Advances in Social Sciences Research Journal – Vol.5, No.7
Publication Date: July. 25, 2018
DoI:10.14738/assrj.57.4883.
Carver, L. B., & Lamb, J. A. (2018). Students' Perceptions Of Synchronous Sessions Within Online Courses In Higher Education. *Advances in Social Sciences Research Journal,* 5*(7)* 220-227.

Students' Perceptions Of Synchronous Sessions Within Online Courses In Higher Education

Lin B. Carver, Ph.D.
Associate Professor, Saint Leo University
33701 State Road 52, MC2005, Saint Leo, FL 33574

Jodi A. Lamb, Ph.D.
Associate Professor, Saint Leo University
33701 State Road 52, MC2005, Saint Leo, FL 33574

ABSTRACT

The number of students taking online courses has increased significantly. Helping students be successful in this format is very important. Previous studies have attempted to identify the difficulties that have hindered student academic progress the online environment. Adding a synchronous component to an online course is one method that has been discussed as a way to help students be more successful in online courses. This study sought to answer two research questions: 1. How important do students feel synchronous sessions are to their mastery of online content? and 2. What activities within the synchronous sessions do students feel are the most beneficial? Through email, 200 graduate students in 6 different education programs from a Catholic, Liberal Arts University were invited to participate in an online survey. Participants were asked to rate the importance of online synchronous sessions and their various possible characteristics. Results indicated graduate students found the synchronous online sessions are an important addition to the online course. They also indicated that the content of the sessions was the most important consideration. When structuring synchronous sessions, the participants indicated that instructors should focus on explaining assignments, simplifying content, adding additional content, and supporting group work.

Key Words: Online courses, Synchronous components, Blended learning, Higher education

INTRODUCTION

Higher education courses can be delivered in any of three different formats: traditional or face-to-face, blended, or online. In traditional courses all of the content is delivered in a written or oral format while in a blended course 30 to 79% of the content is delivered online. More than 80% of the content in online courses is delivered digitally [3]. University students can choose from any of these formats, but increasingly students are choosing online courses. The impact of digitally enhanced learning through online courses continues to grow as this course format has become an integral component in most institutions of higher education [5]. The number of students enrolled in online courses at the college and university level continues to grow significantly. Allen and Seaman [1] reported that between 5.5 and 7 million higher education students were enrolled in at least one online course at the graduate or undergraduate level. This figure represents more than a 100% increase from the total just six years previously [2].

Although online courses are offered on both the graduate and undergraduate level, online courses are particularly attractive to graduate students. Students enrolled in graduate programs tend to be older, working professionals rather than traditional college age students. Adult learners indicated that because of time demands, they found the online format more

attractive than those courses offered in the traditional face to face format [9]. These online courses provided adult learners with a more flexible schedule [16] thus allowing them to determine when they want to focus on learning while allowing them to balance family and work obligations by working ahead or using flexibility in completing assignments [18]. Although online courses have made it possible for adult learners to access academic content at their convenience, the need for self-discipline and intrinsic motivation has frequently resulted in high learner attrition rates in the online format [7,8].

Oblender [12] determined that the average online college course dropout rate in the United States was 50% because of these concerns. Many learners want the convenience that online courses offer, but are concerned about losing the support and interaction available in the face to face setting [8]. One possible way to address the attrition rate issue is by including a synchronous component in online courses. By combining the advantages of online instruction with the benefits of a synchronous component, instructors can keep learners motivated and engaged throughout the entirety of a course [8,11].

Conrad [6] described online courses as communities of "like-minded groups of people [gathered] together in the spirit of shared goals" (p. 4). Much of the research has focused on the development of online communities and decreasing the sense of isolation that sometimes accompanies online learning. Conrad's [6] definition of the community being built on a "shared goal" places the emphasis squarely on reaching the "shared goal" rather than on simply building community. This definition emphasizes the importance of content acquisition and application in online learning. Online students had the shared goal of understanding and being apply to apply the instructional content.

Research in the area of online learning at the university level has found that students are generally pleased with their online courses [15, 17]. Barbour, McLaren, and Zhang's [4] study of online learners found that students expressed greater enjoyment of their online courses than of their courses presented in the typical face-to-face format. Their research found that online learners indicated that teacher preparedness, more learner self-directedness, and more independence were significant factors that impacted students' enjoyment and content mastery. Additionally, studies by Petrides [14] and Vonderwell [19] determined that adult learners were able to use asynchronous communication tools effectively in their online courses. Learners reported that these tools allowed them to carefully construct meaningful responses and to reflect on their content knowledge and participation. Tunison and Noonan [18] reported that while students were able to use a variety of communication tools, the students indicated these tools were a poor substitute for the kind of interaction that would take occurred in face to face classroom settings.

Even though online course work has many benefits, it presents some innate challenges as well. In online courses, the learners become responsible for determining ways to expand their content understanding when the concepts are not clearly explained or when the learners are confused by the complexity of the information. This is more likely to occur in the online setting because students are unable to ask questions at the time that the content is presented [10]. In their research Negash, Wilcox, and Emerson [10] identified additional content mastery challenges that existed as a result of students feeling "overburdened by the shift of responsibility and control," increased anxiety related to content mastery, and difficulty in time management (p. 11).

Adding a synchronous online component may be beneficial, but little research has been done to determine students' perceptions of what they deemed to be the most useful ways that the tool

should be incorporated into online courses. Consequently, it can be difficult for instructors to know how to use the synchronous component most effectively to increase content mastery. In addition, students' preference as far as frequency of synchronous sessions has not been investigated. This research attempts to fill the gap in the literature by analyzing students' perceptions about using a synchronous online tool to help develop content mastery in online courses.

Research Questions

This research is guided by two research questions.

1. How important do students feel synchronous sessions are to their mastery of online content?
2. What activities within the synchronous sessions do students feel are the most beneficial?

METHOD

Two hundred graduate students enrolled in entirely online courses in the education programs at a small, private, liberal arts institution in the southeastern United States were invited to complete an anonymous online survey. Email invitations were sent to the 200 students enrolled during the 2017 fall semester in the six online graduate education programs: Education Specialist, Exceptional Student Education, Reading, Instructional Leadership, Instructional Design, and Educational Leadership. Only students in graduate programs that were entirely online and used a synchronous component were invited to participate in this study.

The programs included in the study were structured using a similar format. Semesters are divided into two eight-week courses within each program were offered entirely online with the content being provided through textual and video information that was housed in the learning management system. Textbooks and websites supplemented the information located within the course shell in the learning management system. In addition, each course offered one synchronous session each week using conferencing software that allowed for sharing of PowerPoints, videos, discussion, and whiteboard presentations. Participants who attended the synchronous sessions were able to discuss the instructor prepared content with the instructor and their colleagues. The software allowed for the participants to see each other through their cameras. Participants were able to present content or ideas by using their microphone to speak or they could type comments in the chat box. Attendance at these sessions was not required, but the sessions were recorded so that the students were able to listen to the recording at a later time if they chose.

The graduate students in these programs were invited to complete an anonymous online survey containing both qualitative and quantitative questions regarding their perceptions about online synchronous sessions used within the online courses. The convenience sample was composed of responses from 53 students who were enrolled in the graduate education programs at a small private liberal arts institution.

Nominal measurement scale demographic information was collected from each respondent to ascertain the graduate student's gender, age, and program. These demographic data provided the researchers with a rich description of the sample participants. The graduate students ranged in age from 24 to 67 years of age. The average population of the sample was 40.55 years of age. The average age of the 13 male respondents was 51 years of age, while the average age of the 40 female respondents was only 38 years of age. Because of the smaller number of male participants, the responses were not disaggregated by gender. Each of the six

programs was represented in the sample; however, approximately one third of the responses came from students enrolled in the Educational Leadership program.

Next, using an interval Likert scale, the researchers gathered data about students' perceptions related to the use and content of synchronous sessions. The entire 12-question survey is located in Appendix A. Through the use of a Likert survey design in the first 10 questions, the study explored students' perceptions about the use of synchronous online sessions within online courses. The Likert scale ranged from 1-4. Participants chose between 1- Disagree Strongly, 2- Disagree, 3- Agree, and 4- Agree Strongly. Mean scores were then calculated to compare the strength of the preference for each type of activity during the synchronous session. Question 11 asked about the frequency with which the synchronous component should be used. The final question in the survey asked the respondents to identify what they perceived to be the three most important functions of the synchronous sessions.

Axial and open coding methodologies were used to analyze and identify themes based on factors identified by the participants. The qualitative data was coded individually by each researcher to determine inter-rater reliability. All quantitative and qualitative data was corroborated and triangulated to ensure the validity of the results.

FINDINGS

For each closed response question in the survey, participants responded with 1- Disagree Strongly, 2- Disagree, 3- Agree, or 4- Agree Strongly. Mean scores were calculated based upon the responses from the Likert survey. Students indicated that they agreed with the use of a synchronous component (Mean= 2.91836) as an effective tool in supporting learning in the digital environment. This information answers the first research question about how important students perceive the synchronous component to be in the mastery of content in an online course.

Students were then asked to indicate the importance of five different ways that the synchronous session could be used: explain assignments and expectations, scaffold course content, provide additional content, facilitate group work, or answer student questions. Students' mean scores were in the agree range for four of the synchronous functions. Participants indicated that they felt it was most important for the instructor to explain assignments and course expectations during the online sessions. The next three functions were very closely rated in importance: provide an explanation of course content, provide additional information related to the course content, and support group work. Using the synchronous session to answer student questions was perceived as the least desired usage of the synchronous session. This could be because the students felt their questions could be answered more immediately through email or phone contact.

T- and *p*-values were used to compare the means of the possible usages for the synchronous component. Explaining the course content (*t*-value = 4.17085 and *p*-value = .000067), providing additional content (*t*-value = 4.37954 and *p*-value = .00003), explaining assignments (*t*-value = 5.484 and *p*-value <.00001), and supporting group work (*t*-value = -4.14039 and *p*-value = .000075) mean scores were all in the agree area and were significantly different at the $p < .05$ level from the mean score for answering student questions. However, the differences between the means of explaining course content, providing additional content, explaining assignments, and supporting group work were not statistically significant from each other at the $p < .05$ level. Consequently, students seem to view these four activities as equally important functions that should occur within a synchronous session. In contrast, the mean for only

answering student questions was in the disagree range and consequently was not viewed as an important function of synchronous sessions.

Table 1
Mean scores Related to Functions of Synchronous sessions and their Order of Importance

Function of synchronous session	Mean	Standard Deviation
Use of synchronous session in online course	2.91836	0.84
Provide explanation of course content	3.02040 (3)	0.85
Provide additional content	3.04081	0.80
Explain assignment	3.20408	0.76
Only answer student questions	2.28571 (5)	0.87
Support group work	3.00000	0.87

When responses were disaggregated, there were no statistically significant differences between responses based on gender, age, or program. The final question on the survey was an open ended response. Participants were asked to list what they felt were the three most important characteristics of an effective synchronous sessions. Seventy-six responses were recorded for this question. The data was coded and aggregated or organized by themes. The data were then transcribed and classified using open and axial coding methods. Using open coding methodology, the researchers read through the qualitative responses several times to create "chunks" of data seeking meaning that emerged from the data. The researchers also used an inductive reasoning process to generate themes and ideas and employed axial coding methodology to identify relationships from among themes. Each researcher coded the data and reviewed it for inter-rater reliability. During this process, the researchers debriefed to identify any variations in coding and coexistent themes. Following the inter-rater reliability check, the researchers finalized the data results into overarching themes, so as to discern patterns and meanings to "make sense" of the data. Using an analytic inductive reasoning process, data coding and concomitant interpretation, the researchers were able to ascertain the common themes or recurring regularities that emerged from the data [13]. This entailed internal homogeneity or the extent to which data belonged to a certain category or theme. This also entailed external heterogeneity or the extent to which the data did not belong in a category and to identify that the differences between categories was clear [13].

Analysis of these responses generated comments related to 3 major themes: content, length and frequency, and platform format. Between a half and three fourths (48/76 responses) of the responses focused on the content of the synchronous sessions. Nineteen of the comments stressed the importance of having an opportunity to clarify and ask questions of other students and the instructor through collaboration and discussion. The next most frequent response related to content, indicated students' perception of the importance of providing information about upcoming assignments and course content (17/48 responses). The third most frequent theme (10/48 responses) identified the importance of the synchronous sessions in building connections to current events. Other responses about content asked for assignment examples and guest speakers.

Length and frequency were addressed in less than 10% of the responses (6/76 responses). Two respondents indicated the sessions should be short, less than 30 minutes. Two indicated the sessions should be offered at multiple times and on multiple days. In contrast, two other students indicated the synchronous sessions should not be offered weekly, but instead should be less used less frequently. In addition, they indicated that the synchronous sessions should not be mandatory.

Eighteen participants shared observations about the platform and format the synchronous sessions should take (18/76 responses). The most important theme in this category was that ten participants indicated the importance of the synchronous platform being able to display visuals of both the instructor and the students and that the session should be recorded. Participants (3/18 responses) indicated that the recording should be available for review purposes or for students who were unable to attend the session and that it was important that the recording be available for the entire term. Two participants indicated the sessions should not be mandatory, while one student indicated that the sessions should be mandatory. Individual participant's responses indicated the importance of being able to share documents, videos, and use the chat feature.

DISCUSSION AND CONCLUSION

Graduate students viewed synchronous sessions as an important addition to their online course work. This study provided data that will enable instructors to understand how to effectively structure synchronous sessions to better meet student needs. Graduate students agreed that a synchronous component was important for explaining assignments and content, supporting group work, and providing additional content. However, all three of these activities were viewed as equally important. The data from this study supports the findings of Negash, Wilcox, and Emerson [10] who identified additional content mastery challenges faced by online learners. Synchronous sessions can be used to help to address these challenges. A synchronous session that was structured only as a way to answer student questions was not viewed as positively by the graduate students at this small, private university.

Data also indicated the importance of recording the synchronous session and having this recording available during the entire course. This recording allows online learners more flexibility in accessing content. The graduate students' responses support the findings of Putman, Ford, and Tancock [16] related to the importance of providing adult learners with a more flexible schedule so they can determine when they wanted to focus on learning while allowing adult learners flexibility in balancing family and work obligations.

Data from the final open ended question on the survey revealed that students perceived the content of the session as the most important criteria to consider rather than focusing on the method, frequency, or time length. The most important content theme related to structuring the session to allow for collaboration and discussion between students and the teacher. Students felt that this collaboration allowed for expanding understanding of course content and assignments.

LIMITATIONS AND FURTHER STUDY

The findings of this study are limited to graduate students in six education programs at a southern, private, liberal arts university. Since the mean age of students in this study was 40.55 years of age, it is unknown whether these findings are representative of a larger cross section of university students at different ages. It is unknown if studies involving a larger cross section of university students will support the findings of this study. Each program was not equally represented in the sample. The sample was more strongly weighted toward Educational Leadership. Because of the small number of respondents from other programs, the data could not be disaggregated by program. It is unknown if different educational programs would have responded differently.

This study examined graduate students' perceptions about the use of a synchronous component within a totally online course. Since effective instructional practices are a topic frequently discussed by university instructors, further study might be helpful to provide

additional insights into the impact of attending synchronous sessions on student achievement within the online course. Because of the advancements being made in the capacity of software to track student participation in various portions of the online course, examining course analytic data for synchronous components housed within the learning management system might be an important next step. By examining student participation data, quantitative studies might be able to provide additional information to help determine if there is a relationship between student grades and participation in online session. Information from this type of a study might help instructors to continue to refine and improve their use of a synchronous session in online courses.

APPENDIX A

Indicate if you: Strongly Disagree, Disagree, Agree, or Strongly Agree with each statement.

1. It is beneficial to have a synchronous component in an online course.
2. A synchronous component enables students to develop a better understanding of the course content.
3. Additional course content should be presented through synchronous sessions.
4. Synchronous sessions should only be used to answer student questions.
5. A synchronous component enables students to develop a better understanding of the assignment expectations.
6. A synchronous component helps to develop peer to peer relationships.
7. A synchronous component helps to develop student to teacher relationships.
8. It is too difficult for students taking online courses to participate in synchronous sessions.
9. A synchronous component within the course should be used to support group work.
10. A recording of synchronous sessions should be provided.

In the next question indicate your preferred frequency.

11. With what regularity should synchronous sessions be offered? _____ Never _____Once a Term ____Twice a Term _____Once every other Week ____Once a Week

Provide a short answer for the next question.

12. The three most important features I would like to see in a synchronous session are:

References

Allen, E. & Seaman, J. (2016). *Online report card: Tracking online education in the United States*. Retrieved from https://www.onlinelearningsurvey.com/reports/onlinereportcard.pdf

Allen, E. & Seaman, J. (2010). *Learning on demand: Online education in the United States 2009*. Needham, MA: Sloan Consortium.

Allen, I.E., & Seaman, J. (2008). *Staying the course: Online education in the United States, 2008.* Sloan Consortium. Retrieved from https://onlinelearningconsortium.org/survey_report/2008-staying-course-online-education-united-states/

Barbour, M. K., McLaren, A., & Zhang, L. (2012). It's not that tough: Students speak about their online learning experience. *Turkish Online Journal of Distance Education, 13*(2), 226-241.

Ciabocchi, E., Ginsberg, A., & Picciano, A. (2016). A study of faculty governance leaders' perception of online and blended learning. *Online Learning, 20*(3), 53-73. Retrieved from https://olj.onlinelearningconsortium.org/index.php/olj/article/view/974

Conrad, D. (2002, spring). Deep in the heart of learners: Insights into the nature of online community. *Journal of Distance Education, 17*(1), 1-19.

Dreyer, C., Bangeni, N., & Nel, C. (2005). A framework for supporting students studying English via a mixed-mode delivery system. In B. Holmberg, M. Shelley, & C. White (Eds.), Distance education and languages: Evolution and change (pp. 92-118). Clevedon, U.K.: Multilingual Matters.

Graham, C. R. (2005). Blended Learning Systems: Definition, Current Trends, and Future Directions. In C. J. Bonk & C. R. Graham, The handbook of blended learning: Global perspectives, local Designs (pp. 3-21). San Francisco, CA: Pfeiffer Publishing.

Jo, I., Kim, D., & Yoon, M. (2015). Constructing proxy variables to measure adult learners' time management strategies in LMS. *Educational Technology & Society*, 18(3), 214-225.

Negash, S., Wilcox, M. V., & Emerson, M. (2007). Synchronous hybrid e-learning: Teaching complex information systems classes online. *International Journal of Information and Communication Technology Education, 3*(3), 1-13.

Nielson, K. & González-Lloret, M. (2010). Effective Online Foreign Language Courses: Theoretical Framework and Practical Applications. *The Eurocall Review, 17*, 27-35.

Oblender, T. (2002). A hybrid course model: One solution to the high online drop-out rate. *Learning and Leading with Technology, 29*(6), 42–46.

Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Petrides, L. A. (2002). Web-based technologies for distributed (or distance) learning: Creating learning-centered educational experiences in the higher education classroom. *International Journal of Instructional Media, 29* (1), 69–77.

Poole, D. M. (2000). Student participation in a discussion-oriented online course: A case study. *Journal of Research on Computing in Education*, 33 (2), 162–177.

Putman, S., Ford, K., & Tancock, S. (2012). Redefining online discussions: Using participant stances to promote collaboration and cognitive engagement. *International Journal of Teaching & Learning in Higher Education*, 24(2), 151-167.

Schrum, L. (2002). Oh, what wonders you will see: Distance education past, present, and future. *Learning and Leading with Technology, 30* (3), 6–9, 20–21.

Tunison, S. & Noonan, B. (2001). On-line learning: secondary students' first experience. *Canadian Journal of Education. 26* (4). pp. 495-511. Retrieved from http://www.csse.ca/CJE/Articles/FullText/CJE26-4/CJE26-4-Tunison.pdf

Vonderwell, S. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course: A case study. *Internet and Higher Education, 6*, 77–90.

