Student Attrition: An Argument for Synchronous Learning Online

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Abstract

The purpose of the study was to determine to what extent online instructors make use of synchronous tools, and whether use of synchronous tools is correlated with retention. Between April and September of 2010 a confidential web survey was e-mailed to 120 randomly selected higher education instructors across the country who taught either 3- or 5-credit online classes. These instructors were employed by community colleges, public and private four-year colleges, and universities. Questions were geared toward understanding whether online instructors used synchronous tools in their online classes, and whether use of these tools had an effect on the number of incompletes authorized. Results indicated that most instructors did not use synchronous lectures, webcams, or meeting platforms, and that those instructors who did not use synchronous tools authorized more incompletes than those who did. These results show that lack of synchronous tool use may be correlated to lower completion rates. To improve classroom interaction in an effort to reduce attrition, instructors should consider implementing synchronous tools that provide instant gratification and reduce the cognitive loads of online learners.

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Attrition rates in higher education courses can have a major negative impact. Students that drop out are less likely to repay their student loans and subsequently put other students and the institution at risk for federal scrutiny and possible denial of federal aid. This, in turn, would result in lower revenues for institutions of higher learning. Therefore, improving student retention is a priority of almost every higher learning community, and new and creative ways of keeping students interested in their education is of paramount importance. In a ground school environment, the tools for retention are diverse: in-class socialization, social events and activities sponsored by the institution, and an almost guaranteed daily "hands on" atmosphere. In an eLearning environment, the tools for combating student attrition are fewer, more challenging to utilize, and often require additional training for instructors and students.

Online classes have a higher number of students vacating them than traditional ground courses. According to Carr (2000), eLearning attrition rates are estimated to be 10% to 20% higher than they are in traditional, on-campus classes. More recent studies put the number much higher: Lynch (2001, cited in Adkins & Nitch, 2005) reports that "student dropout rates in online courses are as high as 35% to 50%, as compared to traditional classes."

The reasons for attrition are many and complex, and range from difficulty using the necessary technology to students' personal crises. There are no simple answers. However, because of the vast increase in online learning programs, possible solutions must be explored. One area of concern for online courses has to do with keeping students engaged in the learning process.

Gednalske (2010) writes that "the profile of the average online student shows that most online students are between the ages of 30 to 49 years old," which puts them squarely in

Generation X—those people born between 1961 and 1981. The 21st century—the Age of Science and Technology—fosters a society that thrives on its people's need for instant gratification, and this need for external motivators can be seen in Generation X students. Brown (1997) writes that "Conditioned to expect immediate gratification, Generation Xers are responsive. They crave stimulation and expect immediate answers and feedback."

In a ground school environment, the need for immediate feedback and instant gratification is met in class, in large part by interaction with the instructor and other students. Even students whose participation in class is minimal must still interact with the instructor on a personal basis, and are present to hone into such non-verbal communication as the instructor's facial expressions and tone.

If interaction is one component of helping students engage in the learning process, how can educators fulfill online students' need for instant gratification? One such way might be through weekly synchronous learning sessions.

Another benefit, beyond instant gratification, is that synchronous learning may help to prevent cognitive overload. Cooper (1998) states that cognitive load refers to "the total amount of mental activity imposed on working memory at an instance in time," and explains that "The major factor that contributes to cognitive load is the number of elements that need to be attended to." Cognitive overload, then, occurs when there is not enough working memory to process learning.

Whipp and Chiarelli (2004, cited in Tyler-Smith, 2006) note that students unfamiliar with online learning face a number of new challenges including "technical access, asynchronicity, text-based discussions, multiple conversations, information overload, and isolation."

Moreover, unlike trained professionals, students do not necessarily "have a mental organizational structure that facilitates the retrieval and effective application of their knowledge," nor do they "have an ability to monitor their own thinking (Wieman, 2009). Students' analytical abilities sometimes do not extend much beyond their being able to ask themselves, "Do I understand this? How can I check my understanding?" (Wieman). In online courses, synchronous meetings may serve to orient and explain the course work to students.

In order to determine to what extent online instructors make use of synchronous tools, and whether use of synchronous tools was correlated with retention, a study was undertaken. Between April and September of 2010 a confidential web survey was e-mailed to 120 randomly selected higher education instructors across the country who taught either 3- or 5-credit online classes. These instructors were employed by community colleges, public and private four-year colleges, and universities. No consideration was given to the subject taught or whether the instructor was associated with an institution that was completely online or part of a ground school that offered online courses. Questions were geared toward understanding to what extent online instructors made use of online tools, and whether use of online tools resulted in lower attrition rates.

While the number of students that originally enrolled and then dropped the class could not be measured, to gather some idea of the relative attrition rates in these courses, respondents were asked how many incompletes they had authorized. Results showed that 40% authorized between 1 and 3 incompletes, 5.8% authorized between 4 and 6 incompletes, and 2.5% authorized 7 or more incompletes.

Instructors were then questioned about the types of tools used in the online class. One question asked whether they held required synchronous lectures or meetings. Just over four

percent (4.2%) indicated that they did, and 6.7% indicated that they did “sometimes,” leaving 89.1% of respondents who did not employ synchronous learning.

Respondents were also asked whether they used a webcam. Results showed that 7.5% used a webcam regularly, and another 6.7% used one “sometimes,” leaving 85.8% who never used a webcam in their online courses.

Finally, respondents were asked whether they used meeting delivery platforms (Global Crossing, Skype, etc.) to create an “in class presence.” Ten percent indicated that they did, and another 8.3% reported that they did “sometimes,” leaving 81.7% reporting that they did not use meeting delivery platforms.

These numbers suggest that few instructors make use of synchronous technology, either synchronous lectures, webcams, or meeting platforms. Those who do, however, are less likely to lose students: when use of synchronous tools was compared with the number of incompletes authorized, it appears that higher drop-out rates are correlated with lack of synchronous tool use.

A cross-tabulation of instructors who did not require attendance at a weekly synchronous lecture with the question regarding incompletes showed that of those who authorized between 1 and 3 incompletes, 91.7% did not require students to attend synchronous lectures, and that of those who authorized more than 4 incompletes, none required attendance at synchronous lectures.

When compared with the question that asked whether the instructor used a webcam, the 85.4% who did not use a webcam authorized between 1 and 3 incompletes. Of those who authorized between 4 and 6 incompletes, 85.7% did not use a webcam, and of those who authorized 7 or more incompletes, none used a webcam.

Of the instructors who authorized 1 to 3 incompletes, 79.2% did not use a meeting delivery platform. Of those who authorized between 4 and 6 incompletes, 85.7% did not use a meeting delivery platform, and of those who authorized more than 7 incompletes, none used a meeting delivery platform.

Eighty percent of the instructors who held weekly synchronous lectures or meetings that students were required to attend did not authorize any incompletes.

Because the number of instructors using synchronous tools is so small, it would be difficult to speculate about whether requiring them would actually contribute to student retention. On the other hand, what the findings do suggest is that not using synchronous tools results in lower course-completion rates: none of the instructors who authorized more than 7 incompletes used synchronous lectures, web cams, or meeting platforms.

Improving student retention in online classes is an essential component of maintaining quality online programs and retaining federal financial aid. To that end, instructors should be encouraged to find ways to implement some of the components—including classroom interaction—that traditionally boost retention in ground school classes. Synchronous lectures provide one opportunity for this contact. Moreover, because of the average age of online students, with their tendency to require instant gratification and their possible unfamiliarity with technology (which might produce cognitive overload), synchronous lectures appear to be one way of engaging this particular group. While use of synchronous tools is not popular option for most online instructors, those who use them may find that they experience lower drop-out rates.

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