

## ORIGINAL RESEARCH

# College faculty experiences with online teaching during the COVID-19 pandemic

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## ABSTRACT

**Objective:** The COVID-19 pandemic led to a rapid transition in operations for higher education institutions. The delivery of traditional teaching methods shifted to online instruction. Much of the research has explored student experiences during COVID-19 pandemic. The purpose of this project was to explore faculty experiences with COVID-19 in a Midwest state within the United States.

**Methods:** The team utilized a convenience sample of faculty employed at colleges and universities in a Midwest state that taught in the spring of 2020. An email was sent to the faculty, informing them about the nature and purpose of the study and the criteria for participation along with a link to the survey. The survey was a 33-item online survey utilizing Qualtrics®.

**Results:** The sample size for this study was N = 329. Majority of respondents (n = 89) felt that the transition to online learning was difficult. Lastly, common challenges reported were communication with students and peers and isolation.

**Conclusions:** Understanding faculty experiences during the COVID-19 pandemic is essential to future teaching curriculum. The majority of faculty felt that transition to online learning was difficult and affected their mental wellbeing. Communication with students was identified as the biggest challenge for faculty. Yet, faculty felt as though student grades were not affected. As future curriculum and faculty experiences are explored, an emphasis on improving student-faculty communication must be priority. Exploration regarding mental wellness services and resources should be considered for faculty within higher education institutions.

**Key Words:** COVID-19, Faculty Experiences, Higher education in the United States

## 1. INTRODUCTION

The year 2020 was a pivotal year for higher education due to the outbreak of the COVID-19 pandemic.<sup>[1]</sup> Prior to the pandemic, universities were cultural hubs where students lived and studied near one another and were guided by faculty in lecture halls and labs.<sup>[2]</sup> In spring of 2020 universities were compelled to empty lecture halls and stop in person higher education learning as it had been known in response to the COVID-19 pandemic.<sup>[2,3]</sup> Traditional in person classes were canceled and moved to online instruction only. Responses

from universities ranged from no response, pass/fail options and rapid conversion of in person learning to full online instruction.<sup>[4]</sup>

In response to the pandemic, globally 91% of higher education institutions reported that in person learning had been replaced or was in the process of being replaced with remote activities.<sup>[3]</sup> Eighty-four percent of all undergraduates experienced some or all of their classes moved to online-only instruction due to the pandemic.<sup>[5]</sup> The effect of COVID-19

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on higher education and transition to online learning has been visible in admissions and enrollment, institutional finances, student support and resources, study abroad programs, international students and collegiate athletics<sup>[2]</sup> Its effect is being seen globally, within the United States and at the state level.

The first concern of institutions during the transition to online learning was how students would be affected. Faculty were asked to consider the incredible stress students were experiencing and the turmoil surrounding their education plans.<sup>[6]</sup> Yet switching to online learning has had a direct impact on faculty as well. Faculty have been challenged with increased expectations regarding technology, switching classes from in person to online formats, work-home balance, lack of childcare and overcoming communication barriers with students. The purpose of this project was to explore faculty experiences during and after the onset of the COVID-19 pandemic in a Midwest state in the United States.

### 1.1 Review of literature

Several themes have emerged in COVID-19 research between 2020-2022, these are not limited to technology, remote education learning, emergency remote education, digitalization, student experiences, administration challenges and educational outcomes.<sup>[7-11]</sup> While some areas have been widely researched, others have not received the same attention. Understanding faculty experiences may enable researchers to gain important information on how individuals respond, future course design, institutional responses, support structure and technological needs.<sup>[12]</sup> Using the key words: faculty experiences, COVID-19, higher education, and the United States less than 20 articles were identified between 2020 and 2022. This project aims to address this gap by looking at faculty experiences in higher education, later in the pandemic within a Midwest state in the United States.

Crawford and Simon (2021) and Gupta, Janic and Thomson (2022) explored faculty experiences of law professors and dental instructors and found similar results. Crawford and Simon (2021) delivered a short survey with 23 questions (n = 37) and results indicated that during the initial months the pandemic law faculty were under considerable stress and altered their modes of delivery and interactions with students. Gupta, Janic and Thomson (2022) used Qualtrics® to gather qualitative and quantitative data in a 30-question survey (n = 36). Survey results found that faculty tend to gravitate to online methods that are similar to their past in person teaching environment; the switch to online challenged their technological teaching methods, and the overall opinion was that most of the faculty preferred in person student learning. While Crawford and Simon focused on both faculty emotional responses and teaching experiences of faculty, Gupta, Janic

and Thomson (2022) leaned towards educational outcomes and challenges. Both sample sizes were small, limiting generalizability.

Sacco and Kelly (2021) and Morin (2022) explored nursing faculty experiences during the COVID-19 pandemic. Morin (2022) conducted a qualitative descriptive study where 19 baccalaureate nursing faculty engaged in online interviews. Five themes emerged: transition, collaboration and support, joy of teaching, professional experience and stress of the moment. Sacco and Kelly (2021) completed a descriptive quantitative study (n = 117) exploring faculty and academic and clinical roles during the pandemic. Faculty perceived support from institutions and an increased need to provide emotional support to students. Negative faculty experiences included effects on stress and difficulty maintaining a work-life balance<sup>[14]</sup> and concerns about a lack of a dedicated learning environment for students.<sup>[4]</sup>

Johnson et al. (2020) explored U.S. faculty and administrators' experiences across the United States early in the pandemic.<sup>[13]</sup> An online survey was administered to 897 higher education faculty and administrators from 47 states. Faculty placed emphasis on the need for professional development to supplement online courses and technology methods. A large number of faculty expressed feelings of stress and anxiety and a concern regarding student success. Faculty and administrators felt that further assistance was needed related to student support, access to digital material and guidance from working from home. This sample was representative of 697 institutions, with the majority of student enrollment being over 5,000 students. Faculty's experiences researched occurred early in the pandemic in schools with over 5000 enrollments.<sup>[12]</sup>

Faculty experiences amongst other disciplines, have included medical schools, physical therapy, academic health sciences.<sup>[15-19]</sup> Sample sizes ranged from n = 19 to n = 259. Study designs included descriptive methods, mixed methods, qualitative and quantitative data. Negative feedback from faculties included the lack of training for e-learning methods, physical and mental exhaustion, stress, increased workload, after hours work, concern regarding student welfare and communication with students, and concerns regarding lack of in person education. Positive findings included flexibility of the virtual work environment, decreased commuting time, increased knowledge, growth and new opportunities. Recognition of the pros and cons that faculty experienced during the pandemic amongst teaching disciplines can potentially lead to improved student outcomes and revisions of curriculum to meet current student needs.

Sparkman-Key et al. (2021) conducted a qualitative con-

tent analysis examining faculties’ responses (n = 212) to open-ended survey responses. The sample included 4 year and 2-year institutions across the United States. A unique finding to the research reviewed was that faculty responses resulted in mixed experiences. Some felt as though they were strongly supported whereas others felt alone, unheard and under-supported. Certainly, this may be a result of institutional accommodations and individuals’ coping strategies.<sup>[19]</sup>

Through the review of literature, limited articles explored faculty experiences during the COVID-19 pandemic in the United States. Research that has contributed is noted to have small sample sizes and has been limited to specific disciplines such as health sciences. In part this may be secondary to the important role of experiential learning within the health sciences and the impact online education has had on this population of students.<sup>[41]</sup> Attempts have been made to randomly select faculty from universities, including two year and four-year programs across varied disciplines, but response rates have varied. This project seeks to fill a research gap by exploring faculty experiences later in the COVID-19 pandemic, across disciplines, using quantitative data to explore instructional, administration and mental health challenges of faculty within a Midwest state in the United States. COVID-19 has been instrumental in bringing attention to the needs and lack thereof for remote education. Exploring faculty experiences has direct implications for preparation of future health and environmental crises and higher education curriculum.

**1.2 Purpose**

The purpose of this project was to explore faculty experiences with online instruction during the COVID-19 pandemic in a Midwest state within the United States.

**2. METHODS**

Before the study was implemented, IRB approval was obtained in December, 2021 (IRB #22-109). In addition, further review and subsequent exemption from federal regulations was obtained from the Community and Technical College Human Subjects Review Board in a state in the Midwest in December, 2021. Recruitment for the quantitative research focused on a convenience sample of faculty teaching at college and universities in a Midwest state during the spring, 2020 semester. Provosts and deans at universities and colleges throughout this Midwest state were sent the electronic survey and were encouraged to send to eligible faculty. Inclusion criteria included: age 18 and above, English speaking and teaching at a college or university in the Midwest state during the Spring 2020 semester. A short email was sent to the faculty, informing them about the nature and purpose of the study and the criteria for participation along with a link

to the survey. Consent was obtained by engagement of participants in the survey. No personal identifying information was collected, enrollment was voluntary and results were anonymous. Aggregate data were collected.

The survey was a 33-item online survey utilizing Qualtrics® was used to gain a better understanding of faculty experiences with the transition to online learning in response to the COVID-19 pandemic for the Spring 2020 semester. The following research questions were addressed:

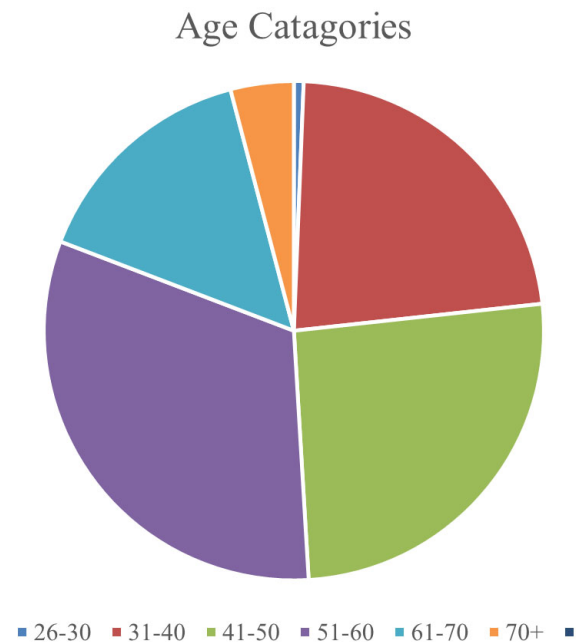
- 1) How did faculty perceive their overall emotional wellbeing/mental health before and after the onset of COVID-19?
- 2) What were the challenges identified with the transition from in person to online teaching?

Data collection was completed from January through March, 2022. At the conclusion of the data collection 320 surveys were completed. Upon completion, the results of the survey automatically were sent to the surveying program Qualtrics® for data analysis, which included the mean and maximum score for each item on the survey in the aggregate. The research team met in August, 2022 to discuss pertinent findings from the data and objectives for data analysis.

**3. RESULTS**

**3.1 Demographics**

The sample size for this study was N = 329. 116 (36.2%) of respondents reported their gender as male, 196 (61.2%) were female, 2 (0.6%) non-binary/third gender, and 5 (1.6%) preferred not to say. One participant did not answer the gender question. The age breakdown was shown in Figure 1.



**Figure 1.** Age categories

Racial identity was 85.9% (n = 275) White, 6.0% (n = 22) prefer not to answer, 2.5% (n = 8) Black or African American, 1.9% (n = 6) Hispanic/Latino and 1.9% (n = 6) Asian, and 0.9% (n = 3) American Indian/Alaskan Native. No responses were elicited for the racial category of Native Hawaiian/Pacific Islander.

**3.2 Emotional health and wellbeing**

Overall emotional wellbeing/mental health was reported as “good” for 48.3% of respondents in comparison to 29.7% after transition to online teaching. When asked about coping methods used with online teaching during the pandemic, a variety of responses were elicited. The most common coping methods identified were watching television/listening to music, talking with family and friends, exercising, eating, reading, praying and meditation. Less than 2% reported using no identified coping mechanisms.

**3.3 Teaching**

About 64.76% of respondents were teaching in an Associate Degree program during the Spring 2020 semester, while 33.97% of respondents reported teaching in a Bachelor Degree program and 1.27% were teaching in a Doctoral Degree program. In the development of this survey this question was not formulated to allow for multiple item selection, and five participants chose not to answer this question. When asked about classroom format, 54.7% were teaching in traditional face-to-face classroom settings prior to the onset of the COVID-19 pandemic, 11.3% were teaching in an online program, and 34.0% were teaching in a hybrid format. Table 1 shows a breakdown of the various disciplines for the faculty respondents.

**Table 1.** Teaching discipline

Discipline	Percentage (%)	Total Count
Humanities and Fine Arts	28.62	91
Science, Engineering and Technology	26.10	83
Other	11.95	38
Business	10.38	33
Nursing	9.75	31
Education and Human Services	5.66	18
Allied Health	5.35	17
Agriculture	2.2	7

**3.4 Challenges faced by faculty**

The research team was interested in examining challenges faced by faculty during the transition to online learning. Faculty felt that the biggest challenge associated with teaching during the COVID-19 pandemic was communication with students (n = 144), with isolation also ranking second (n =

109). Complete results of this question are displayed in Table 2.

**Table 2.** Challenges associated with teaching during COVID-19 pandemic

	Percentage (%)	Total Count
Communication with students	14.98	144
Isolation	11.34	109
Communication with peers	9.47	91
My transition on on-line education	8.64	83
Limited technology knowledge/resources	7.70	74
Dealing with my family day to day	6.97	67
Inability to see my family/ friends	6.97	67
Spiritual	2.60	25
Financial	2.91	28
Transportation	0.21	2
Isolation	11.34	109
Lack of support system	5.10	59
Other	4.37	42

**3.5 Methods of communication**

In relation to communication with students, 29% of respondents reported contacting student 5 or more times on average each week, with 6% having 4 contacts each week, 25% having 3 contacts each week, 26% having 2 contacts each week, and 13% having 1 contact each week, and < 0.4% reporting never contacting students. In comparison, 44% of respondents reported that students contacted them an average of 5 or more times per week, 7% contacted them 4 times per week, 8% 3 times per week, 14% 2 times per week, 24 reported 1 contact with student per week, and on average 4% reported never being contacted by students.

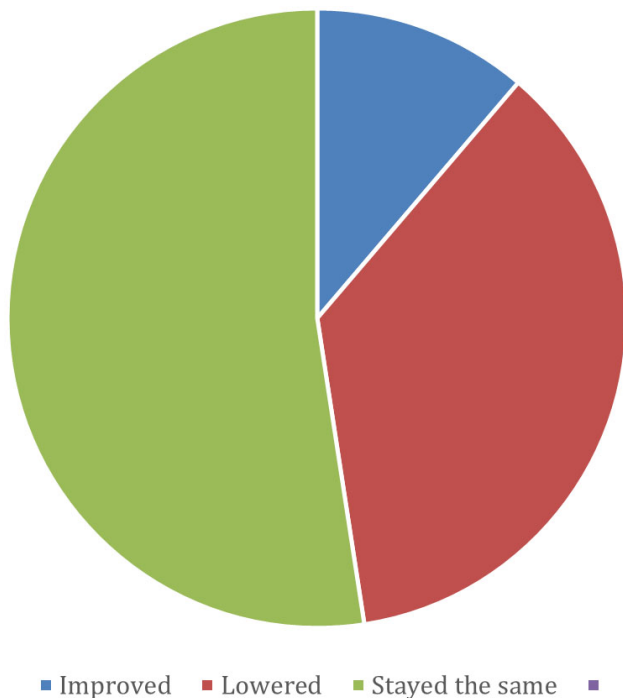
Faculty reported that email was the most utilized method of communication during this time with both faculty and students (76.87% and 87.31% respectively). Text message was the second most common form of communication method students used to connect with faculty.

**3.6 Student grades after transition to online learning**

When asked about student grades, about half (52.43%) of faculty surveyed felt student grades did not change as a result of the transition to online learning. Further breakdown of student grade change is illustrated in Figure 2.

Respondents were asked about the ease or difficulty of transitioning to online teaching after the onset of the pandemic, and the majority (n = 89) reported this transition as “difficult”. When asked about the current method for teaching, 45% of faculty surveyed are conducting classes in person, 7% use a hybrid teaching format, 22% use an online asyn-

chronous format, and 5% use online synchronous methods. One percent use other teaching methods.



**Figure 2.** Student grade after transition to online learning

### 3.7 Preparation and support

Respondents were asked a question regarding time required for preparation before and after online teaching. 41.82% reported 6-10 hours before transition to online teaching. Post online reports were mixed with 21.63% reported 6-10 hours and 23.2% reported an increase at 11-15 hours weekly.

Additional questions discussed levels of support provided by the university. When asked if they felt supported by administrators, the majority of respondents felt supported with 42% responding with “agree” and 23% “strongly agree”.

## 4. DISCUSSION

This survey allowed researchers to gather information from faculty on the effects of transitioning to online learning during the onset of the Covid-19 pandemic. The researchers had previously surveyed students about this transition and were interested in determining the perspectives of faculty.<sup>[20]</sup> This movement to online teaching greatly impacted methods that faculty had been using to educate and evaluate students. The transition to online learning was widespread. The 2019-20 National Postsecondary Student Aid Study (2021) confirmed that 84% of undergraduates had some or all of their courses moved to online learning. Teachers were also required to use technology and teaching methods that may have been unfamiliar to them.

The majority of respondents (n = 89) indicated they found the transition to online learning difficult. This information supported the findings Johnson et al. (2020) reported. Their research indicated faculty needed additional direction for working with students from home and accessing digital materials and expressed concerns about student success. These findings were also consistent with the study performed by Gupta et al. (2022) who found that faculty preferred to use their traditional methods and were challenged by online methods. Morin (2022) also noted that teachers were concerned about the learning environment for students.

The results of the survey indicated that communication with students was the biggest challenge for faculty. Communication with peers was also a significant finding. Further research could help identify the meaning behind these choices. It would be important to evaluate whether faculty felt there was lack of frequent contact with students, too frequent contact, or if email was simply an ineffective method of communicating with students. The data revealed 44% of faculty communicated with students five or more times per week so they may have felt overwhelmed by this frequent amount of communication which could be time consuming. Further research would be valuable to understand what the frequent communication related to and if it caused additional stress for faculty.

Another important finding related to student grades. About half (52.4%) of faculty felt that the transition to online learning did not affect the grades the students received. It was also reported that 36% of student grades had lowered. The study by Johnson et al. (2020) indicated that faculty were stressed about the concern for student grades. Interestingly, research regarding student grades during the pandemic demonstrated an increase in student grades. Supriya et al. (2021)<sup>[21]</sup> conducted a study in the United States comparing a traditional online biology course to an in-class biology course that transitioned to on-line; grades were slightly higher for both compared to previous semesters. Karadag (2021)<sup>[22]</sup> noted a small amount of grade inflation during COVID-19 as compared to previous semesters. Although students’ grades were higher, students reported a negative impact on their learning, interactions with peers and instructors, feeling part of a campus community and career preparation.<sup>[21]</sup> Over half of faculty surveyed felt grades were not impacted. Further exploration of the effects of COVID-19 pandemic on student mental health and college experiences should be explored.

Interestingly, a prior survey that was sent to students by the research team indicated that students felt isolation was the most significant challenge during the transition to online learning.<sup>[21]</sup> The faculty survey listed this as the second

biggest challenge. Further research might identify factors that led to each group's response to this question. With isolation being one of the top concerns for both faculty and students, it is important to consider the long-term effects this had on both groups. The results indicated that overall emotional wellbeing/mental health declined during this transitional period. Nearly half of faculty respondents reported good mental health before the pandemic, with the rate dropping to 30% afterwards. Administrators should consider mental health resources to support both students and faculty. This could include resources for debriefing after the pandemic, along with mental health support services on campus.

## 5. CONCLUSION

The COVID-19 pandemic had a profound impact on college campuses. While student experiences cannot be dismissed, it is equally important to explore faculty experiences. Faculty experiences identified as areas of concern included emotional health and wellbeing, concerns regarding lack of ability to communicate with students and feelings of isolation. Majority of faculty identified the transition to online learning as difficult, but did not feel as though student's grades were affected. Further research is needed to explore faculty-student communication strategies. Implementation of resources such

as mental wellbeing support services and resources should be available for faculty. Administrators should also consider these opportunities while planning for future impacts to teaching and learning.

## Limitations

One limitation of this study is that the response rate is not known. The researchers relied on Provosts and Deans to share the survey link with eligible faculty members and are not aware of the exact number of surveys distributed.

A challenge with this study is the limited number of available choices when questioned about the online transition. Stress was not an available option, yet studies from other disciplines found stress to be a significant concern. Another weakness of the study is the lack of responses related to institutional support. The qualitative study by Sparkman-Key et al. (2021) found mixed results when this question was posed.

The largest number of respondents were from Humanities and Fine Arts and Science, Engineering, and Technology programs. Further research could compare results from individual majors to determine if disciplines had similarities and/or differences with moving to online learning.

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare that they have no competing interests.

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