



Teaching During a Pandemic: A Pedagogical Reflection of Students' Challenges in Online Learning During COVID-19

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On January 20, 2020, the first case of Covid-19 in the U.S. was reported in Washington State (Holshue, 2020). The World Health Organization declared a global pandemic on March 11, 2020, and almost immediately, the landscape of higher education across the U.S. changed (Marris, 2020). Many states and municipalities announced stay-at-home orders and other public health mandates, like masks and social distancing, that impacted the ability to provide traditional face-to-face classroom interaction. At this same time, many higher education institutions shut down their campuses and canceled face-to-face classes, moving the vast majority to an online learning environment (Longhurst, 2020). Specifically, lab-based courses such as textile science for fashion, apparel, and design students faced some unique challenges, as campuses shut down, as these courses require significant student-teacher interaction and continued access to course materials to conduct lab experiments (Marris, 2020).

As COVID-19 persisted and higher education institutions returned in the Fall 2020 semester, some universities adopted a blended course delivery structure. Students moved back onto campus and classes offered in-person and online by following appropriate social distancing measures and mask mandates. To mitigate the spread of COVID-19, campuses required students who tested positive for or were exposed to someone who tested positive for COVID-19 to quarantine for 14-days. Students were often directed to enter quarantine abruptly, given a short time to gather personal effects and either leave campus (i.e., go home) or enter the on-campus quarantine location. This abrupt shift often placed students into precarious situations where they could not bring required study materials with them, such as books, laptops, guides, DIY lab material to complete class assignments or exams. Students faced difficulty accessing technology remotely that hampered their coursework completion. The disruption to student's living arrangements due to COVID-19 quarantine caused a significant burden on students and instructors as they balanced course expectations with public health mandates in an ever-shifting pandemic landscape. Therefore, this study's objective was to investigate students' challenges in an online textile course during the COVID-19 pandemic.

The "community of inquiry" (COI) model for online learning (Garrison et al., 2000) has been discussed as the theoretical framework of this study. COI posited that there should be three discrete "presences": cognitive, social, and teaching for students' online learning. These three presences are social phenomena manifested through interaction between students and the teachers (Picciano, 2017). An academic literature review of learning challenges during COVID-19 identified five specific factors serving as barriers for the three "presences" of COI. The challenges are: 1) technological (e.g., lack of devices or limited access due to gadget sharing, unreliable, slow, or no internet access, issues with the online learning platform); 2) individual (e.g., difficulty adjusting

memorizing information for exams rather than learning it for my own knowledge.” 127 (45%) students indicated that they had experienced one or more community challenges. One student indicated, “I like to go to the library or study rooms to do my homework because I focus better in those places than in my own room, but because of restrictions, I was not always able to do so.”

This study revealed that despite the popularity of online learning and its widespread availability during the last decade, students experienced numerous learning barriers as they shifted to online learning during the COVID-19 pandemic. Especially in the U.S., a leader in higher education and technological advancement, the lack of consistent internet access off-campus and the low-level of technological literacy among college students are alarming. Educational policymakers should investigate these learning challenges and barriers while exploring a newer pedagogical approach that considers students’ sociological, psychological, and technological status. Future pedagogical research could be conducted by assessing students’ online learning performance across discipline, location, and time, comparing Spring and Fall 2020 to Spring and Fall 2021.

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