Z499 LA Pedagogy: Henry Cahall, Jeanette Chen, Anya Panose, Nabila Syahriza, Adrianna Thompson, Connor Wilson

EFFECTIVENESS OF DIFFERENT REMOTE COURSE STRUCTURES

Synchronous vs. Asynchronous

CONTEXT

The COVID-19 pandemic has changed the way coursework is taught. There have been two ways in which universities have adapted to this change: asynchronous and synchronous courses. It is imperative that we look at which method is most effective to ensure the highest rates of student engagement and success during this time and for future online learning.

BACKGROUND

Learning processes in the classroom can be classified into two general types: surface level learning & deep learning processes (Oliver & McLaughlin, 1996). Deep learning processes - which require students to evaluate information, organize concepts, and synthesize ideas - are arguably the most important learning processes to metacognitive development(Entwistle & Waterson, 1988). A fundamental obstacle to deep learning is the great transactional distance present in remote learning environments.Transactional distance refers to the psychological distance created in the classroom between students and teachers, or how accessible the students feel the teacher is. Increasing this distance can result in communication gaps and a psychological void with a potential for misunderstanding between the teacher and students (Moore & Kearsley, 1996). Thus, the effectiveness of distance learning can be largely determined by two factors. Firstly, it is essential to create a course structure that minimizes the transactional distance. This can involve encouraging dialogue in the classroom as well as attempting to make a more flexible course structure that invites students to be comfortable and to participate (Moore & Kearsley, 1996). The second factor that is essential to the effectiveness of distance learning is an individual one: independent learners - who can control their own learning process, recognize the need for help, and look for opportunities to test their understanding - are far more likely to exceed in an environment with greater transactional distance (Linn, 1996). This investigation attempts to identify the differences in structure & transactional distance present in synchronous versus asynchronous classes.

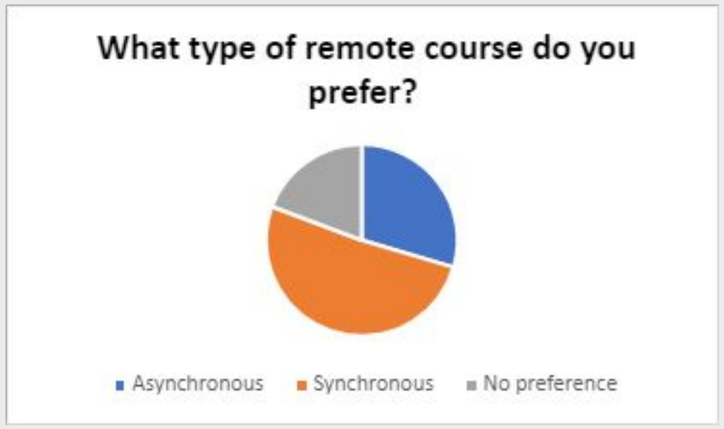

Figure 1: This chart shows the distribution of which course style students preferred. 51.25% of students preferred synchronous courses, 29.5% preferred asynchronous courses, and 19.25% of students had no preference.

CONCLUSION:

Our survey determined that the majority of students who have taken both synchronous and asynchronous, over 50% of students preferred synchronous over asynchronous courses (figure 1). The results showed that a significant number of students believed their grades in synchronous classes were higher (figure 2), believed instructors in synchronous courses were more accessible than asynchronous (figure 3), and were more engaged in their synchronous classes than their asynchronous ones (figure 4).Though this survey was only applied to classes within the college of science, this general preference for synchronous courses could be the case for all classes across OSU because they create an environment with lower transactional distance - allowing for more interaction with class material, classmates, and the teacher.

NEXT STEPS:

From the data collected, it is apparent that Oregon State University (OSU) College of Science undergraduate students prefer synchronous to asynchronous courses. The limitation of this population may not be in alignment with results from another population. Therefore, the next action step that must be taken to determine such (in)congruences is to survey other colleges within OSU. Moving forward, surveys can be conducted across universities statewide and nationwide. Ecampus courses are similarly intertwined in this topic, and there must be a comparison done with asynchronous data to show reliable results. If the results are consistent among the majority of research surveys, then a discussion is overdue in regards to the effectiveness of asynchronous courses. Among this discussion should be the topic of possibly discontinuing asynchronous courses with a transition to synchronous courses or an otherwise alternative that produces the same effectiveness.

TOPIC

Purpose: Investigate how OSU students who have experienced both synchronous and asynchronous courses to determine how these respective courses impact students' feelings about engagement and success

Hypothesis: If synchronous class provides structure and motivation for students to come to class, then we expect to see most students will prefer synchronous classes over asynchronous classes.

RESEARCH METHODS

Students were asked to rate their level of agreement on the following statements on a scale from strongly agree, agree, neither agree nor disagree, disagree to strongly disagree. In the data shown, the strongly agree and somewhat agree results were combined to be one category: agree. Strongly disagree and somewhat disagree results were combined to be one category: disagree.

REFERENCES: Surface and deep learning processes in distance education

ACKNOWLEDGEMENTS:
Devon Quick and Wendy Aaron

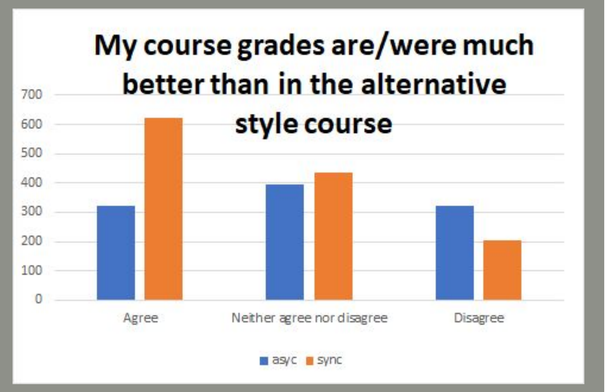

Figure 2: This graph shows the distribution of how students felt their grades varied based on the course style.

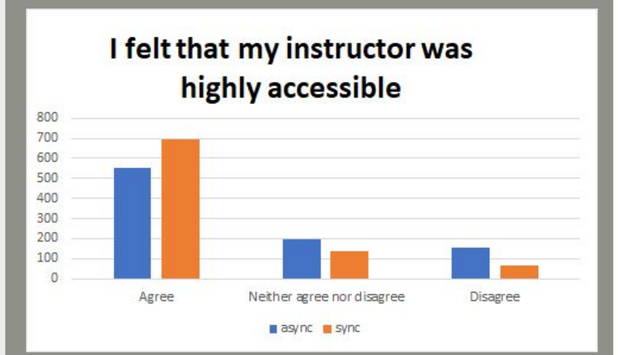

Figure 3: This graph shows the relationship between how accessible students felt that their instructors were based on the course style.

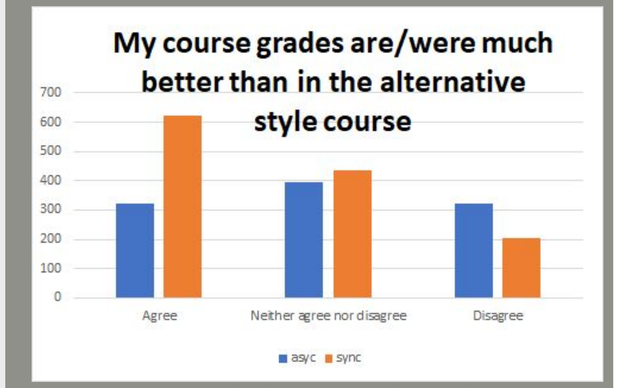

Figure 4: This graph shows the relationship between how engaged students were with their courses based on the course style.

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