

Back to the Basics: Balancing Technology and Traditional Teaching Methods in Higher Education Classrooms

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Abstract

While much research has been dedicated to the opportunities and impacts of online learning since the COVID-19 pandemic, there is a lack of research about the learning and teaching preferences of students with regard to technology in the classroom post-pandemic. This exploratory study sought to fill this gap in research and better understand both the advantages and disadvantages of technological tools in the classroom, as well as the preferences of university students in teaching and learning methods. To fulfill the purposes of this study, researchers conducted a short, exploratory survey using a Likert scale among university students in the Western United States. Results indicated that while students have grown accustomed to digital learning elements in the classroom, they appreciate opportunities to interact with students and professors in meaningful face-to-face activities.

Keywords: Digital learning, face-to-face learning, Likert-scale, COVID-19

1. Introduction

The adaptation of technology in the classroom has changed and influenced education and learning throughout the world (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2023). Additionally, the COVID-19 pandemic changed the ways classrooms operate and how students are taught throughout all stages of education, presenting new opportunities, as well as challenges (Aguilera-Hermida, 2020; Leo et al., 2021; Rapanta et al., 2021). As the world is adjusting to a “new normal” in the years following the COVID-19 pandemic, institutes of higher education are finding new ways to include technology and improve online learning in classes (Crawford, 2023). However, with so much technology being implemented in classrooms, and online meetings replacing in-person classes, many students are missing opportunities to connect with and learn from professors and fellow students (UNESCO, 2023).

While much research has been dedicated to the opportunities and impacts of online learning since the COVID-19 pandemic (Aguilera-Hermida, 2020; Leo et al., 2021; Rapanta et al., 2021), there is a lack of research on the learning and teaching preferences of students with regards to technology in the classroom. This study seeks to fill this gap in research and better understand both the advantages and disadvantages of technological tools in the classroom, as well as the preferences of university students in teaching and learning methods.

2. Literature Review

2.1 Technology and Higher Education

Universities throughout history have sought to implement the newest technologies in the classroom to enhance learning (Guan, 2020; Muñoz, 2022). The COVID-19 pandemic shifted many university students from an in-person, immersive learning experience to online, video-call-styled lectures almost overnight (Crawford, 2023), thus leading to a fully digital learning experience. In the years following the pandemic, universities are seeking ways to incorporate both technology and face-to-face experiences (Rapanta, 2021). Many college students use technology to take notes, use online search engines to clarify questions related to the course material, or even to study through online review games (Flanigan et al., 2023). With the introduction of more accessible artificial intelligence (AI) tools, universities are quickly trying to make adaptations to how digital learning is balanced within the classroom, all while the potential benefits and disadvantages of AI are still unclear in many ways (Holmes & Tuomi, 2022).

Despite the benefits that may come from using technology and personal mobile devices in the classroom, it can also become a serious distraction to students (Flanigan, 2023). Fasoli (2021) asserts that many individuals experience digital overuse, which affects digital well-being (Dennis, 2021). While technological tools can aid in the learning experience, there exists a “fundamental social and human dimension that lies at the heart of education” (UNESCO, 2023, p. vii). Previous research has shown that students who participate in online, distance learning are less effective at developing relationships of trust with both teachers and students (Wang, 2023).

2.2 Traditional Practices

While technological advances aided many university professors and students during the COVID-19 era, a study conducted by Gherhes et al (2021) showed that more than half of the students surveyed wanted to return to face-to-face learning by the end of the pandemic. Research on traditional pedagogical practices has shown that face-to-face interaction leads to more successful cooperative learning (Kristiansen, 2019) and is more motivating to students than

online learning situations (Aguilera-Hermida, 2020). Using mobile technology for non-class purposes has become common among college students, negatively impacting students' learning and performance (Flanigan et al., 2023). To foster stronger social, face-to-face connections within the classroom, researchers strongly encourage institutions of higher education to begin returning to more traditional teaching methods, while still incorporating the best of the online and technological learning practices that were established during the pandemic (Flanigan, 2023; Leo et al., 2021). However, little research has been conducted seeking to understand better what students' preferences are with regard to what specific technological tools are used to aid in the face-to-face learning environment.

With this gap in mind, the following research question is presented:

RQ 1: What are students' preferences when it comes to balancing technology and traditional learning methods in a university classroom?

3. Method

To fulfill the purposes of this study, researchers conducted a short, exploratory survey among students attending a university in the Western United States. Students who participated were from an Introduction to Communications class. In total 168 students participated in the survey. The survey consisted of a five-question Likert-type scale designed to differentiate between student feelings of online/digital vs. face-to-face class interactions. The survey included questions such as, "I feel easily bored when a professor uses videos or lectures with a PowerPoint presentation the whole class time", or "I prefer participating in digital activities (such as watching videos, Kahoot, PowerPoint presentations, etc.) in class." Students were asked to complete the survey, using a Likert scale to rate to what degree they agreed or disagreed with statements related to the research question. The Likert scale is a method of quantification commonly used in social sciences research to measure survey responses (Anjaria, 2022).

4. Results

There were two main results that emerged from the data. First, the results of this study indicated that the vast majority of university students enjoy face-to-face activities that are integrated into classroom settings. About 156, or 93%, of students reported agreement with the phrase "I prefer participating in face-to-face and group activities in class."

Second, in addition to enjoying face-to-face activities, many students also appreciated when digital elements were incorporated into lessons. 89% of students (about 151 individuals) agreed with the phrase "I prefer participating in digital activities (such as watching videos, playing Kahoot, PowerPoint presentations, etc.) in class." Even though students in this category did enjoy digital elements, it appears that there is a point at which it becomes too much for students.

About 63% of students (106) agreed that they felt easily bored when a professor used videos or lectured with a slideshow the whole time. This indicates that while students want digital elements incorporated into their lessons, they hope for a balanced mix of digital and more face-to-face to keep them engaged.

5. Discussion

The results of this study indicate that while students have come to accept both face-to-face activities and digital activities, students are willing and interested in participating in face-to-face and group activities, more so than what many university professors may realize. As was discussed in the literature review, many universities are returning to fully operating, in-person classes in the months and years following the pandemic and seeking to balance the technological skills gained during COVID, along with the traditional learning and teaching methods utilized pre-COVID (Rapanta, 2021). In addition to this shift, new technologies such as AI are widening the opportunities and possibilities available in the world of education (Holmes & Tuomi, 2022). While these technological advances are exciting and can elevate the educational experience, professors should recognize the needs and preferences of their students when seeking to find a balance between traditional and digital practices. As shown in the results of this study, students are accustomed to technology having a place in the classroom, however, they strongly desire to connect with fellow students and professors through group activities, partner work, and other face-to-face projects and mentoring.

6. Conclusion

The purpose of this study was to better understand students' preferences when it comes to balancing technology and traditional learning methods in a university classroom. While this study has the potential to inform educators about the types of in-class activities that university students prefer, some limitations exist. First, as this study was exploratory in nature, it only began to understand the preferences of students, and future research should increase the depth of these findings, especially through qualitative research methods. As all participants came from the same university and were generally in the same stage of higher education (as they were in introductory courses), different results may come through a wider age and experience range of participants. Future research may also consider studying students' preferences and beliefs about specific technological tools, such as artificial intelligence, as this study did not necessarily name specific digital tools or traditional learning practices.

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