A+sync = New Norm for Online Learning?

by Mag Webber

Online learning at the higher education level has grown in leaps and bounds in recent years. Since MIT lead the charge by offering course materials for its entire curriculum free for all to view via the Web, many universities and private institutions have followed by making content available and also offering many totally online courses. The University of Phoenix has grown since its inception in 1976 and is now the largest private university in the United States, serving over 330,000 students with 200,000 attending online (Bonk, 2009). Western Governors University, established in 1997 to provide access to education to rural students in 19 western states, is a completely online university with over 15,000 students now enrolled (Western Governors University, 2010, February 25). Capella University is a privately-owned for profit online university based in Minneapolis, Minnesota that offers 114 graduate and undergraduate specializations and 15 certificate programs with over 1050 online courses. More than 28,100 learners are enrolled from all 50 states and 55 other countries (Capella University, 2010, February 27).

As the number of students of online learning increases, the quality of interactions involved in the learning experience becomes an important issue. A major concern of online students is that they often feel isolated and disconnected from their instructor and fellow students (Park and Bonk, 2007, Winter). Research indicates that social interaction is fundamental to cognitive growth and further stresses that exchanges between teachers and student and between students and their peers are among the most important social interactions in educational settings. Additionally, feelings of isolation can lead to lack of self-efficacy and result in poor performance (Bruning et al, 2004). Asynchronous instruction was the mode for many years in online classes with communication done via postings at independent times. In recent years, to create more authentic social interactions, synchronous interactions such as conference calls and online class sessions via Adobe Connect Pro™ (formerly Breeze™) that include webcam sharing, have been added to asynchronous classes by some online instructors. This paper coins the term for this type of training delivery medium as A+sync. If A+sync training methodology successfully diffuses student feelings of isolation, maintains self-efficacy and leads to greater overall satisfaction with online classes than asynchronous learning alone, A+sync may quickly become the new norm.

To validate or dispute this notion, a survey was conducted that compared the impact of entirely asynchronous online training delivery to that of asynchronous with synchronous elements added (A+sync). Current online higher education students were the primary target audience for the survey with online instructors included as a secondary audience. In general, the survey attempted to discover:

1. Do students have a higher satisfaction level with A+sync online classes than they do with totally asynchronous classes?
2. If they do have a higher satisfaction level with A+sync online classes, why do they? If they prefer totally asynchronous online classes, why do they?
3. Do instructors of online classes feel that there are differences in the effectiveness of entirely asynchronous and A+sync classes that affect student learning? If they do feel there are differences, how do they compare and what, if anything, should be done to accommodate them?

See Appendix A for a complete list of survey questions and possible response choices.

Methods

The data for this study come from selected online students who were enrolled in February, 2010, in Indiana University's Instructional System Technology (IST) masters and doctoral program and from selected online instructors in Indiana University's IST program and others in private industry. Participation in the survey was entirely voluntary for both groups and was done via online survey software during February, 2010. Of 21 students who received the survey, eight responded, and four of ten instructors who received the survey participated and provided feedback. While the numbers in both groups are not a large population they are representative of a dedicated student and instructor body who are actively engaged in 2010 in online education. Their feedback is relevant because online education is changing so rapidly that data from even as recently as 2008 may reflect trends that are no longer accurate in 2010.

Results

Student perspective:

To gain an insight on how much experience they had in online learning courses of both asynchronous only and A+sync, students were asked how many of each type of courses they have attended. There was little difference in these data that showed all students had attended at least one of each type and over half had attended between 1 and 5 of each type. They were then asked to rate the courses they had attended of each type with results as shown below.

How positively did you rate asynchronous only courses?	# of Responses	# of Responses	How positively did you rate asynchronous courses with at least one synchronous element?
Very Positive	2	5	Very Positive
Positive	4	2	Positive
Not Very Positive	2	0	Not Very Positive

Analysis of the data confirmed what others have found in previous studies of a similar nature that students feel more positively about A+sync courses than asynchronous courses without synchronous elements (Park and Bonk, 2007, Winter; Park and Bonk, 2007).

Students were then asked to rate the two types of courses as to how successfully they create an effective learning environment. The data shown in the table below indicated a significant difference in this area. Of particular interest is that all respondents either agreed or strongly agreed that A+sync courses create an effective learning environment and none were undecided, disagreed or strongly disagreed. This was in stark contrast when compared to ratings about asynchronous only courses in which half of the respondents either disagreed or strongly disagreed that asynchronous only courses create an effective learning environment and only two respondents strongly agreed or agreed.

Totally asynchronous courses create effective learning environments	# of Responses	# of Responses	Asynchronous courses with at least one synchronous element create effective learning environments
Strongly Agree	1	3	Strongly Agree
Agree	1	5	Agree
Undecided	2	0	Undecided

Disagree	3	0	Disagree
Strongly Disagree	1	0	Strongly Disagree

Additionally, when asked if they would recommend that their peers attend future online training courses delivered entirely asynchronously, three students indicated that they would and five indicated they would not. On the other hand, when asked the same question about A+sync courses, 100% of student respondents indicated they would recommend this type of course to their peers in the future. This unanimous endorsement of A+sync courses is key to the findings of this study because recommendations to fellow students go beyond one's own personal world and place one's choices in a vulnerable position that is subject to peer criticism on an ongoing basis.

When asked if there was anything they would change in future courses of both types related to delivery methods, Student Respondent #4 stated about entirely asynchronous courses:

> "I think there needs to be some form of visual and auditory learning in all classes. The two classes I had like this were almost strictly readings and postings, without any other interaction from the teacher. One of the classes started to use some videos which helped give a little variety, but it was still pretty dry."

About A+sync type courses, the same Student Respondent #4 wrote:

> "I really like the blend of async with some sync video chat or at least audio. It is hard to feel connected with students and professors if you don't even know what they look like or what their voice sounds like."

In addition, Student Respondent #3 answered an open-ended question asking for comments regarding online training delivery methods as follows:

> "Learning, learning styles and the learners should always be the top consideration when developing and designing online training or course work. Every class can be converted to an online environment if time is taken to do it right and consider delivering using the proper synchronous tools."

Instructor perspective:

When asked how many entirely asynchronous courses and A+sync courses they had taught, only one Instructor Respondent indicated that s/he had taught an A+sync type online course. Conversely all Instructor Respondents had taught at least one and most had taught between one and five entirely asynchronous online course. These data could be attributed to the lack of opportunity instructors have available to teach A+sync courses, or they may instead show an unwillingness to incorporate asynchronous elements in synchronous courses, and therefore the Instructor Respondents may have a bias against A+sync courses. In support of the latter theory, verbatim answers from Instructor Respondents #1 and #4 respectively indicated they may not be open to consideration of teaching A+sync courses. When asked open-ended questions related to changes that they may make in future courses, Instructor Respondent #1 advised:

> "…I keep looking to change the ease of use and their reduction of overload in synchronous tools. Undoubtedly my students love the immediacy and fluidity of synchronous communication, but they hate the passwords and URLs and different formats, commands and expectations - - they hate the net glitches and voice echoes and problems with turn-taking for multiple people."

Similarly, Instructor Respondent #4 stated in part:

> "If crafted correctly, a completely asynchronous class can be an effective learning environment. The key is course design. …."

Summarizing responses from the higher education online instructors to other delivery comparison questions on the survey showed little distinction between asynchronous only course delivery and A+sync course delivery as far as their impact on student effectiveness. See examples in the two tables below.

Totally asynchronous courses create effective learning environments	# of Responses	# of Responses	Asynchronous courses with at least one synchronous element create effective learning environments
Strongly Agree	1	1	Strongly Agree
Agree	2	1	Agree
Undecided	1	1	Undecided
Disagree	0	0	Disagree
Strongly Disagree	0	0	Strongly Disagree

Would you recommend to your peers that they teach future online training courses delivered entirely asynchronously?	# of Responses	# of Responses	Would you recommend to your peers that they teach future online asynchronous courses delivered with at least one synchronous class meeting?
Yes	3	2	Yes
No	1	0	No

Limitations

Limitations in this study require that caution be exercised when generalizing the results to all online higher education students and instructors.

- The study represents only a small sampling of current online students from Indiana University's IST program and instructors with the majority also from Indiana University's IST program.
- Despite the fact that random sampling is widely considered the best method of gathering data as the basis for making inferences (Dattalo,2010), all students and instructors surveyed in this study were hand-selected.
- The author of this study was a student in Indiana University's IST program which may have caused biases in data analysis and conclusions drawn.

Discussion and Implications

The findings from this study point to three conclusions:

1. *Online higher education students perceive that asynchronous courses create a more effective learning environment when synchronous elements are included as described by the term A+sync*. Online students desire synchronous interactions of some type be included in online asynchronous courses, and prefer those that include human voices and faces in a real-time setting. Adobe Connect Pro is currently in vogue in many educational and private institutions because it is tailored for educational class sessions and offers flexibility and ease in sharing presentations and audio/video with multiple users. Other software that may be used in the future includes Fuze™ meeting, Skype™, GoToMeeting.com™.
2. *Online students have a more positive view than online instructors about the use of asynchronous elements in higher education classes.* Despite research to the contrary, some instructors hold a negative view that technical difficulties, unstable delivery formats and other uncontrollable features of asynchronous class sessions create less than optimal online learning settings, and thus are neither worth their time and effort nor that of their students. This disconnect between students and instructors should be disconcerting for instructors who understand the far-reaching self-efficacy and performance related problems that may occur when students feel isolated from their online instructors and peers. Instructors should work together to develop collective standards for online asynchronous delivery skills as they do other professional development skills in an effort to continue raising the bar for continuous improvement of online training.
3. *Online higher education students are more likely to enroll in and recommend that their peers enroll in future online courses that include asynchronous elements*. This finding should serve as a heads-up for universities and private institutions that are competing for the growing population of online higher education students in 2010 and beyond. Those who want to attract and maintain high level online students need to be assured that they will receive a worthwhile return on their investment if they make the extra effort to provide technical support and resources such as hardware, software and technical assistants for instructors for asynchronous course elements and sessions.

Conclusion

This study examined the impact of asynchronous only teaching delivery to that of asynchronous with synchronous elements added (A+sync) from both a student and instructor point of view. Overall, the results of the study showed that students felt that A+sync online courses created a more effective learning environment and were more positive about them than they were about asynchronous only courses. However, most online instructors who were interviewed were not in total agreement with students about the impact of A+sync courses and felt that time invested in asynchronous sessions was not well-spent. These findings indicate that instructors should continue to incorporate asynchronous elements in their online course delivery in order to help students remain engaged as they develop social interactions in online learning akin to that of classroom learning. Further, as universities compete for online students in 2010 and beyond, they should make an effort to encourage instructors to provide the highest level of online synchronous training that includes asynchronous elements (A+sync) by supporting them with technical assistance and resources.

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Appendix A

Student & Instructor Survey Questions & Response Choices *(Differences between student & instructor questions shown in italics)*
1) Questions 1-9 deal with online training courses that are delivered entirely asynchronously, without any virtual, face-to-face or conference call class meetings. Have you been *a student in this type of course* (*taught this type of course)?* Yes No
2) If you answered Yes to Question #1, *what type of organization were you a member of (in what type of organization did you teach)?* Primary/Secondary Education Higher Education Business or Industry Other
3) If you answered Yes to Question #1, approximately how many courses of this type have you *attended (taught)?* 1 – 5 6 – 10 More than 10
4) If you answered Yes to Question #1, what age range were you in when you *attended the course (taught the course)?* 18 – 25 26 – 45 46 – 60 Over 60
5) If you answered Yes to Question #1, what *is your educational background (was the average educational background of the students)?* Less than High School High School Degree or GED Technical Degree Some College College Degree
6) On average, how positively *did you rate the courses (were student evaluations)?* Not Very Positive Positive Very Positive
7) If asked by your peers, would you recommend that they *attend (teach)* future online training courses delivered entirely asynchronously, without any virtual, face-to-face or conference call class meetings? Yes No
8) Please indicate how much you agree or disagree with the following statement: Online training courses that are delivered entirely asynchronously create an effective environment for student learning. Strongly Disagree Disagree Undecided Agree Strongly Agree

9) What would you change, if anything, in future courses of this type related to the delivery methods?
10) Questions 10 - 18 deal with online training courses that include at least one synchronous virtual, face-to-face or conference call class meetings. Have you *been a student in this type of course* (*taught this type of course)*? Yes No
11) If you answered Yes to Question #10, *what type of organization were you a member of (in what type of organization did you teach)*? Primary/Secondary Education Higher Education Business or Industry Other
12) If you answered Yes to Question #10, approximately how many courses of this type have you *attended (taught)?* 1 – 5 6 – 10 More than 10
13) If you answered Yes to Question #10, what age range were you in when you *attended (taught)* the course? 18 – 25 26 – 45 46 – 60 Over 60
14) If you answered Yes to Question #10, what *is your educational background (was the average educational background of the students)?* Less than High School High School Degree or GED Technical Degree Some College College Degree
15) On average, how positively *did you rate the courses (were student evaluations)?* Not Very Positive Positive Very Positive
16) What would you change, if anything, in future courses of this type related to the delivery methods?
17) If asked by your peers, would you recommend that they *attend (teach)* future online training courses delivered with at least one synchronous class meeting? Yes No
18) Please indicate how much you agree or disagree with the following statement: Online training courses that include at least one synchronous class meeting create an effective environment for student learning. Strongly Disagree Disagree Undecided Agree

Strongly Agree
19) Please provide any additional comments you have regarding online training delivery methods.