

ONLINE COURSES: HEALTHY MEAL OR JUNK FOOD?

Benjamin E. Norman, California Academy of Mathematics and Science High School, Carson, CA 90747

Thomas J. Norman, California Student University, Dominguez Hills, 1000 East Victoria Street, Carson, CA 90747, 310-243-2146, tnorman@csudh.edu

ABSTRACT

This study explores how college class delivery (online or face-to-face) relates to the student beliefs about the level of learning in online classes and student preferences in online delivery methods. Are online classes popular but low quality like fast food or have they developed into a suitable replacement to face-to-face classes? The results from a student survey conducted in 2020 with 1,805 responses show a few areas of disagreement between student preferences and perceptions of quality.

INTRODUCTION

Online learning has exploded in popularity after the pandemic but is under researched. Some previous studies give some insights into student perception of quality and desire to take online courses. For example, Boghikian-Whitby and Mortagy's longitudinal, quasi-experimental study [1] found that student learning differed between online and face-to-face based on their personality type with the sensing and thinking plus the sensing and perceiving types learning more in the online modality. Drouin, et al. [2] found students preferred richer online lectures that include audio and visual components. Marshall, Greenberg, and Machu [4] found that students enrolled in a completely online graduate program gave their preferences for advance online course information – including visual representation of that information. Respondents rated collaboration, necessary synchronous attendance, and total time invested by prior students, as most important in deciding about enrolling in an online course. Leon [3] reported a 25% decrease in college enrollment due to the pandemic and that Zoom prevented this drop from getting worse. According to National University's website [5] there are three drawbacks to online learning: tougher technical requirements, greater need for self-motivation, and possible distractions at home. However, the university notes some benefits to students such as their schedules being more under their control, no commuting costs, and lower spending on student housing.

This paper analyzes the survey results of students who attended a public, four-year university located in South California. The survey was sent in May 2020 via email with three reminders to 18,710 students of which 71% opened the survey and 8% completed the entire survey with another 4% partially completing the survey. This was a semester in which all the students enrolled in face-to-face and hybrid classes had their classes converted to fully online over the course of one week. These results provide helpful insights to university leaders deciding the mix of online to face-to-face classes after the pandemic.

In terms of lecture delivery, this university provided Zoom to all faculty and students to provide synchronous lectures. Students whose fully online classes used Zoom lectures reported mixed attendance: 44% attended all their Zoom lectures, 22% attended between half and all of their Zoom lectures, while 15% attended zero Zoom lectures. For these classes they reported that 13% of professors required their cameras to be on at all-times while 41% of professors never required their cameras to be on. Students reported that 17% of professors recorded all their Zoom lectures for later viewing while 13% recorded between half and all of their lectures and 40% did not post any of their lectures for later viewing.

Faculty at this university used many textbook and supplementary online tools for assignments. When asked about the supplementary online tools, the most popular tools were provided by McGraw Hill with 23% of students rating them as effective to extremely effective, while Cengage's tools were rated as effective to highly effective by 15% of students and both Google and Pearson's tools were rated as effective to extremely effective by 11% of students.

When the respondents were asked how often they came to campus on a typical week prior to the campus shutdown, 8% reported not coming to campus on a typical week, 4% were coming one day per week, 30% were coming two days per week, 16% were coming three days per week, 32% were coming four days per week and about 11% came five or more days per week. During the semester in which the delivery switched for many students from face-to-face to online, 42% did not believe the move to an online modality negatively affected their learning of course material compared with 36% who believed the switch negatively affected their learning. This compared to 48% believing the change did not negatively affect their grade and 24% believing the change did negatively affect their grade. These results show students were able to distinguish between learning and course performance.

How did this sudden shift to fully online delivery affect student preferences and perception of online courses? This survey found that 65% of students thought future online courses should have a synchronous component versus 14% did not think future online courses should have a synchronous component. When asked if in the future they preferred synchronous online courses or asynchronous courses with recorded lectures, 52% preferred synchronous and 21% preferred asynchronous delivery. Student views of the quality of their education showed that 43% felt the change to online education affected the quality their education to a great or very great extent.

Students did report shifting to a fully online course schedule resulted in higher costs with the average amount spent on computer equipment, camera and microphones being \$245 and an average cost of other items of \$124 which offsets some of the savings from reduced transportation and parking costs. When asked about their preferred course delivery after repopulation of the campus, 21% wanted an all-online schedule while 26% wanted an entirely face-to-face schedule. The largest groups wanted 1-2 classes online or hybrid to complement their face-to-face classes. Asked a different way 53% of these students wanted 50% or more of their courses to be offered face-face while 13% preferred no face-face options.

When the students were asked if they thought students learned "as much in online courses as from traditional courses" 40% of the surveyed students agreed with this statement and 37% disagreed. When asked if "the student experience online was as good as traditional courses" 35%

agreed with this statement and 44% disagreed. When asked about electronic textbooks 54% preferred traditional textbooks and 21% preferred electronic textbooks with 25% stating no preference.

Would online courses be plausible for most students to take in the future? 93% of students taking the survey already had their own portable laptop/notebook to take online courses, while only about 7% did not own one. The survey results show that 70% of the students thought the university's use of the learning management platform, Blackboard, was effective in the online environment, while only 10% did not. It is also clear that in the survey the professors' teaching style stayed similar during the pandemic as 68% of the students surveyed agreed that their professor's personality came through over the online lectures, with around 8% disagreeing.

Prior to the pandemic many academics looked down on online teaching and some considered it to be junk food. This study shows that online classes can provide effecting learning and meet student needs so most likely they are here to stay. In fact, the results of our study show that after every student was required to try online classes, many of them wanted another serving. Overall, if colleges want to provide an improved experience, they should try to incorporate a healthy mix of online and face-to-face classes for their students.

REFERENCES

- [1] Boghikian-Whitby, S. and Mortagy, Y. (2016). Student preferences and performance in online and face-to-face classes using Myers Briggs Indicator: A longitudinal quasi-experimental study. *Issues in Informing Science and Information Technology*, 13. 89-109. Thousand Oaks, CA: Sage.
- [2] Drouin, M., Hile, R. E., Vartanian, L. R., and Webb, J. (2013). Student preference for online lecture formats. Does prior experience matter? *The Quarterly Review of Distance Education*, 14(3), 151-162.
- [3] Leon, R. (2021, October 20). Online vs. in-person learning. *El Paisano Rio Hondo College Newspaper*. Retrieved October 29, 2021 from <https://elpaisanoonline.com/opinion/2021/10/26/online-vs-in-person-learning/>
- [4] Marshall, J., Greenberg, H. and Machu, P. A. (2012). How would they choose? Online student preferences for advance course information. *Open Learning*, 27 (3), 249-263.
- [5] National University. Weighing the pros and cons of online vs. in-person learning. (2021, October 29). Retrieved from <https://www.nu.edu/resources/weighing-the-pros-and-cons-of-online-vs-in-person-learning/>