The Overall Effect of Online Audio Conferencing in Communication Courses: What do Students Really Think?

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Abstract

The use of online ancillary tools in technology based pedagogy is growing. This paper examines student reactions to an online audio conferencing tool used as a part of both online and traditional communication courses. Students were e-mailed four broad, open-ended questions to gather the most authentic reactions to their experience with the conferencing tool. Most frequently, students cited convenience and increased interactivity as positive aspects of using the conferencing tool. "Technological problems" was the most frequently cited drawback to the tool.

Key Words: instruction, interactivity, convenience, learning

Technology for Technology's Sake?

No one would argue that there is a seemingly never-ending stream of new technologies introduced into our lives. Our personal communication tools are ever changing and the options available to us are ever growing. This same evolution of technology is apparent in the college classroom. Where one was once considered an innovator when using an overhead projector, now new tools for synchronous and asynchronous online communication technology are beckoning to educators. The question for educators is no longer, "should I use technology in the classroom?" It is now, "how can I best use technology in the classroom?"

One of the most challenging aspects of pedagogical design decision making is when to use which technological tool. Depending upon one's home institution, there could be a plethora of choices available to an instructor or there could be very few. With instructional budgets constantly shrinking, choosing which technologies to lease or buy, and which to support, becomes a complicated budgetary issue for an institution. Other budgetary concerns motivate campuses to become less tied to the brick and mortar structure, and more prone to explore and support online and "anytime, anyplace instruction." These issues should create a synergistic environment for exploring new instructional technologies, but that is not always the case. Just as one would need to justify any expenditure, one must justify the use of distance delivery tools. But from whose frame of reference should that justification be made: the student's or the instructor's?

This study attempts to show that an instructional tool utilized by a distance learning instructor to enhance online and traditional communication courses is also appreciated by students. Elluminate Live!, a synchronous online conferencing system, is a user friendly way to create the element of audible spontaneous interaction in an online course. It adds a new level of interaction often missing from a traditional online course, where most interaction is not spontaneous due to the asynchronous nature of text based discussion forum postings and e-mail. Online audio conferencing serves to augment and enrich traditional courses as well. It allows students in traditional courses to expand their availability to classmates for interactive learning applications and to expand their business technology tool kit as they prepare to enter the New Millennium "real world." Knowing that instructors and students believe the tool truly enhances the learning process may help an institution justify the price of a multiyear site license.

Online Conferencing and Web Instruction

The traditional instructional environment allows instructors to use their knowledge of nonverbal cues to judge the level of interest and involvement students are experiencing in their course. Instructors who care about the issues of retention and involvement are aware that "keeping students engaged does correlate directly with course completion," (Hitch & Hirsch, 2001: 17).

Creating an engaging atmosphere is more challenging in an online delivery modality. Research indicated that streaming live lectures using video/audio conferencing systems is considered a positive education strategy by both instructors and students (Teng & Taveras, 2004). Using conferencing creates an interactive environment for the online learner. This interaction between the instructor and the student, and between students themselves, is found to be at the heart of effective online teaching (Lewis & Abdul-Hamid, 2006).

If one accepts that students' satisfaction with online courses is influenced by "…instructor knowledge and facilitation, interaction and instructor feedback," and instructor feedback is found to affect perceived learning outcomes, then employing a tool that will enable the instructor to give immediate clarification and feedback should enhance satisfaction and learning outcomes (Eom et al, 2006:228).

Cofield's (2002) research of students' reactions to video-streaming reported that the video clips helped to hold undergraduate and high school students' attention in an online course better than text material alone. Students who were interviewed mentioned that the clips created "feeling of the instructor's presence," regardless of the clip quality. While video streaming is found to be an effective tool, one must consider accessibility issues that are inherent with the bandwidth necessary for effective transmission.

Audio conferencing has been shown to create a sense of connection and participation among graduate students in Social Work (Page et al, 2003). Most importantly, these students reported that using the tool also helped them to learn about supervision, the course content. Convenience and connection were cited as the most positive aspects of using the system, while technological problems, and changing their discussion behaviors to accommodate the system, passing the "mic" and waiting to talk, were the more negative aspects.

Maushak & Ou (2007) examined the role of Instant Messaging (IM) in collaboration in an online course. They discovered that "synchronous communication was proven to greatly facilitate student's online collaboration." Both of these studies demonstrate that students appreciate new forms of synchronous communication in their online courses, and one wonders if integrating common forms of daily communication, IM-ing and talking "on the phone," help to make the physical process of learning appear to be natural, which in turn makes it less intrusive to the learner?

Of course, all institutions must evaluate the cost of incorporating an online tool. As online learning evolves into something more than a series of documents to be read and responses to be posted, schools must consider issues such as the technological infrastructure that serves not only their own institution, but the surrounding community, the accessibility of hardware, system support, and ease of use (Driscoll, 2007). If one uses a tool that is fully hosted offsite, the system support and some infrastructure costs are included in the site license. Such is the case with the tool used in this study, Elluminate Live!

The Elluminate Live! System

Elluminate Live! Is an online conferencing system that is licensed to professional and academic organizations (www.elluminate.com). The system has a number of features that allow for significant interaction between participants. Synchronous audio, video, whiteboard, graphic slide presentation, chat, application sharing, polling and emoticon responses are some of the features available to create a varied and rich interaction experience in an online environment. A recording function enables a session to be replayed at a later time for those participants who are unable to attend the live session. Having a synchronous and asynchronous aspect makes this system extremely useful for online pedagogy support. The system is low bandwidth, which accommodates slower user connection speeds. This, in turn, opens accessibility to more users, which is a vital concern when an institution is hoping to reach beyond campus networks in order to increase enrollment.

Elluminate is accessed via the Elluminate site, which means that there are no server requirements for use. All site support is handled by Elluminate, as is all training. A site license allows an organization to access unlimited 24/7 support and training in live, recorded, and PDF formats.

Along with access to the Internet, a user needs a USB microphone/headset in order to converse using the Elluminate system. A webcam will allow for video broadcast, but the low bandwidth causes poor video quality. In fact, users are able to participate in an Elluminate session without a microphone/headset by simply using their computer speakers to listen and typing their responses in the chat section of the Elluminate interface.

Interacting on the Elluminate system is designed to mimic behaviors used in a traditional classroom and behaviors used during online communication. Students indicate a desire to talk by clicking on a "raise hand" button, they "Instant Message (IM)" using a chat function, and may draw on the whiteboard. Therefore, students transfer longtime integrated behaviors into the new environment creating an immediate feeling of familiarity with the system. The moderator, usually the instructor in an academic setting, retains control of the various system tools, but is also able to share that control with others in the session. By simply right clicking on a participant name, that participant becomes a moderator who has the same control as the instructor. This allows the student to lead a meeting, deliver a presentation, or facilitate a discussion.

Elluminate uses in this study

This author uses Elluminate to augment both online and traditional instruction. Online instruction is augmented by weekly discussion sessions where course content is clarified and assignments are discussed in detail. In recent online courses a recording of the session was made and archived on the Elluminate site so that students who had scheduling conflicts that prevented their participation in the live sessions were able to glean important information from the recording at a time that was more convenient for them. Some instructors use Elluminate Live to hold virtual office hours, although this instructor did not (Bedord, 2007).

In her traditional instruction, this author uses Elluminate to deliver course content and as part of a course assignment. After experiencing a number of Elluminate facilitated content sessions led by the instructor, student groups are required to lead an online meeting using Elluminate, which must culminate in a decision making experience for the class. This assignment element forces the student meeting facilitators to use multiple aspects of the conferencing system. The instructor uses Elluminate in other traditional courses to facilitate group projects by providing a place for groups to work together that is synchronous, but not place bound, but only those students in online courses and in traditional courses where Elluminate usage was required were surveyed for this study.

Student Reactions to Elluminate

Online students who had access to Elluminate and traditional students who were required to use Elluminate were surveyed via e-mail by their instructor. Blanket e-mails were sent to all the students registered in course sections that used Elluminate over the three quarters. In Spring 2007, the instructor used Elluminate to augment a traditional section of Speaking In Professional Contexts. In Summer 2007, the instructor used Elluminate for an online hybrid section of Essentials of Public Address and an online section of Survey of Communication Research. In Fall 2007, she used Elluminate to augment an online section of Survey of Communication Research and a traditional section of Speaking in Professional Contexts.

The e-mail survey asked students if they attended the Elluminate sessions and for general reactions to the usefulness of the system. The sessions in Summer 2007 and the Speaking In Professional Contexts sessions were not recorded for students to access asynchronously. The Fall session of Survey of Communication Research was recorded for asynchronous access.

Overall, 37% (38 of 103) of all students contacted, online and traditional, responded to the e-mail. No e-mail prompts or reminders were sent, and there was no incentive given to those students currently enrolled in a course with the instructor. Online courses had 38% of students contacted responding, the hybrid course had 23.5% of students contacted responding, and the traditional course had 41% of students contacted responding.

Students were asked the following questions:

1. Did you take advantage of our sessions?
2. If you did, what did you like about them?
3. What didn't you like about them?
4. Finally, did you find the sessions helpful? Or
5. Finally, did you find the system easy to use for your presentation?

The last question was changed for those students who used Elluminate in a traditional course. The sessions did not play an integral part in communicating and clarifying course content, but did play an integral part in demonstrating competency in delivering a message with technology.

Questions that were included in the e-mail were purposefully broad. It was the author's intention to gather the most authentic responses from the students without presupposing any direction or content of a response via a more focused question format.

Only two students who responded did not take advantage of the Elluminate sessions. Four students enrolled in the Survey of Communication Research course could not attend the live sessions, but listened to the recordings archived on the Elluminate site.

Students reported a number of positive aspects associated with the use of the Elluminate Live! synchronous conferencing tool, as shown in the following table:

Positive Aspects of Elluminate Live!	# of responses
Interactivity	13
Not having to leave home or office/ Participate from anywhere	13
Using interface tools (whiteboard, chat, emoticons)	5
Ease of use	5
Group meetings were easier to schedule than face to face	4
Helped create understanding of information	3
Learning how to use technology	3
Immediate response from professor	3
Saving travel time to campus	2
Change of pace from ordinary classroom	2
Felt like you were in a classroom	2

The following positive aspects of Elluminate appeared as single responses:

> No parking inconvenience, More disciplined discussion format, Hear the professor's voice, Made material more "3-D", Easy to judge the opinions of the class, New experience, Fun, Pay attention better due to presence of computer screen

Students were also asked to provide any negative aspects of their experience with Elluminate Live! The following table illustrates their responses:

Negative Aspects of Elluminate Live!	# of responses
Technical difficulties	5
Audio problems	4
Waiting to talk	3
Missed personal interaction	3
Sessions were a "little long"	2
No complete open forum for participation	2
Accessing PowerPoint and applications for presentations	2

The following negative aspects of Elluminate appeared as single responses:

> Computers on campus were inconsistent, Chat message window too small, Typing things out because "I didn't have a mic," Some confusion with the message because it was not face to face, Waiting for responses to be typed, frustrated with the "talk" button, Some participants "didn't know what they were doing," "Complicated to use at first."

The last question for students in the hybrid and online courses asked if the student found the sessions helpful. The following table illustrates their responses:

Helpfulness to hybrid and online students	# of responses
very	6
yes	6
absolutely	2
extremely	1

The last question for the students in the traditional class that required them to lead an Elluminate session asked if they found the system easy to use for their presentation. No one reported that the system was difficult to use. The following table illustrates the student responses:

Ease of use for student presentations	# of responses
Yes	12
Very easy	3
Surprisingly easy	1
Extremely easy	1

There was only one student who responded who stated that he did not like using the Elluminate system.

Overall, the responses from both online and traditional students point to a positive experience with Elluminate. The positive experience was dominated by creating an avenue for interaction in a learning environment that is not always considered spontaneously interactive. The students liked the

convenience, ease of use, and novelty of the system, along with the interactive aspect.

Drawbacks to the system were technical in nature, and one must wonder if the technical difficulties referenced were due to the Elluminate system or individual user situations, such as connection speed, quality of hardware, adaptation to the system.

Does Elluminate enhance learning?

Overwhelmingly, students found the interactive Elluminate sessions to be positive, supporting the findings of Page et al (2003). If one accepts the findings in Eom et al (2006), the student reaction to various aspects of interactivity within the system allows one to conclude that the students should have enhanced their learning within the courses. The Eom et al study was also supported by students who mentioned that receiving immediate feedback from the instructor was a positive aspect of using Elluminate. Coupling this finding with the feedback gathered in this study which demonstrates that Elluminate helped to clarify course material for students further emphasizes that Elluminate assists in the learning process.

Looking at some of the student comments in more detail gives insight as to the impact of the system as a pedagogical tool:

> *"I thought the sessions were helpful, but were an optional supplement to the course. I would definitely not base a class entirely off of it, as some people would not be able to adapt technically, or psychologically. However, using it as an addition to a normal online class is a good choice and a great investment."*

This comment addresses a number of interesting aspects of using Elluminate in an online course. The student mentions that the technical and psychological predisposition of students is important to consider when using Elluminate as the sole delivery method of a course. This appears to be contrary to the positive tone of the findings, but mimics the reaction some instructors have to using any technology in their courses. The student also mentions the use of the tool is a "good choice and a great investment," which reflects understanding of the cost involved with such a tool.

> *"I found the sessions to be very helpful. It helped me understand the book and the class much better. I wish ALL my online classes would've used or can use Elluminate. I 've taken several online classes and this was the first time I've ever known a class to use it."*

This comment calls for universal use of the tool, especially as it pertains to learning material in an online course. The student reinforces the role of spontaneous instructor feedback in course satisfaction. It also reinforces the seamless integration of the system into an online learning context. While the tool was not integrated into the course management system, it remained easy to access and utilize, making it appear to be a vital part of the course structure.

> *"I loved that even though this was an internet class, I was able to participate in class discussions. I also appreciated the fact that if I had questions or concerns, they were immediately addressed during the Elluminate session. I also like the powerpoint presentations. I didn't feel as if I was left on my own devices for the class. The best benefit for me was, I able to listen to the lectures while I was at work. I was not taking time away from the office and yet still able to participate in the class discussions."*

> *"I liked the ability to listen and ask questions at the same time. It was more similar to an actual classroom experience with the conveience [sic] of being at home or work! I also appreciated the difference between this type and other online classes, being more interactive."*

Interactivity and convenience are highlighted in the above comments, erasing the line between home and work. These comments present interesting ethical questions for the educator. One wonders; could role strain be present and actually impede learning if students are multitasking to this degree? Is participating in an Elluminate session at work much like sending a text message while you are driving? Or, is it really any different than any online course, where students may access the information truly at

any time, anywhere, making this role strain question applicable across online learning contexts and tools?

The following comments were made by a student in a traditional section who was required to use Elluminate Live!:

> *"There was a lot more discipline which was nice because it gave everybody an equal chance to talk and there was nobody interrupting [sic] you because only one person could talk at a time but you could still IM people which was nice. Yeah I actually really liked being able to do the presentation online. For some people who don't like to talk in front of class that was great for them."*

These comments address the ability to ameliorate communication reticence in a class room, and to ensure that there is equitable participation from all members of the class. Any seasoned instructor would agree that these issues are common in communication classes. The ability to have a neutral third party (Elluminate Live!) act as a participation equalizer allows the instructor to act as content facilitator and expert as opposed to participation referee. The ability of a student to participate and ask questions in an environment that is less intimidating due to the relative anonymity that audio conferencing provides is clearly an important learning outcome.

Conclusion

The Elluminate Live! online audio conferencing tool is appreciated by students as it offers them a more interactive environment in which to learn, and more convenience as their learning environment is no longer place bound. Among the five groups of students surveyed for this study, only one student who responded did not appreciate the use of the online conferencing system. The comments made by the undergraduate communication students in this pilot study mirror those made by graduate social work students who were surveyed about their reactions to an online conferencing system, which begins to demonstrate some consistency in reaction across disciplines.

As institutions look to budget technology dollars in the best manner, examining student perceptions of learning is vital. Gathering statistical evidence of improved learning or competency acquisition by those students who utilized the Elluminate Live! System would be the logical next step in this line of research. Positive affect coupled with positive learning outcomes would demonstrate that the cost of a site license is well worth the expense for a learning centered institution.

The aspect of role strain uncovered in the qualitative student comments is an interesting issue for online educators. What, if any, are the ramifications of making learning too convenient? What is the quality of content acquisition and competency integration while multi-tasking to a great degree? Put plainly, is real learning taking place or are our students simply completing tasks toward a goal? As online educators who are truly committed to authentic and lasting student learning it is important that studies be implemented to address those concerns.

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