Online Teaching and Learning at the Graduate School Level: Student Perceptions on Discussion Boards v. Synchronous Communication

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ABSTRACT
This paper examines a group of graduate students and their previous experiences with online education, various teaching and learning online tools, and their perceptions on the effectiveness of these tools as it relates to their learning, interpersonal skills and communication. This paper presents the graduate student’s self-reported educational experience at a regional state university in the southeast United States in a 100% online Master’s Degree program. The data was collected through the use of a 28 open-ended question survey, which was completed by a group of 127 graduate students and the findings produced six main findings, which were:

1) The respondents indicated at a high percentage (85%) a high level (level 4, 5 and 6) of technology use and understanding.
2) The majority of the respondents (97%) indicated they preferred live synchronous sessions rather than discussion boards for learning content and communication.
3) The majority of the respondents (72%) indicated that when choosing future courses, the inclusion of discussion boards in a course was not important (34%) or somewhat unimportant (38%).
4) 100% of the respondents indicated that Live Elluminate Sessions were Highly Effective (65%) or Somewhat Effective (35%), as it pertained to understanding the content.
5) Respondents indicated that 59% (12% Highly Effective, 47% Somewhat Effective) of the respondents indicated discussion boards as an impactful way of learning content at the graduate level. It also shows that 41% (22% Somewhat Ineffective, 19% Not Effective).

This study helps universities identify the importance of synchronous learning in a digital format when delivering online teaching and learning. There is a clear change in the needs of students enrolled in 100% online courses, which will force university faculty to increase the synchronous interaction between them and their students and between the students and their peers.

Keywords: Synchronous learning, discussion boards, Blackboard Elluminate.

INTRODUCTION
In the 1840’s, Sir Isaac Pitman, who was an instructor of shorthand, taught this form of shorthand by mailing his students notecards containing a message in shorthand and then have the students mail it back to him translated back to the original longhand English version of the message [11]. That is the earliest recorded version of distance education however, in today’s version of distance education, the creativity is similar but the delivery systems are much more complex and convenient for both student and teacher. With the explosion of technology that has pushed society into a digital age, teaching and learning at the University level is at the epicenter of this explosion [4]. College students are more savvy and diversified when it comes to using technology as a tool for communication and learning. Coupled with the explosion in popularity of social media, email, which recently was considered a technologically savvy way of communicating, has taken a back seat to Twitter, Instagram, and Facebook. “Everyday life is full of opportunities to communicate, and increasingly much of this takes place online. While some of us make use of email to keep in touch with friends, and often dread the numbers of emails we receive for work, others are used to keeping in touch throughout the day with their friends, using instant messaging or social Networking” [6]. This type of communication has made its way into academia and student/instructor interactions and communication.

These are just a few ways college students are staying connected to the world around them. Having a strong grasp of technology is a critical skill for students and faculty but having human communication and contact is still critical to the growth and learning for college students. In this very fast and competitive world, colleges and universities are not just competing for their local and regional student base anymore. Online learning has given access to students who might not have had the opportunity to attend college because of a variety of reasons, one of these reasons is their geographic location. This is why colleges and universities are competing with other colleges and universities on a global scale [1]. Online universities and traditional universities are all striving for the same student. Some universities have marketing firms and outside companies that help them promote and enroll students into programs, which, in some cases, have been labeled as convenient and affordable. The pressure to generate revenue at the university level is very high and in the recent economic downturn and recovery, higher education administrators are putting the pressure on various programs to get as many students in and out of their online programs to help other low-revenue generating programs stay afloat [2]. Now, this is obviously not all programs or universities, but in this study the respondents were graduate students.
enrolled in a 100% online M.Ed. in Educational Leadership Program which is offered at a state university in the southeast United States of America. This Educational Leadership Program switched from a traditional program to an on-line format recently and the enrollment went from 112 students to just under 700 in two years. This influx of students and the focus on generating revenue has made the learning experience for these students to be very generic and less engaging. The researcher investigated the perceptions of graduate students on the value of online education, synchronous communication and learning and how this compares to non-verbal asynchronous teaching and learning. “All courses, whether they are studied at university or college contain course content, that is, knowledge about the subject which students are expected to understand and occasionally to learn by heart: and depending on the course, that content might be knowledge about everyday life in mediaeval times, or plant biology, or perhaps musical notation” [6]. This statement gives a clear example of where some university faculty members are as it pertains to technology and its appropriate uses as a tool for teaching. While this technology boom has presented its challenges, the need for human contact and communication still seems to be paramount for the growth of people in general. “The information age presents many challenges for those in education and government. The need for the whole population to be able to access and use new technologies such as computers, the internet and digital television is often seen as crucial to establishing a skilled workforce and empowered citizenry for the twenty-first century. The potential of these new technologies to allow people to learn throughout the life-course is also seen as a ready means of establishing developed countries as learning societies”. Governments around the world have therefore set targets and developed policies to help all adults to learn, work and live with the support of information and communications technologies (ICTs)” [9]. In this medium of online education, more attention has been on content and information rather than human interaction and communication [8]. Online education allows students to take courses that do not require a set schedule and sometimes allows the student to work at their own pace. There is still a place for human contact and interaction even in 100% online learning [3].

3) Do students prefer synchronous or asynchronous tools when learning new content?
4) Does synchronous or asynchronous communication between faculty and students increase student achievement?

METHODOLOGY
The participants consisted of 127 graduate students enrolled in a 100% online M.Ed. in Educational Leadership program at a regional state university in the southeast United States of America. The students were asked to complete a brief survey about the topic. Of the 127 students who were asked to participate 127 (100% return rate) responded and completed the survey. The responses were coded, collected and evaluated in Excel.

LIMITATIONS
This study only looked at graduate student at one university in a 100% online setting. Another limitation was that the respondents were not enrolled in any hybrid, blended or face-to-face courses.

FINDINGS
The data was collected and evaluated using Excel and the respondents indicated the following:

1) The respondents indicated at a high percentage (85%) a high level (level 4, 5 and 6) of technology use and understanding. The definitions for each technology understanding level were given to the respondents. Which were as follows:
   - Level 1:
     - Not able to comfortably use a computer
     - Unfamiliar with computers
     - Not at ease with a computer
     - Fearful of a computer
     - No knowledge of software
     - Basic concept of the internet
     - Cannot easily talk in terms of computing
   - Level 2:
     - Beginner
     - Can turn a computer on and off and use for simple tasks
     - Can look things up on the Net
     - Can send emails
     - Reasonable mouse or Trackpad skills
     - Familiar with some software
   - Level 3:
     - Can comfortably use a browser and tabs
     - Can create documents and simple spreadsheets
     - Can email with attachments and images
     - Can navigate the internet easily to find what they want
     - Can convert traditional approaches to straightforward electronic ones.
   - Level 4:
     - Is aware of social media and how to use it positively
     - Can create slide presentations and simple videos

STATEMENT OF THE PROBLEM
The purpose of this study was to investigate the perceptions of graduate students enrolled in a 100% online program about synchronous and asynchronous learning tools and the effectiveness and impact on their learning.
The survey was based on the following research questions:
1) Do students prefer synchronous or asynchronous communication with the professor?
2) Do students prefer synchronous or asynchronous communication with their peers?
- Knowledgeable about different software and its purposes
- Has a varied and comfortable approach to technology
- Uses a computer regularly for a variety of tasks
  Level 5:
  - Can show others how to do things on a computer
  - Can understand the implications of software and social media
  - Can think of tools, which will promote better use of technology
  - Can share ideas on the internet
  - Can manage technology in a public situation
  Level 6:
  - Very flexible in the use of a computer
  - No fear of unfamiliar ground in technology
  - Can troubleshoot confidently
  - Can understand how to use multiple tools for specific purposes
  - Trendsetter in technology

Figure 1

**Technology Understanding Level**

![Pie chart showing technology understanding levels](image)

2) Figure 2 shows the majority of the respondents (97%) indicated they preferred live synchronous sessions rather than discussion boards for communication.

Figure 2

**What is your opinion about the live Ellluminate Sessions on Elearning as it pertains to its effectiveness in helping you communicate with your peers and instructor?**

![Pie chart showing responses](image)

The respondents also provided narrative information about synchronous learning and how it impacts their learning: “I appreciate actually holding live discussions with peers and the instructor, but with the convenience of being online and not in person”, “Even though we may be taking courses from a distance, I feel that Ellluminate sessions better meet the personal needs of me as a student. I am able to make connections and establish relationships with my professor and fellow classmates.” and “Ellluminate sessions effectively bridge the gap between the traditional classroom setting and fully online courses. I have had the opportunity to get to know my professor through these sessions and feel comfortable contacting him if it is necessary. I have not had that level of comfort with any other professor. Through the sessions, I have been able to talk to people who would have otherwise just been a name on a discussion board. The sessions make me feel like part of the group rather than being on my own.”

3) Figure 3 indicates the majority of the respondents (72%) indicated that when choosing future courses, the inclusion of discussion boards in a course was not important (34%) or somewhat unimportant (38%).

Figure 3

**When choosing a course in the future, how important is it for the course to contain Discussion Boards as it pertains to you enrolling?**

![Pie chart showing responses](image)
4) Figure 4 indicates that 100% of the respondents indicated that Live Elluminate Sessions were Highly Effective (65%) or Somewhat Effective (35%), as it pertained to understanding the content.

There were narrative responses also associated with this item. Some of the responses were as follows: “Sometimes it is easier to understand content when it is explained by the professor. Personal experiences are often easier to communicate by speaking, rather than discussion boards”, “Again, the visuals through PowerPoint support the learning through discussions and increased interactions. I also appreciate that the lessons are archived for review”, and “The live sessions provide opportunities of the instructor to present information both visually through presentations and orally making material more understandable.”

5) Figure 5 indicates that 59% (12% Highly Effective, 47% Somewhat Effective) of the respondents indicated discussion boards as an impactful way of learning content at the graduate level. It also shows that 41% (22% Somewhat Ineffective, 19% Not Effective).

Narrative responses from the respondents were: “Effective as long as instructors don't carry it too far, such as requiring individuals to read all posts. Some even required replying to all posts! Such mandated interaction kills the spontaneous at-will communication these discussion boards are trying to recreate (like in real classrooms). When choice is taken away, a critical component is removed from the discussions making them less effective”, “I have not found that discussion boards have impacted my learning. While some information is presented, it is most often opinion-based responses rather than actual course content”, and “It's just mundane busy work that forces the user to engage in an unnatural interaction with others and I don't feel comfortable expressing how I really feel sometimes about the comments that others have made for fear that I might offend, We are constantly reminded about "netiquette" on the discussion board so this causes people to temper how what they might really think or feel, at least I know I have”.

6) Figure 6 indicates the overall preference of the respondents as it pertains to Discussion boards or Elluminate sessions as communication tools.
The respondents explained in their narrative responses: “It is easier to have discussions with our instructor and classmates. We are able to discuss any issues without having to wait for the other person to sign onto the computer and read the discussions”, “Live Elluminate Sessions provide a richer, engaging, educational environment and I would love to have the opportunity to participate in courses that offer this option over any course that chooses to rely on discussion boards for peer-to-peer communication or peer-to-teacher communication. I have been able to learn more about my cohorts and my professor through the sessions and therefore I feel much more connected to this group of peers than I have in any of the other classes that I have participated in. Communication with my peers allows me to associate more with them due to the active engagement this type of environment encourages. It makes my cohorts seem more personal and “real” to me”, and “Live Elluminate presentations is that I have learned how to collaborate effectively with people from across the state to create and present material to a group in an online format”, “Content is more easily explained via online Elluminate session versus discussion boards”, and “It is easier to understand content when it is explained verbally by the professor rather than when other students write about it. Other students are not always correct in their interpretation of content, but they are still free to post whatever they want on the discussion boards”.

7) Figure 7 indicates the overall preference of the respondents as it pertains to Discussion boards or Elluminate sessions for learning content.

As it pertains to communication in an on-line graduate course, which Elearning tool do you prefer?

- 24% Discussion Boards
- 76% Live Elluminate Session

CONCLUSION

The data indicates that the respondents valued the live elluminate sessions more than discussion boards but they indicated that the majority of their courses only use discussion boards as the only way of communicating with peers and instructors. The data collected also shows that the students would like to have this use of technology used more in their courses.

As it pertained to learning new content the respondents indicated at a very high level that they prefer the Elluminate Sessions to Discussion boards when they are used to learn new content. Some respondent narrative responses are as follows: “I prefer the Elluminate sessions because they provide the opportunity to learn from the professor and have real-time discussions. I enjoy viewing and participating in presentations from other students and have learned a great deal from those. Additionally, I have become more skilled at presenting material to others through this venue. Another benefit to Elluminate presentations is that I have learned how to collaborate effectively with people from across the state to create and present material to a group in an online format”, “Content is more easily explained via online Elluminate session versus discussion boards”, and “It is easier to understand content when it is explained verbally by the professor rather than when other students write about it. Other students are not always correct in their interpretation of content, but they are still free to post whatever they want on the discussion boards”.

Online teaching at the graduate level is becoming a critical component for students attending and gaining degrees. Offering convenience and high level learning are critical components to offering a degree program that is robust and meaningful to any field of study. Some universities are offering 100% online degree programs but these resemble more of a correspondence degree programs rather than a degree with personal interaction and robust teaching and learning. This study also shows that the students have indicated that personal interaction is critical to their own learning. It is the hope of the researchers to help universities see the importance personal communication and interaction in an online learning environment.

Future research in this area would be to duplicate the study with undergraduate students in various types of courses (Hybrid or face-to-face) and in a variety of fields of study and investigate any differences in perceptions and technology understanding.

Understanding how students at all levels learn and retain knowledge is important. It is even more critical at the university level because of the competition to gain and retain students. To be competitive universities must understand how adult students learn and what drives them to achieve.
REFERENCES


