2008). Consequently, many faculty are forced to learn from their own experience in the online arena. Rutherford (2007) conducted a study that examined the impact of professional development and instructional design support on the levels of interactivity in online courses at 2-year colleges and how the degree of interactivity could be associated with student success. To gather data, Rutherford surveyed 230 community college faculty throughout Texas who teach online courses. Over 25% of these faculty members admitted they did not receive professional development for online instruction before they taught their first online course. Almost half stated they received assistance from experienced online faculty, but only 49 received preparation from instructional designers. After teaching at least one online course, 94 of these faculty members received assistance from

instructional designers, and over 96% of them had participated in some professional development in online instruction.

Among the results of her study, Rutherford (2007) reported the level of interactivity in community college online courses was not related to professional development of the faculty in online instruction or to the utilization of instructional designers by the faculty. Consequently, she concluded that no single form of faculty development appears to be preferable in preparing faculty to teach online and enhancing interactivity in online courses. However, this finding does not mitigate the need for faculty development, especially in regard to online instructional design. In addition, Rutherford found that student success in an online course was positively related to course interactivity. Hence, faculty should seriously consider increasing the levels of interactivity in their courses.

Assessing faculty training needs as well as their experience with training programs can yield important data to assist campus leaders who are committed to preparing faculty for online instruction. In their study of community college faculty participation in online course training, Pagliari, Batts, and McFadden (2009) surveyed 60 faculty who taught in fields that were primarily technological. Almost half of the 22 respondents indicated no training in online teaching, either on or off campus. Given the constantly changing environment of technology, Pagliari et al. emphasized concern that faculty are not being prepared adequately for online teaching. They cautioned administrators to resolve any issues of poor attendance at training sessions and to ensure faculty receive sufficient training.

Hixon, Barczyk, Buckenmeyer, and Feldman (2011) examined a faculty mentoring program at Purdue University, Calumet. They evaluated the 4-year results of the Distance Education Mentoring Program (DEMP) that was initiated to assist faculty with technology and course design skills using a collaborative, cohort-based procedure. Hixon et al. surveyed 47 of the faculty mentees to obtain their perceptions of the program. They found the faculty who participated

in DEMP were satisfied with the program, especially the collaborative, peer orientation of the program. Hixon et al. also noted that institutions developing similar programs, no doubt, will encounter faculty with less enthusiasm and fewer technological skills than those faculty who have led the way in online instruction. Such a situation necessitates a different approach to training and mentoring faculty, not unlike the understanding required of faculty who encounter online students with limited technological skills and a higher potential for frustration and attrition.

Lackey (2011) also conducted a study to obtain faculty perceptions of their training for online instruction. She interviewed six faculty, two from each institution, at three colleges in northwest Ohio. Three of the faculty participants had at least 3 years of experience in online teaching, whereas the other three had less than 2 years of online experience. All six were teaching an online course at the time of the study. The six participants indicated their primary obstacles were acquiring the technological skills and missing the classroom interaction. Although none of the six faculty took part in a formal process of faculty development before teaching online, they all managed to acquire some form of help after initiating or completing their first online class. Half of the participants noted they were not given any preparation. This sense of little to no preparation may be connected to the desire for most of the faculty for assistance in learning instructional methods. Such a lack of instructional preparation of college faculty is not a new discovery (Travis, Outlaw, & Reven, 2001), though it underscores one major problem in online teaching. Similar to the findings in Hixon et al. (2011), Lackey indicated the faculty in her study preferred individual assistance from faculty and staff, reiterating that more collaboration would help them the most. The benefits of faculty collaboration, particularly when confronting instructional issues, also have been emphasized for many years (Cross, 1990; Gottshall, 1993).

## **Conclusion**

Although much of the research addressing online instruction may be somewhat contradictory, especially regarding the degree of importance for specific types of interaction, the influence of the four modes of interactivity and faculty development in online instruction on the success of students in online classes is worth noting. Furthermore, as institutions of higher education and students continue to increase their demands for more online offerings, faculty continue to shoulder the heavy load of designing and teaching new online courses, often with minimal support. Clearly, institutions need to provide more support and training for faculty, particularly in instructional design and pedagogy, as faculty increasingly take on the responsibilities of converting face-to-face classes to online delivery.

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