

# When Technology Becomes a Student Lifeline: Impacts of a Pandemic on Student Success

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## **BRIEF BACKGROUND**

Higher education institutions across the US transitioned to remote learning during the spring 2020 semester due to the Covid-19 pandemic. The swift pivot to online instruction prompted institutions and faculty members to reflect on numerous lessons learned. Even when face-to-face (f2f) instruction reconvened, many technological accommodations were required as students and faculty were in and out of the classroom due to requirements to quarantine (positive test results, contact tracing, etc.).

## **PURPOSE OF THE STUDY**

The purpose of this study is to examine faculty and student experiences regarding the abrupt expectation and requirement of technology use for remote instruction. Additionally, review of anecdotal evidence will provide insight into what types of technological accommodations were made for students for the f2f classroom when classes reconvened. Findings of the study will support future institutional planning in the instance such an abrupt pivot is again necessary.

## **REVIEW OF RELEVANT LITERATURE**

Evidence suggests the form of leaning, whether online or f2f instruction does not necessarily constitute the level of difficulty, sudden pedagogical transition, lack of preparation, and overall unpredictability of the situation proved to cause discomfort for students and faculty alike during the pandemic (Ghazi-Saidi, Criffield, Kracl, McKelvey, Obasi, & Vu, 2020).

While many institutions have offered online learning in the past, the influx of all learning being forced to transform quickly into the online environment proved turbulent. This disruptive moment showed just how poorly higher education, in general, was prepared for this change in instructional delivery (Sutton & Jorge, 2020). Multiple forms of online communication and instructional technology have become the norm due to Covid-19 circumstances: Classtime, Ted-Ed, Coursera, Google Classroom, Skillshare, Adobe Captivate, Edx, and many more. Additionally,

online educational platforms such as Zoom, Cisco WebEx, Google Meet, among others, became more prominent as well (Mishra, Gupta & Shree, 2020).

To understand the student's perceptions of the academic shift to online one year into the pandemic, New America/Third Way partnered with Global Strategy Group to conduct a nationwide survey of current and future college students. When asked what method students would prefer for fall 2021 courses, 26 percent would opt for in-person, 33 percent prefer online only, and 38 percent prefer a mix of online and face-to-face courses. Students were found to be optimistic the pandemic was nearing the end but were less positive about the value of online learning. The majority of students surveyed believe it would be challenging to stay motivated to learn if online only courses were to continue (Klebs, Fishman, Nguyen, & Hiler, 2021).

### **RESEARCH METHODOLOGY**

The authors, comprised of three faculty members and an undergraduate student, examining their experiences and their institutional data lends itself well to the case study approach, naturally due to its particularistic, descriptive, and heuristic nature (Merriam, 1998). Looking at instruction during the pandemic provides a bounded and contextualized contemporary phenomenon (Hatch, 2002).

The three faculty members have each taught for a combined total of 53 years and all have extensive experience in both traditional classroom instruction and online teaching. The undergraduate student is in her fourth year of school and also has experience in classroom and online coursework. The examination of these experiences runs from mid-semester of spring 2020 when all classes pivoted to online instruction to end of the fall 2020 semester when classes reconvened on campus.

Data from the institution was gathered through e-mail communication with the Vice President of Academic Affairs. The authors posed specific questions regarding numbers of courses originally taught online pre-pandemic in the various Schools on campus, the number of faculty providing accommodations when classes returned to campus, and the type of faculty accommodations provided.

### **RESULTS/CONCLUSIONS**

While it is presumed higher education institutions, like most other entities, did whatever was necessary to keep afloat during the pandemic, specific data is useful to determine how this was carried out. Anecdotal evidence from one institution and personal experiences demonstrate resilience on behalf of the students and faculty was key to the success of classes continuing. As explained by Polizzi, Lynn, and Perry (2020), resilience means individuals are able to withstand perilous situations and preserve through various stressors of life. Faculty continued their instruction, regardless of the instructional platform; students persisted through the learning nuances toward completion of coursework.

From the organization perspective, the full requirement of online teaching was necessary through the institutional Learning Management System (LMS), Blackboard, and was key to survival of classes, although not all felt the same. The authors found their experiences, in particular, to be less intimidating from a logistical setup as they each already had LMS course shells intact for all classes. However, the method of instruction is what posed problems. Of note were the larger, freshman-level course who were less prepared for the quick shift to online

learning. They lacked higher-level experience with the LMS and were accustomed to a flipped classroom with access to an instructor for help. These students were less likely to have developed time management skills, and needed more of the instructor's time and attention to help them acclimate to online learning. End results, however, demonstrated these courses maintained a passing rate the same as courses of prior terms.

Challenges also surfaced for students during this quick transition. Students experienced many technical issues, including a lack of access to technology capable of running required programs and limited access to reliable internet. Other students ran into time and focus issues when they went home and instead took full-time jobs. When these difficulties ensued for students who did not choose online learning and preferred f2f instruction, interventions were implemented (i.e., Peru Academic Liaisons-PALS).

When instruction reconvened on campus, necessary accommodations for instruction were utilized, and campus personnel worked to ensure the safety of all individuals. Students and instructors were dealing with masking requirements, cleaning protocols, and social distancing. Of the 52 fulltime faculty, 45 individuals provided accommodations to students. Most commonly reported to the Vice President of Academic Affairs were the following: live Zoom links for classes, Blackboard Collaborate sessions, audio recordings of lectures—often via PowerPoint, video tutorials, online homework/quizzes/tests, and other individualized assistance.

Organizationally, this required changes to locations of classes, class size limitation based upon spacing in the classroom resulting in the need for additional sections with limited space and time availability, and even some creative attempts to instruct students in 'mirrored' classrooms with the use of technology. For example, two of the authors taught in the computer lab and with the use of video cameras and sound equipment, taught their courses to two classrooms simultaneously. This would require the instructor to move back and forth between rooms to answer individual student questions. Issues occurred frequently with the sound and video equipment; students in the second room were less likely to attend and more easily distracted. Failure rates of these classes was double the traditional norm for these particular courses.

In the instance that such an event were to be faced again in the higher education setting, contingency plans would be better developed based upon these trial and error responses that Covid-19 prompted.

### **EDUCATIONAL IMPORTANCE OF THE STUDY**

The educational importance of examining faculty and student experiences related to an abrupt transition to remote instruction allows for insight into future application. Information related to institution response and implementation of technological adaptive pedagogies which were necessary to switch quickly to online learning also surfaced. From this research, opportunity arises for faculty to examine technologies implemented to improve inclusive interactions with students and promote student success. Further, a more thorough review could be sought related to a study of methods used by faculty to meet the needs of students during a global pandemic. As a result, an institution plan can be more readily available to better prepare students and faculty to meet uncertainties of the future.

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