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Synchronous Interaction Tools and Blended Learning

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Introduction

In less than 20 years the internet has transformed the college landscape, with 70% of college executives now believing that online education is critical to their school's long-term strategy (Allen & Seaman; 2015). One reason for this growth in popularity of online education is the flexibility that it affords today's student who is increasingly burdened with responsibilities outside the class. However, this explosion of popularity in online education has led to the challenge of integrating these students into the college campus. Wake Technical Community College, like many other colleges, suffers from a performance gap between online and traditional students, with online students lagging behind their seated counterparts in persistence and success, and minority students performing especially poorly. One consistent problem often cited in performance disparities between online and seated students is the relatively low engagement that plagues the online student. And while there are many discussions regarding student engagement, most focus on what happens inside the course shell (Anderson, 2003; Bernard et al, 2009; Curry, 2000; Holden & Westfall, 2006; Jaggers & Hu, 2016). Wake Tech administrators believe there is room for improvement in the development of non-instructional and extracurricular resources for online students. The goal of this paper is to discuss how reimagining these resources might impact the engagement and performance of online students, and to discuss one possible best practice.

Interactive Extracurricular Activities for Online Students

Participation in campus-based extracurricular activities plays an important role in student engagement with campus life for seated students (Karp, 2011), and there is no reason to suspect anything different for online students. However, the reasons that lead students into online education may often be the reasons that prevent them from taking advantage of campus-based non-instructional resources such as the library, tutoring centers, and club activities which help support and nurture students. In developing extracurricular non-instructional resources for online students, the typical approach employed by colleges is what might be called the "replication" premise, in which versions of campus resources are replicated for online students on the school's website. Examples of this might include library links that provide access to books and articles, tutoring links, and blogs that report on the activities of various campus clubs. These web-based resources are relatively limited compared to the resources they attempt to mimic. The main limitation of these online resources is that they provide no outlet for social interaction among students, faculty and staff. If one of the strengths of non-instructional and extracurricular activities is the sense of integration and connectedness that comes with social interaction, then these non-instructional resources may be diminished in value for online students.

Free and low cost web conferencing technology is now ubiquitous and inexpensive enough to allow for the reimagining of these non-instructional resources to include a more social component. Rather than just providing web content that mimics static campus resources, it is now time for the development of interactive live streamed programming to blend students into existing campus-based activities and

resources. This *blended* approach would involve the use of web conferencing tools to create opportunities for online students to engage in synchronous interactions with each other, as well as with students and faculty members on campus in live events. This innovative idea literally brings down the walls between online and campus based students, allowing for the integration of students across learning environments. Most powerfully, the use of online meeting software is easily scalable. Web conference products such as Adobe Connect and GoToMeeting are web conferencing products that are free for users, reasonably priced for meeting administrators, and require no special equipment.

Demonstrating the Need

As part of a pilot project to test student interest, members of the Social Science faculty live streamed eight meetings for the campus Social Science Club during the 2015/2016 school year. These meetings were streamed using Adobe Connect, one of several flexible and inexpensive web conferencing tools available. The design of Adobe, like most web conferencing tools, allows for a wide variety of social interaction. In Adobe, the meeting host can share videos, PDFs, Power Points, and images. Meeting participants can use audio or text chat, stream their images, vote in class polls created by the host, and even (if you have the paid widget) take quizzes that can be automatically uploaded to the instructor's course shell. Online student participation at these eight club events was good, with online student attendance nearly matching seated attendance. (Roddenberry & Kallimanis, 2016).

Fall 2016

Encouraged by the success of 2015/2016 benchmarking data demonstrating student interest, live streamed opportunities for online students were expanded to include meetings from all disciplines within our academic division. Six club events were live streamed during the Fall 2016 semester, varying in size, topic, and production complexity, allowing for a test of the online meeting software in multiple settings. One of the events included a "simulcast" of the live feed to another classroom filled with students from a different campus. These live streams were very popular, with 333 of the 674 meeting participants (49%) attending the meetings online. This huge spike in interest led to the most attended semester in AHSS club history. Two of our live streamed events were sell outs, with the number of online students attempting to attend exceeding the 100 person cap of the online meeting room.

One important question was whether or not the live streams were useful to the online attendees. To answer this question, we surveyed both seated and online attendees regarding their likelihood of attending a future club event. When asked how likely they would be to attend a future event on a four-point-scale (with higher numbers indicating a higher likelihood), the location of the event did not matter to campus-based attendees (M = 3.15 for online attendance, M = 3.31 for attending on campus. However, online attendees were significantly more likely to report they would attend future club events held online (M = 3.65) than on campus (M = 2.77). Though no analysis was conducted, open ended responses generally suggested that this was due to lack of access, rather than motivation. In other words, without this technology, these online students would not have been able to participate in club events.

Spring 2017

In the Spring 2017 semester, the use of web conferencing was expanded to include more live streamed club events, as well as the creation of content solely for online students. The eight club meetings ranged in size from small events with less than 20 attendees to campus-wide events with over 100 participants. As in the fall, the eight live streamed club events were very well attended, with 252 of the 776 meeting participants (32%) attending the meetings in the online format. Along with eight blended club events, eight live stream events were provided solely for online students' consumption. These *online only* events included three tutoring sessions presented by campus writing center staff as well as multiple episodes of two interactive talk shows. Psychology instructor Liza Davis held live interviews and Q & A sessions with admissions counselors from two institutions to which our students frequently transfer.

Student success coach Michael Eure highlighted campus activities and resources available to students in his show. These *online only* events were popular as well, with 29 students attending the three webinar tutoring sessions provided by the writing center, 21 students attending the two episodes of *Lunch with Liza*, and 41 students attending the four episodes of *The Michael Eure Show*. In all, 343 students participated in live streaming activities during the spring semester, a slight increase over the record online attendance in the fall semester.

Discussion

In the Fall 2016 semester, attendance data and student evaluations demonstrated a need for interactive live streaming of club events for online students, who appeared to enjoy attending and blending into the live events as much as the live attendees. Student interest in these events was strong, often matching or exceeding live attendance. Furthermore, online student survey responses suggested that web conferencing was the only method available to them for attending these extracurricular events. The use of Adobe Connect was expanded during the Spring 2017 semester to include tutoring workshops, success coaching, and minority engagement activities. Attendance from these spring events demonstrated the value of expanding these activities. A fully developed live stream program, *EagleStream* is planned for the Fall 2017 semester, incorporating student government events along with club meetings, tutoring sessions, and an expanded live stream TV schedule. All of these events will occur within a more organized programming schedule to create an even larger live stream audience.

A matured vision of interactive live streaming

The lesson learned during the 2016/2017 year is that there is no “one size fits all” strategy providing a rich interactive live stream experience for students. Initial live streaming efforts have involved only the use of Adobe Connect web conferencing software. While Adobe Connect and other web conferencing software allows for incredibly rich interactive activities, these capabilities are not necessary for every online meeting. This increased functionality appears to come with a cost, as audio and other bandwidth problems seemed to occur more often as the number of attendees and complexity of interaction increases. However, larger campus-wide events don’t always require the interactive sophistication of small meetings. In these situations, less interactive but more robust live streaming tools such as Youtube and Facebook Live may be more appropriate. As our live stream programming matures, it will increasingly involve multiple tools depending on the situational needs. But no matter what the form, it is time to use interactive technology to begin transforming our campuses to accommodate the expanding population of students who choose to learn online.

References

Allen, I. & Seamon , J. (2014) Grade Change: Tracking Online Learning in the United States Wellesley, MA: Babson College/Sloan Foundation

Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. *International Review of Research in Open and Distance Learning,* 4(2), 9-14.

Bernard, R.M., Abrami, P.C., Lou, Y., Borokovski, E., Wande, A., Tamim, R.M., Surkes, M.A., et al. A meta-analysis of three types of interaction treatments in distance education.*Review of Educational Research,* 79, 1243-1289.

Curry, D.. (2000). Collaborative, Connected and Experiential Learning: Reflections of an Online Learner, Retrieved Nov 29, 2016, from https://www.learntechlib.org/p/93163/ https://www.gse.upenn.edu/equity/sites/gse.upenn.edu.equity/files/publications/bmss.pdf

Article location: https://dtlconference.wisc.edu/resources/

Holden, J.T. & Westfall, P.J. (2006). *An instructional media selection guide for distance learning.* Boston: United States Distance Learning Association.

Jaggers, S. & Hu, D. (2016) How do online course design features influence student performance? *Computers and Education*, 95, 270-284.

Roddenberry, C. & Kallimanis, A. (2016) Adobe Connect as a tool for creating classroom interaction in online education: Year two of an applied benchmarking study. Presentation at Annual Spring Professional Development Conference.

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