Course Facilitation During a Time of Global Pandemic

by

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ABSTRACT

The Covid-19 global pandemic saw many college and university faculty scrambling to quickly transition their on-site courses online owing to various city, state, and national lockdowns and social distancing efforts in order to stem the spread of the disease. Nearly 90 percent of institutions had to resort to some sort of online or remote learning in order to accommodate continued student learning amongst the lockdowns and required social distancing that was implemented. Similar methods were implemented for the following summer and fall semesters of 2020, bleeding into the spring 2021 semester. These restrictions meant that faculty could not teach their courses wholly, or in some circumstances at all, in an on-site delivery method. Instead, many higher education faculty members had to make the shift to teaching their courses completely online, or in a mixed method of delivery, on-site and online. The purpose of this study was to determine if learner-centered teaching was a key component of the quick transition of on-site to remote teaching in the Spring and Fall 2020 semesters and how this information may provide insight for future online course development.

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CHAPTER 1

INTRODUCTION

The Covid-19 global pandemic saw many college and university faculty scrambling to quickly transition their on-site courses online owing to various city, state, and national lockdowns and social distancing efforts in order to stem the spread of the disease. According to a study performed by Bay View Analytics (2020) that surveyed 826 faculty and administrators at 641 institutions of higher education across the U.S. during the spring 2020 semester, nearly 90 percent of institutions had to resort to some sort of online or remote learning in order to accommodate continued student learning amongst the lockdowns and required social distancing that was implemented. Similar methods were implemented for the following summer and fall semesters of 2020, bleeding into the spring 2021 semester. These restrictions meant that faculty could not teach their courses wholly, or in some circumstances at all, in an on-site delivery method. Instead, many higher education faculty members had to make the shift to teaching their courses completely online, or in a mixed method of delivery, on-site and online.

The timeframe of this transition was unprecedented for its short duration and massive simultaneous effect on college and university faculty across the U.S. with many faculty members having less than two weeks to figure out how to transition their courses (Burke, 2020). Although similar short timeline transitions have occurred for specific degree programs at specific institutions of higher education in the past (Maid and D'Angelo, 2013), nothing at this scale had been seen before in the online education arena.

University faculty are not generally taught how to teach in the same systematic manner that Kindergarten-12th grade (K-12) teachers are, instead largely being informed by discipline-specific pedagogy, watching other faculty teach, and simply learning from teaching (Minter, 2011). Even when faculty members are experts in their discipline-specific pedagogy, teaching online often presents a whole new set of requirements for teaching. Due to the informal manner of learning how to teach at the university level, transitioning on-site courses to an online format generally takes time and a concerted effort to ensure a successful conversion of course delivery. Truncating that timeline potentially presents concerns for longer term faculty, especially if they have never taught online previously.

Course facilitation, how an instructor fosters the learning environment for students, is an important factor in teaching college and university level courses and informs nearly every aspect of course delivery. Attaining specified learning outcomes and student success are generally the focus of course facilitation techniques. The course delivery mode helps to guide the course facilitation techniques employed. Successfully delivering courses on-site, online, or in a mixed mode all require different tactics in employing course facilitation techniques to meet the learning outcomes and providing for student success in a course.

Comparing and contrasting how the faculty at two public universities with different research statuses, enrollment sizes, and historical experience with providing online education, approached the transition from on-site to online course facilitation in an extremely shortened timeframe provides insight into how learner-centered course facilitation can function in online courses. The two public universities studied were

Arizona State University (ASU), and the University of Colorado Colorado Springs (UCCS). ASU is a large Research 1 (R1) institution with enrollment exceeding 120,000, and a robust history of online course and degree program delivery. UCCS is a mid-sized Research 2 (R2) institution with enrollment around 13,000, and only in the early stages of delivering a handful of online degree programs. These two campuses were selected due to the expected differences in responses from a well-resourced, online progressive school (ASU), and a low-resourced, online implementing school (UCCS), to see what commonalties and differences may exist owing to existing structural differences.

This study was an attempt to determine if learner-centered teaching is a primary tactic of course facilitation methods for a short duration transition from on-site to online learning in a university setting as experienced during the Covid-19 global pandemic at the two public institutions of higher education. Furthermore, the study attempted to gauge the scope of approaches to course facilitation during this short-term transition that can be viewed as best practices.

CHAPTER 2

REVIEW OF THE LITERATURE

**Online Education**

Online education in the U.S has increased dramatically over the past decade

growing from around 25 percent of students in 2012 to over 35 percent of students in

2019 taking at least one of their courses each semester online (NCES, 2020). Online

education has proven to be a disruptive factor in higher education creating new

competitive markets and forcing many academics to rethink how courses are developed

and delivered to students. These changes can largely be seen in the manner in which

instructors facilitate their courses (Altman, et. al., 2018). Courses and programs built

specifically for online delivery needed to provide the course experience in an appropriate

manner for the available online platforms. Online course delivery has required new

methods to create course engagement and to improve retention of predominantly online

students (Boston, et. al., 2019).

The proliferation of online courses and degree programs in higher education over

the past two decades has led to a lot of research regarding how to effectively translate on-

site, in-person, courses to an online learning format while retaining the important learning

outcomes of a course. Student to instructor course engagement, either direct or indirect

interaction between a student and the course instructor, has been shown to be a primary

factor for student success in online courses. In a study conducted by Boston, et. al., in

2009 of over 28,000 online students, the researchers found that the two primary factors

that contributed to student retention in online programs was the ability to develop a

"presence" in a course. This "presence" was seen by students as feeling as if they were

part of a larger social structure within the course itself. The social structure in this study was largely shown to be facilitated by the instructor of the course and how they engaged individual students and the course as a whole.

Martin and Bollinger (2018) examined three separate course engagement factors: Instructor-to-student engagement, student-to-student engagement, and student-to-content engagement. Although all three factors played a role in student success, the most predominant strategies that effectively engaged students in the online courses centered around instructor to student engagement. This particular vector of course engagement was predominantly notated by study participants due to timely instructor feedback on assignments, instructor presence in the course through course discussions, lectures, and weekly guidance, and instructor support for individual students and the course as a whole. Brazleton (2020) summarizes much of this research into course engagement when she states, "I argue that a pedagogical decision of serving as a relationship manager in online education can create an environment where engagement is present by design." Although the delivery method is virtual, the engagement is perhaps more important than an on-site course would present an requires an intentionality of course design where the students feel a partnership with the instructor.

## Learner-Centered Approach to Teaching

Learner-centered teaching has had a sizable adoption rate in K-12 education over the past couple of decades. Higher education has been much slower to adopt this teaching approach. However, as Duffy and Kirkley (2015) indicate in the introduction to their book, the learner-centered approach has seen successful implementation in higher

education with distance and online degree programs and may be at the core of successful online course delivery in higher education and beyond.

A simple definition of the learner-centered approach to teaching is that it puts learners' interests first by identifying their needs as central to the learning process. The learner-centered approach couples a focus on individual student's backgrounds and previous experience, knowledge, and skills, with a focus on the learning process in a collaborative environment (Lawless, 2019). Generally speaking, in learner-centered courses the instructor moves from a telling model to a partnership model wherein the student and the instructor are partnering to achieve the learning needed for the student (Brazleton, 2020). This partnership can take several different forms depending on the course content and instructor preference, but can generally be lumped into two overarching, yet closely related, models: problem-based learning and sociocultural design (Grabinger, 2015, Savery, 2006). Both models utilize an active learning approach, but each implements the approach in different ways.

Active learning employs an internal regulation of the learning process as opposed to an external mechanism. The learner is an active participant in the learning process not solely a receptacle for knowledge deposits by an instructor (Bell & Kozlowski, 2009). Active learning is not necessarily hands-on learning or working with a group, but rather incorporates cognitive engagement in the learning process that goes beyond internalizing knowledge from external sources and engages in active knowledge construction. Active learning is at the heart of both the sociocultural design and problem-based learning approaches to learner-centered instruction.

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Sociocultural course design is based on sociocultural theory which posits that true learning is a cultural and collaborative process among peers as much as it is instruction-based. It seeks to coherently contextualize knowledge acquisition within its usable environment. Rather than breaking up knowledge is distinct units of information, taught in a linear manner, sociocultural design contextualizes each step of the knowledge acquisition process and integrates it into the actual culture in which the knowledge will be applied (Grabinger, 2015). This design philosophy allows for a more collaborative effort between instructor and learners by affording even footing to both sides in the learning process. It also requires the learners take on a self-regulatory role in their learning process.

Problem-based learning "…empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem (Savery, 2006)." Ostensibly problem-based learning allows learners to engage multiple facets of the learning process while applying said learning to a given real-life challenge. The instructor in this type of learning is the facilitator of learning rather than the source of learning. Instructors provide the resources needed to solve the problem but allow the learners to decide what they need to know in order to solve the problem and what resources are needed to do accomplish their tasks. Similar to sociocultural course design, problem-based learning relies heavily on learner self-regulation to ensure learning outcomes.

Both the sociocultural and problem-based learning approaches require student engagement and necessitate a learner-centered approach to course design. They both provide a learning environment where the instructor becomes a companion on the

learning journey as opposed to the sole font of knowledge. In the online education environment, which is often self-directed, these approaches can be necessary for achieving successful learning outcomes (Duffy & Kirkley, 2015). Thusly, learner-centered theory provides a solid theoretical viewpoint from which to evaluate course facilitation practices in online learning.

## Course Facilitation

Course facilitation in higher education at its most basic level can be defined as the activities an instructor engages in for the purpose of educating students (Berge, 1995). Course facilitation varies greatly across academic disciplines and across course modalities, but most on-site course facilitation tends to incorporate three primary aspects. The first aspect is teaching pedagogy which tends to incorporate discipline-specific ways of teaching and learning in addition to an individual instructor's preferred methods of teaching their students. The second aspect is social which tends to focus on how the instructor interacts with their students and facilitates interactions between students. The final aspect is managerial which deals with components of the course like learning modules, exams, papers, etc. (Martin, Wang, and Sadaf, 2020).

For on-site courses, instructors have more granular control of their course facilitation techniques because they can easily adjust to the students as the course proceeds. Instructors can use the physical environment, and immediate instructor intervention, in their course facilitation practices in order to govern the social aspects of a course. Additionally, on-site courses tend to offer greater flexibility in managing course content and making adjustments based on the immediate feedback of the students. Online courses have these same aspects of course facilitation, but add another dimension, the

technical. Different strategies are required for online courses in order to emulate the same factors that are available in on-site courses. Recent research has begun to provide guidance on key aspects for successful online course facilitation. These strategies tend to fall into four primary categories: pedagogical, social, managerial, and technical (Martin, Wang and Sadaf, 2020; Martin and Bollinger, 2018; McGee, Windes, and Torres, 2017).

The primary concern of the pedagogical factor of course facilitation is how best to teach the material to the students in the course. Teaching pedagogy is largely informed by three factors. The first factor is discipline-specific standards. These standards vary greatly from one discipline to another, but they tend to align within the discipline itself. Faculty often learn these pedagogies as students in post-graduate programs while pursuing their advanced credentials. The second factor is time spent watching experienced instructors teach and learning from the example. Many disciplines will engage potential faculty in shadowing efforts either as teaching assistants or adjuncts. However, many faculty members get little, if any, instruction on how to teach at the university level. The third factor is developed by the teaching experience itself, learning as they go. Student feedback and demonstrated learning outcomes are often the most prevalent teacher for university faculty members (Minter, 2011). Many instructors are able to tap into these three factors over years of study in their discipline and interaction with other faculty in on-site courses.

The online arena presents some challenges to the traditional pedagogy acquisition and implementation. Online pedagogical concerns require a more focused and purposeful communication of intended learning outcomes, feedback on student assignments, and the ability to manage said feedback among various modalities (e.g. web conferencing, email,

discussion posts) (Martin and Bollinger, 2018; Berry, 2018). In addition to discipline-specific pedagogy, instructors for online courses also have to contend with modality-specific pedagogy. That is, the online format often requires a separate online pedagogy in order to attain the same learning outcomes as an on-site course (Scopio & Luyt, 2015). Research over the past 5 years largely points to a student-centered, or learner-centered, pedagogy when constructing online courses (Martin and Bollinger, 2018; McGee, Windes, and Torres, 2017, Scopio & Luyt, 2015).

The primary concern of the social factor of course facilitation is how the instructor can best create a sense of community in the course and ensure that students are connected not only to the instructor, but also to each other. The social factor can be broken down into several components that greatly impact the efficacy of online course facilitation: instructor presence, course engagement, and course delivery (Martin, Wang & Sadaf, 2020). These three components of developing the social environment for an online course can play a vital role in the success of an online course across different teaching and learning pedagogies.

Instructor presence at its most basic level is, according to Richardson, et. al. (2015), "…the specific actions and behaviors taken by the instructor that project him/herself as a real person." In other words, instructor presence is how visible an instructor is in a course as a real person. Developing a clear course presence through interaction with students both individually and within the course shell itself demonstrates to students that the instructor is not just a voice in the void, but rather engaged as much as the student. In this respect the instructor becomes a facilitator of knowledge acquisition as much as a provider of information (Martin, Wang & Sadaf, 2020). Presence has a clear

impact in online courses insofar as students feel more engaged in the course content when they feel as if they are engaging directly, and indirectly, with the course instructor (Martin & Bollinger, 2018).

Course engagement is one of the primary factors in student success in courses regardless of delivery method. In online courses instructors need to manage this social interaction in multiple modalities, not just in face-to-face, or email, like they would tend to do in on-site courses (Martin, Wang and Sadaf, 2020). Although instructor presence is a primary factor of course engagement, it also includes engagement with other students in the course and engagement with the course material itself. Due to the inherent isolation that can come with online courses, building a student-to-student interaction environment is an essential component for online courses. The use of discussion boards with both consistent student and instructor engagement can promote an active learning environment where students feel connected to each other (Banna, et. al., 2015). Student-to-content engagement can take many forms, but the ability to access, manipulate, and apply knowledge resources to the course content tends to have the greatest impact on course engagement (Martin & Bollinger, 2018, Banna, et. al., 2015).

Course delivery can largely dictate other social factors for course facilitation. Courses are delivered in a synchronous, real-time interaction, format, an asynchronous, anytime interaction, format, or a hybrid of the two. Delivery of the course affects how best to engage students in the social aspects of a course (Vlachopoulos, Jan and Lockyer, 2019). Synchronous online courses tend to benefit the most from video-conferencing and online chat capabilities for engaging in course content, but there is also evidence that functionality like breakout group chats can have a large impact on course engagement

(Banna, et. al., 2015). Asynchronous online courses tend to benefit the most from clearly defined, and well prompted, discussion posts with robust instructor presence, but also directly benefit from peer feedback exercises (Onodipe, Ayadi, & Marquez, 2016).

The primary concern of the managerial factor of course facilitation is how the course is constructed. Course learning outcomes tend to drive this particular factor, but necessitate the creation of appropriate syllabi, course assignments, course discussions, and any other aspects to reach those learning outcomes. Effective management of a course requires the instructor to be aware of appropriate timing for assignments and for quick and useful feedback to students (González-Sanmamed, Muñoz-Carril, & Sangrà, 2014). Creating effective tools to manage these aspects of a course are instrumental in student's learning the material sufficiently. An effective syllabus that clearly outlines assignment due dates and expectations is an essential part of the course management factor. Other components such as regular course announcements and a video orientation to the course have shown to be useful for students in online courses (Martin, Wang and Sadaf, 2020). Structuring these aspects in an online course effectively requires close attention to concise communication and a clarity of language that needs to be understandable to students without instructor intervention (Obizoba, 2015).

The primary concern of the technical factor of course facilitation is how to best leverage the available technologies for course delivery. The specific available technologies for teaching online can vary from institution to institution, so general strategies for the types of technologies available are more useful than platform specific guides. The predominant technology in use currently is learning management systems (LMSs), which can be used for on-site, as well as online, courses (Bower and

Vlachopoulos, 2018). The most common LMS platforms are Blackboard from Blackboard, Inc., and Canvas from Instructure, Inc. In general, these two platforms offer similar experiences in terms of functionality, so utilization of the platforms is largely a matter of availability to instructors where they teach.

LMSs offer course shells that can be built out by faculty or instructional designers to facilitate a course. The LMS generally offers features like the ability to submit assignments, course announcements, discussion boards, embedded video, setting up learning modules based on the syllabus, tests and quizzes, and the ability set students up in groups for assignments and discussions, among others. The LMS allows students to see their grades as assignments are graded and track their progress through a course. Additional resources like web-conferencing software, streaming media, email, social media, and cloud sharing can also be employed in course facilitation (Bower and Vlachopoulos, 2018).

For on-site courses the LMS features offer an added value for the instructor, but for online courses they become imperative to meet the technical factor of course facilitation. Not only do instructors need to be experts in their content area, but they also need to be experts in the technology in order to effectively set up their course for online delivery. The technical factor connects the other three ways to present a cohesive package for students. Additionally, as Martin, Wang, and Sadaf (2018) indicate, the use of multi-media presentation has been shown to be an effective tool for course learning in online courses. So, instructors need to understand the LMS, but also other technology like streaming platforms (YouTube, Netflix, etc.), presentation software, and others. The technical factor ultimately is the main difference for online education.

In the final analysis, online course facilitation requires a different mindset than on-site course facilitation and a deep examination of how to effectively emulate, not imitate, the on-site experience while maintaining relevance for the platform and focus on the learner (Lowenthal, et. al., 2019). Although many colleges and universities have been developing and delivering online courses and degree programs for over 20 years, at no point in time has the entirety of faculty had to make this adjustment simultaneously. With an estimated 90 percent of the nearly 1.5 million college and university faculty in the U.S. (Bay View Analytics, 2020) making this shift simultaneously in the spring of 2020, the expansion of online teaching has never seen comparable growth, even if the growth is largely temporary. Despite the research that has been done recently, this unprecedented event should open up these discussions much further than ever before and provide novel solutions to long-term problems with online course and degree program delivery.

CHAPTER 3

RESEARCH AND DATA ANALYSIS METHODOLOGY

This study employed a multimodal approach via the use of one primary research instrument in addition to existing research on the conversion from on-site to online conducted by both Arizona State University (ASU) and the University of Colorado Colorado Springs (UCCS) during the Spring and Fall 2020 semesters (see Appendix A for the survey instrument). The multimodal approach simultaneously collected both quantitative and qualitative data. Although this approach is most often used across two instruments, for example a survey and interviews, this study collected both sets of original data in one instrument. The primary research instrument was a survey that gathered both quantitative and qualitative data relevant for the overall study. Quantitative data was captured with close-ended questions with either definitive, or scaled, response options. Qualitative data was captured with open-ended questions with long form answer options. The survey was built in Qualtrics Experience Management software.

Although the study was largely a multimodal design, it also incorporated aspects of an exploratory study owing to the primary research purposes. Thus, the study research was a combination of both convergent and exploratory mixed-methods interpretations looking at both what happened during the forced transition (convergent) and what innovative and novel strategies emerged as a result of the forced transition (exploratory), with special consideration for practices that align with learner-centered approaches to teaching.

The multimodal methodology was selected primarily because the research problem was best explored with qualitative data enforced by concrete quantitative data.

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Quantitative data alone in this research area could provide answers regarding the what of behavior patterns, but the data would have lacked any insight into the why, or how, driving those patterns. Qualitative data on its own could provide insight into specific faculty behavior during the transition, but the data would lack any determination of patterns driven by the transition from on-site to online. The multimodal approach allowed for a fuller view of the behavioral patterns from the what, how, and why, of the patterns that emerged during the transition. Additionally, incorporating both qualitative and quantitative data allowed for greater insight into specific course facilitation strategies and, ultimately, to determine if learner-centered teaching was a tactic used by faculty.

The survey was sent via an email request to the full faculty at UCCS on January 11, 2021 with a follow-up email reminder on January 27, 2021. Direct emails to faculty in the W.P Carey School of Business and the Herberger Institute for Design and Arts at ASU were sent out on January 11, 2021. Additionally, several other schools and Colleges either sent out an email to their faculty, or an announcement for participation in the survey between January 5th and January 25th, 2021. The additional schools included the College of Liberal Arts and Sciences, the College of Integrative Sciences and Arts, the Ira A. Fulton School of Engineering, the College of Health Solutions, and the Edson College of Nursing and Health Innovation. Survey data was collected on February 7, 2021.

The potential respondent pool was approximately 2500 faculty across the two universities. The faculty ranged from adjuncts to fully tenured professors. The goal was to capture the experience of transitioning courses which should largely be agnostic to employment level.

Data was analyzed across two measures. The quantitative data from the survey provided baseline information regarding measurable behavior during the time period being surveyed, Spring and Fall 2020 semesters. The quantitative data was analyzed using the available tools in the full version of Qualtrics, with additional outside resources, as needed for comparative data analysis. Namely, the common data set was used for each institution to compare faculty respondent demographics. The quantitative data was largely summative and provided patterns of behavior across the entire data set, as well as comparative data sets between the two institutions studied. The quantitative data also provided some guidance for coding the themes that emerged from the qualitative answers to the questions from the survey.

Initial qualitative data analysis was done assisted by the qualitative data analysis software MAXqda. The majority of the open-ended responses accompanied a quantitative question, or set of questions, and the quantitative data drove the initial setting of themes. The qualitative data was then reviewed multiple times to refine the emergent themes. The two longer form open-ended responses (questions 44 and 45) pulled their initial themes from the overall quantitative data set as well as themes that emerged from the other open-ended responses. The initial coding of these two sets of responses differed, but upon a re-review of the themes, the two questions were ultimately coded against the same set of themes.

The sampled population consisted of approximately 2500 faculty of all types across the two universities, with approximately 750 respondents at UCCS and approximately 1750 respondents at ASU. The response rate was around 10 percent from UCCS and around 4 percent from ASU faculty. The higher response rate at UCCS was

largely due to the ability to directly email all faculty in one message as opposed to ASU where emails had to be sent either to individual faculty members or shared through a college's dean's office email or posting.

Validation of research findings was captured within the survey instrument itself via congruence of quantitative and qualitative data. Validation of demographic data was done via each institution's common data set.

CHAPTER 4

RESULTS

This chapter presents the results addressing the primary research questions of this study.

**RQ1:** Was learner-centered teaching a primary tactic of course facilitation methods for a short duration transition from on-site to online learning in a university setting as experienced during the Covid-19 global pandemic at the two public institutions of higher education?

**RQ2:** What was the scope of approaches to course facilitation during this short-term transition that can be viewed as best practices?

Additionally, the study attempted to investigate the differences in responses and tactics between two different public universities with different resource levels and historical experience with online education to see if that variable was a potential factor in faculty approaches to transitioning courses.

**Study Sample**

The survey instrument (*see Appendix A*) that was used to collect the data for this study was sent to approximately 2500 potential respondents across both institutions. The number of respondents who engaged with the survey was 166, with seven respondents opting out at the informed consent question. The total number of respondents that provided data for the survey was thusly 159.

Demographic data was collected from these respondents primarily to determine if the respondent pool was an accurate reflection of each institution's faculty population. Overall, the demographics largely matched those from each institution as reported in their

common data set (CDS) (Hyduke, 2020; Marschke, 2020). The CDS is a collaborative

effort among institutions of higher education, and publishers of comparative higher

education data, to provide a standardized set of relevant cohort data for students across

higher education. The CDS provides broad-ranged data regarding students at each

institution for each academic year. The CDS also provides basic data regarding faculty

demographics which were the basis of determining representative populations at each

institution. Table 1 displays the demographic break-down of faculty respondents.

Table 1

*Survey Demographics*

| Demographic | ASU | UCCS |
|---|---|---|
| *Gender Identity* | | |
| Female | 46 | 49 |
| Male | 36 | 23 |
| Non-Binary/Third Gender | 0 | 0 |
| Prefer Not to Say | 1 | 2 |
| *Ethnic Identity* | | |
| American Indian/Alaska Native | 1 | 0 |
| Asian | 9 | 4 |
| Black/African American | 0 | 2 |
| Hispanic/Latino/a | 3 | 0 |
| Mixed ethnicity | 2 | 1 |
| Native Hawaiian/Pacific Islander | 0 | 0 |
| White | 65 | 60 |
| Other | 1 | 3 |
| Prefer not to say | 2 | 4 |
| *Age Group* | | |
| Under 30 | 2 | 1 |
| 30-39 | 17 | 17 |
| 40-49 | 24 | 19 |
| 50-59 | 21 | 18 |
| 60-69 | 16 | 17 |
| 70-79 | 2 | 2 |
| Prefer not to say | 1 | 0 |
| *Faculty Type* | | |
| Adjunct | 7 | 6 |
| Clinical | 15 | 1 |
| Lecturer | 7 | 12 |
| Instructor | 13 | 23 |
| Research Faculty | 4 | 0 |

| | | |
|---|---|---|
| Tenured/Tenure Track | 32 | 29 |
| Other | 5 | 3 |
| *Highest Degree Attained* | | |
| Bachelor's Degree | 1 | 3 |
| Master's Degree (non-terminal degree) | 12 | 14 |
| Master's Degree (terminal degree) | 12 | 9 |
| Doctorate Degree | 58 | 48 |
| *Years Teaching in Higher Education* | | |
| >10 | 33 | 22 |
| 10-19 | 20 | 22 |
| 20-29 | 19 | 20 |
| 30-39 | 6 | 9 |
| 40-49 | 5 | 1 |

Two criteria differed between the reported demographics and those of the respondents, gender and highest degree achieved (*see Appendix B*). There was a higher percentage of female respondents at each institution. ASU had a 13 percent higher female percentage of respondents and UCCS had a 11.6 percent higher female percentage. Both institutions had around a 14 percent lower male percentage than reported on the CDS. Highest degree completed, namely doctorate or terminal degrees, was slightly higher at ASU at around five percent, but it was significantly higher at UCCS at around 28 percent. These differences potentially skew the results of the survey data towards female tenure-track faculty tactics and course facilitation techniques as opposed to pulling a fuller picture that more accurately represents the populations at each institution.

Two additional demographic factors were tracked in the survey instrument, age group and years teaching in higher education. These two demographic factors, which are not reported in the CDS from each institution, were statistically similar at each institution to the effect that they played no role in differences of responses between the two institutions. With that said, there was a problem with the years teaching in higher education demographic questions in that it was open-ended allowing the respondent to fill

in the years taught. This proved problematic with using the factor to investigate any connection between teaching experience and subsequent answers. The responses were re-coded into year ranges akin to the age question to better facilitate potential analysis around the teaching experience factor (*see Appendix B*). However, years teaching in higher education had no statistically significant correlation with course facilitation tactics or ease of transition.

## Data Collection

The remainder of the survey beyond demographic data was focused on collecting both quantitative and qualitative data around the four pillars of online course facilitation, the learner centered approach to course facilitation, and any potential best practices that arose from the quick transition from on-site to remote learning during the Spring and Fall 2020 semesters.

Questions 10-11 focused on establishing a baseline of how many faculty respondents had previous experience teaching online in various formats. Questions 12-22, and 31-33, focused primarily on the technical aspect of course facilitation looking at which resources faculty members used to aid their transition from on-site to remote learning. Questions 23-30 focused primarily on course design, which speaks to the managerial and pedagogical aspects of course facilitation, and the easy and difficult aspects of course design to transition. Questions 34-43 focused primarily on faculty perception of how successful their course transition was each term and how successfully their students learned the material. These questions addressed the pedagogical and social course facilitation aspects.

Question 44 was an open-ended question attempting to gather additional qualitative data with regard to the development of on-line courses in contrast to on-site courses. Question 45 was an open-ended question allowing faculty respondents to provide any insight into the aspects of the course transition that were surprising. These last two questions were an attempt to provide insight into potential learner-centered course facilitation tactics and best practices for these types of transitions in the future.

## Survey Data

### Transition Technology

Since technology was such an important aspect of the transition from on-site to remote teaching during the Spring and Fall 2020 semesters, the initial set of survey questions focused on the usage of this technology to facilitate the transition. The first two questions (Q10-11) were used determine if previous experience with teaching online had any impact on subsequent answers. These questions also allowed for a comparison between the usage of the technology at ASU and UCCS to see if there were differences between the two institutions. Interestingly enough, there was no statistically significant difference in usage based on previous experience with facilitating online courses, or between the two institutions. Despite ASU having a more fully developed online education program, the faculty respondents from UCCS had slightly higher usage of the Canvas LMS as well as additional technology for course facilitation both pre-2020 and throughout the Spring and Fall 2020 semesters (*see Appendix C*). Since the difference in usage was not statistically significant, the data set for the technical questions (Q12-Q22, Q31-33), were treated as one data set rather than parsing out the two campuses.

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Questions 12-14 set a baseline of usage of the Canvas LMS pre-2020 in order to compare its usage during the Spring and Fall 2020 semesters. Questions 15-17 looked at Canvas usage for the mid-semester transition to remote learning in the Spring 2020 semester. Questions 18-20 looked at Canvas usage for fully online and hybrid on-site and online courses for the Fall 2020 semester. The purpose of splitting out the three timeframes was to establish whether, or not, there was additional adoption of the technology and its various features owing to increased exposure to the tool over time. The overall usage of Canvas was similar prior to 2020 and throughout the Spring and Fall semesters with only a slight change in usage of around two percent between the three semesters (*see Appendix C*). Individual components of Canvas saw similar usage patterns across the three time periods with a few notable exceptions. Module set-up, quizzes/exams, and discussion boards all saw a noticeable increase in usage as shown in Figure 1. These components tend to be the most time consuming and/or complex to set-up and manage, so the increased usage speaks to a utility seen by faculty for these particular tools within Canvas.
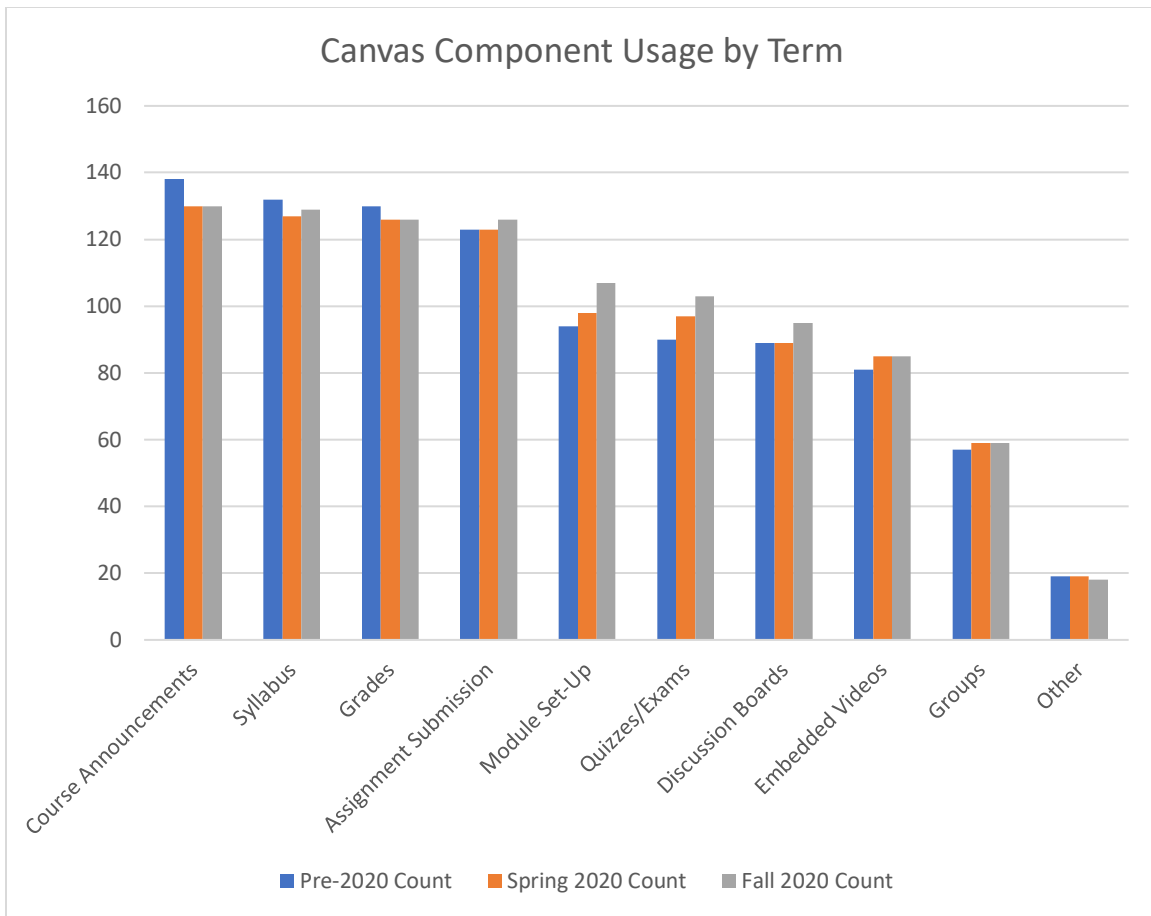
*Figure 1. Chart showing Canvas component usage pre-2020, Spring 2020, and Fall 2020. Module set-up, Quizzes/Exams, and Discussion board usage saw relevant increased usage.*

Questions 14, 17, and 20, asked faculty respondents why they did not use Canvas in the three timeframes. The overwhelming number of respondents that indicated that they did not use Canvas cited reasons of either not teaching for that particular timeframe or were already using some other online tool for course facilitation (*see Appendix C*). Considering the reasons given, the non-usage of Canvas was insignificant to this study.

Question 21 investigated what type of technology that faculty used outside of the Canvas LMS. Eighty-five percent of respondents used some sort of web-conferencing tool like Zoom, Microsoft Teams, Webex, or Discord. Half of respondents used some sort of video streaming tool like YouTube or Vimeo to supplement their teachings. One

unexpected difference between respondents at the two institutions did crop up with this particular question. Faculty at ASU were twice as likely (around 50 percent of ASU respondents) to use cloud-sharing software as opposed to UCCS faculty (around 28 percent of UCCS respondents. This may be one factor influenced by the historical online differences between the two institutions. Otherwise, responses on this question were similar between the institutions.

Question 22 looked at which resources faculty respondents used to learn the tools that they used for the transitions. Fifty-seven percent of respondents used campus-based resource centers or departments. Forty-eight percent of respondents used other faculty as resources. Approximately fifty percent of respondents used either a web-based tutorials or software specific websites. Around fifteen percent of respondents did not use any resource owing to previous experience using the online education tools available (*see Appendix C*). Overall, the overwhelming majority of faculty respondents sought out some type of assistance with transitioning their courses.

Questions 31-33 delved into whether faculty respondents saw the technology as a help or a hindrance to the transition to remote learning. Unsurprisingly, the bulk of respondents replied in the affirmative. The majority of respondents cited Canvas and a web-conferencing software, typically Zoom or Teams, as essential for their ability to provide remote learning, with many stating something similar to the fact that this type of transition would have been more unwieldy, if not impossible, even a decade ago. However, there were also multiple comments to the effect that the remote teaching modality was not a sufficient replacement for on-site learning. Respondent 21 stated this perception most succinctly,

*The tech was required for remote learning, not desired in any way.*

*I have avoided online ed for 20 years on purpose. I was forced to do this*

*during the pandemic and would never have done any of it under normal*

*circumstances. However, given the situation, I sacrificed many hours*

*upskilling in an attempt to accommodate the need to transition. So, in*

*answering the question, learning would have been impossible without*

*these tools, so "facilitated" it, but it is certainly not a substitute for in*

*person learning.* (Respondent 21).

Of the ten respondents who answered in the negative, they had similar reasons as Respondent 21, but took it to a negative, rather than an affirmative. Overall, the responses to these questions outlined the net positive that the technology afforded to the transition, but that there are still perceptions of limitations in the technology to convince many faculty members to move to an online format for their courses.

**Course Design**

Course design is an essential aspect of course delivery. As Scopio and Luyt, 2015, point out, the online format often requires a separate online pedagogy in order to attain the same learning outcomes as an on-site course. Thusly, courses designed specifically for on-site learning need to be adjusted to a remote format. Questions 23-30 addressed the aspects of course design that faculty respondents perceived the be the easiest and most difficult during the Spring and Fall 2020 semesters. Data collected around course design transitions did display some statistically significant differences between ASU and UCCS, so this data set was analyzed both collectively and by institution (*see Appendix D*).

Questions 23, 24, 27, and 28, asked faculty respondents to indicate which aspects of their courses were the easiest to transition and why. Questions 23 and 24 asked about the Spring 2020 semester and questions 27 and 28 asked about the Fall 2020 semester to see if there were differences based on lessons learned from the spring semester. Questions 25, 26, 29, and 30, asked faculty respondents to indicate which aspects of their courses were the most difficult to transition and why. Questions 25 and 26 asked about the Spring 2020 semester and questions 29 and 30 asked about the Fall 2020 semester. The split of the terms was used to try to identify any differences based on lessons learned from the spring semester. The questions were structured to allow respondents to select from a list of course design aspects and then an open-ended follow-up question allowing the respondents to explain why these aspects were the easiest.

For both semesters and across both institutions, assignment submission was by far the easiest aspect to transition, with around 69 percent indicating that for Spring 2020 and 61 percent for Fall 2020 (*see Table 2*). Quizzes/exams and lectures were the next two most common aspects that were easiest to transition, but both trailed assignment submission by a significant amount. There were two course design aspects that differed significantly between the two institutions, discussions and learning objectives. ASU faculty had a much higher percentage of ease with course discussion, but a much lower ease with transitioning learning objectives than the respondents from UCCS. This is an interesting result insofar as the former can be explained through the difference in experience with online education between the campuses, but the latter has a less clear cause.

Table 2

Easiest Course Design Aspects to Transition by Term and Institution

**Spring 2020**

| Campus | Component | Count | Total Responses | % |
|---|---|---|---|---|
| ASU | Assignment Submission | 61 | 83 | 73.5% |
| UCCS | Assignment Submission | 54 | 75 | 72.0% |
| ASU | Course Engagement | 11 | 83 | 13.3% |
| UCCS | Course Engagement | 12 | 75 | 16.0% |
| ASU | Discussions | 21 | 83 | 25.3% |
| UCCS | Discussions | 14 | 75 | 18.7% |
| ASU | Labs/Recitations | 2 | 83 | 2.4% |
| UCCS | Labs/Recitations | 5 | 75 | 6.7% |
| ASU | Learning Objectives | 25 | 83 | 30.1% |
| UCCS | Learning Objectives | 29 | 75 | 38.7% |
| ASU | Lectures | 33 | 83 | 39.8% |
| UCCS | Lectures | 33 | 75 | 44.0% |
| ASU | Other - Please List: | 13 | 83 | 49.4% |
| UCCS | Other - Please List: | 6 | 75 | 42.7% |
| ASU | Quizzes/Exams | 41 | 83 | 15.7% |
| UCCS | Quizzes/Exams | 32 | 75 | 8.0% |

**Fall 2020**

| Campus | Component | Count | Total Responses | % |
|---|---|---|---|---|
| ASU | Assignment Submission | 53 | 83 | 63.9% |
| UCCS | Assignment Submission | 49 | 75 | 65.3% |
| ASU | Course Engagement | 16 | 83 | 19.3% |
| UCCS | Course Engagement | 6 | 75 | 8.0% |
| ASU | Discussions | 29 | 83 | 34.9% |
| UCCS | Discussions | 11 | 75 | 14.7% |
| ASU | Labs/Recitations | 2 | 83 | 2.4% |
| UCCS | Labs/Recitations | 4 | 75 | 5.3% |
| ASU | Learning Objectives | 25 | 83 | 30.1% |
| UCCS | Learning Objectives | 32 | 75 | 42.7% |
| ASU | Lectures | 34 | 83 | 41.0% |
| UCCS | Lectures | 31 | 75 | 41.3% |
| ASU | Other - Please List: | 15 | 83 | 39.8% |

| UCCS | Other - Please List: | 11 | 75 | 42.7% |
|------|---------------------|----|----|-------|
| ASU | Quizzes/Exams | 33 | 83 | 18.1% |
| UCCS | Quizzes/Exams | 32 | 75 | 14.7% |

There were two common themes that emerged from the open-ended questions (Q24 and Q28) in terms of why these aspects were the easiest to transition. The first was that Canvas was already being used extensively for assignment submission and quizzes/exams prior to Spring 2020, which was demonstrated in the responses from question 12. The second theme was that the web conferencing software available at both institutions allowed for lectures to stay relatively similar to on-site courses. There were no responses that indicated why the difference between the institutions would have existed.

For both semesters and across both institutions, course engagement and class discussions were shown to be the most difficult aspects of course design of the transition with 48 percent of overall respondents indicating difficulty with course engagement in the Spring 2020 semester and 47 percent in the Fall 2020 semester. Class discussions also proved challenging with 31 percent of the overall respondents indicating difficulty in the Spring 2020 semester and 25 percent in the Fall 2020 semester. There were far greater gaps between the institutions when indicating difficult aspects of course design to transition. In terms of the two primary aspects identified, UCCS presented a ten percent higher indication of difficulty with course engagement in the Spring 2020 semester, a 17 percent higher indication of difficulty with course engagement in the Fall 2020 semester, a 13.5 percent higher indication of difficulty with course discussions in the Spring 2020 semester, and a 12 percent higher indication of difficulty with course discussions in the

Fall 2020 semester (*see Table 3*). This difference is likely attributable to the difference between the institutions in historical delivery of online programs. Additionally, it is important to note that, in general, the percentage of respondents identifying any of the aspects of course design decreased from the Spring 2020 semester to the Fall 2020 semester, except for course engagement at UCCS.

Table 3

Most Difficult Course Design Aspects to Transition by Term and Institution

**Spring 2020**

| Campus | Component | Count | Total Responses | % |
|---|---|---|---|---|
| ASU | Assignment Submission | 3 | 83 | 3.6% |
| UCCS | Assignment Submission | 3 | 75 | 4.0% |
| ASU | Course Engagement | 38 | 83 | 45.8% |
| UCCS | Course Engagement | 42 | 75 | 56.0% |
| ASU | Discussions | 22 | 83 | 26.5% |
| UCCS | Discussions | 30 | 75 | 40.0% |
| ASU | Labs/Recitations | 11 | 83 | 13.3% |
| UCCS | Labs/Recitations | 16 | 75 | 21.3% |
| ASU | Learning Objectives | 5 | 83 | 6.0% |
| UCCS | Learning Objectives | 4 | 75 | 5.3% |
| ASU | Lectures | 13 | 83 | 15.7% |
| UCCS | Lectures | 20 | 75 | 26.7% |
| ASU | Other - Please List: | 22 | 83 | 26.5% |
| UCCS | Other - Please List: | 15 | 75 | 20.0% |
| ASU | Quizzes/Exams | 6 | 83 | 7.2% |
| UCCS | Quizzes/Exams | 11 | 75 | 14.7% |

**Fall 2020**

| Campus | Component | Count | Total Responses | % |
|---|---|---|---|---|
| ASU | Assignment Submission | 2 | 83 | 2.4% |
| UCCS | Assignment Submission | 1 | 75 | 1.3% |
| ASU | Course Engagement | 34 | 83 | 41.0% |

| | | | | | |
|---|---|---|---|---|---|
| UCCS | Course Engagement | 44 | | 75 | 58.7% |
| ASU | Discussions | 18 | | 83 | 21.7% |
| UCCS | Discussions | 25 | | 75 | 33.3% |
| ASU | Labs/Recitations | 8 | | 83 | 9.6% |
| UCCS | Labs/Recitations | 9 | | 75 | 12.0% |
| ASU | Learning Objectives | 3 | | 83 | 3.6% |
| UCCS | Learning Objectives | 2 | | 75 | 2.7% |
| ASU | Lectures | 11 | | 83 | 13.3% |
| UCCS | Lectures | 18 | | 75 | 24.0% |
| ASU | Other - Please List: | 23 | | 83 | 27.7% |
| UCCS | Other - Please List: | 14 | | 75 | 18.7% |
| ASU | Quizzes/Exams | 8 | | 83 | 9.6% |
| UCCS | Quizzes/Exams | 11 | | 75 | 14.7% |

The single most prominent theme that arose from the open-ended questions (Q26 and Q30) was that of not being able to read students' non-verbal communication or emotional state in an online format. The in-person contact, especially for course engagement and class discussions, was cited in a significant number of responses for both semesters, across both fully online and hybrid on-site/online courses, and across both institutions.

**Faculty Perceptions of Success**

Faculty perceptions around the success and failures of their efforts to transition courses to remote learning were important to gauge in this study as those perceptions are at the core of the research questions. Questions 34-43 asked respondents to rate their perceived success in transitioning their courses to remote learning in both the Spring and Fall 2020 semesters. The Spring 2020 semester presented an unprecedented turn around mid-semester from on-site to remote learning whereas the Fall 2020 semester had a longer, although still very short, lead-in to either fully remote, or a hybrid of on-site and remote learning, so the expectation was that answers would differ between the terms. All

rating were on a scale of one to five, with one being not at all successful and five being completely successful.

Questions 34 and 39 asked respondents to rate their success in transitioning one of their courses to remote learning in the Spring 2020 and Fall 2020 semesters. Questions 37 and 42 asked respondents to rate the academic success of students in one of their courses in the Spring 2020 and Fall 2020 semesters. Questions 36, 38, 41, and 43, asked respondents to describe the reasoning behind their ratings. Questions 35 and 40 asked about the modality of the remote learning courses to investigate whether that modality had any impact on ratings. There was no statistically significant difference between the two institutions on responses, so all data in this set of questions was treated as one data set (*see Appendix E)*.

Overall, the ratings for both questions and across both semesters demonstrated that the perceived success rate and the success rate of the students fell into an average of a rating of four, or mostly successful. Ratings did clearly improve from the Spring 2020 semester to the Fall 2020 semester, but more so in how respondents rated their course transition than in how well students performed. There was a much more significant increase in faculty perception of their ability to successfully transition their courses with additional time to do so (*see Table 4*).

Table 4

Faculty Ratings of Course Transition and Student Success

**Spring 2020**

| Course Transition | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 2 | 1.6% |
| 2 | 8 | 6.2% |
| 3 | 40 | 31.0% |
| 4 | 55 | 42.6% |
| 5 (Completely Successful) | 24 | 18.6% |

| Student Success | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 3 | 2.4% |
| 2 | 7 | 5.5% |
| 3 | 43 | 33.9% |
| 4 | 50 | 39.4% |
| 5 (Completely Successful) | 24 | 18.9% |

**Fall 2020**

| Course Transition | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 1 | 0.8% |
| 2 | 2 | 1.6% |
| 3 | 23 | 18.5% |
| 4 | 62 | 50.0% |
| 5 (Completely Successful) | 36 | 29.0% |

| Student Success | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 3 | 2.4% |
| 2 | 3 | 2.4% |
| 3 | 33 | 26.8% |
| 4 | 51 | 41.5% |
| 5 (Completely Successful) | 33 | 26.8% |

More interesting, however, is how these ratings break out between course delivery modality, that is synchronously, asynchronously, or a combination of both. Overall, faculty respondents who taught asynchronously had a much lower perceived success rate than those who taught synchronously or in combination (*see Table 5*). This finding seems to indicate that a preference for replication in the online teaching space may exist since synchronous is more akin to on-site than asynchronous.

Table 5

Faculty Ratings of Course Transition and Student Success by Modality

**Course Transition**

| Spring 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 0 | 2 | 19 | 26 | 5 |
| Asynchronously | 0 | 4 | 9 | 14 | 8 |
| Combination | 2 | 2 | 10 | 15 | 11 |

| Fall 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 0 | 8 | 31 | 10 |
| Asynchronously | 0 | 1 | 6 | 10 | 12 |
| Combination | 0 | 1 | 6 | 21 | 14 |

**Student Success**

| Spring 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 3 | 12 | 24 | 10 |
| Asynchronously | 1 | 0 | 7 | 11 | 10 |
| Combination | 1 | 0 | 11 | 16 | 13 |

| Fall 20 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 2 | 21 | 21 | 5 |
| Asynchronously | 2 | 3 | 12 | 12 | 6 |
| Combination | 0 | 2 | 8 | 17 | 13 |

**Challenges and Surprises**

The final two questions of the survey were focused on the generality of
converting an on-site course to an online course, and an investigation into the aspects of
the transitions that surprised the faculty respondents. Question 44 asked respondents to
briefly outline how creating an online course differed from creating an on-site course for
the Spring and Fall 2020 semesters. Question 45 asked respondents to detail up to three
surprises they encountered when transitioning their courses during the Spring and Fall
2020 semesters. Both questions were open-ended and were thusly not parsed by
institution.

Of the 166 respondents to complete the survey, 106 provided and answer to question 44, and 102 provided responses to question 45, with a total of 282 responses for question 45 (up to three for each respondent). Each question was originally coded individually, but after the initial coding and analysis, it became clear that both questions contained very similar themes. So, the questions were re-coded based on a standard set of themes that emerged from both questions. The coding definitions for both questions are listed in Figure 2.

| Code | Code Definition |
|---|---|
| *Adaptability, Flexibility, Resilience* | Responses that were coded into this category spoke to the adaptability of students and faculty, the flexibility of students and faculty when adapting, and the resilience of students and faculty to work through, the transitions in Spring and Fall 2020. |
| *Course Facilitation* | Responses that were coded into this category referred to challenges surround facilitating course with the given technology in the Spring and Fall 2020 semesters. |
| *Course Materials* | Responses that were coded into this category referred to the challenges around converting course materials into Canvas, or other technology. |
| *Digital Divide* | Responses that were coded into this category referred to the differences in access and support with technology between students. |
| *Organization, Preparation, and Workload* | Responses that were coded into this category referred to the additional work to prepare, organize, create, and maintain a course online versus a course offered on-site. |
| *Student and Faculty Expectations* | Responses that were coded into this category referred to the expectations that faculty had regarding students that were incorrect, or wholly surprising. |
| *Student Engagement* | Responses that were coded into this category referred to the challenges with engaging students in courses. |
| *Teaching Pedagogy* | Responses that were coded into this category referred to either challenges with translating discipline-specific pedagogy to the online space, or with the challenges in developing an online teaching pedagogy. |
| *Technology Concerns* | Responses that were coded into this category referred to the challenges around utilizing the available technology to transition courses. |

*Figure 2. Code names and definitions for questions 44 and 45.*

The primary differences in themes were that of Digital Divide not being present in Question 44 responses and Course Facilitation having virtually no presence in Question 45. Appendix F provides the full list of responses to questions 44 and 45.

Question 44 asked respondents to indicate what the differences were between developing an on-site course and a remote learning course. Developing student engagement in remote learning environments was the most common theme among respondents. Course materials, organization, preparation and workload, along with technology concerns were also common themes among respondents with many citing the extra work required to develop a successful remote learning course due to those three factors. Table 6 shows the response rates for each code.

Table 6

Question 44 coded response rates

| Code | Count |
|------|-------|
| Adaptability, Flexibility, Resilience | 7 |
| Course Facilitation | 13 |
| Course Materials | 19 |
| Digital Divide | 0 |
| Organization, Preparation and Workload | 19 |
| Student and Faculty Expectations | 4 |
| Student Engagement | 28 |
| Teaching Pedagogy | 8 |
| Technology Concerns | 18 |

Question 45 asked respondents to list up to three surprises that occurred during the Spring and Fall 2020 semesters. Student engagement was the predominant theme among respondents with more than half of the respondents mentioning it. The responses were evenly distributed between positive and negative comments regarding student

engagement and displayed a wide array attitudes towards the act of engaging students in

remote learning courses. Student engagement was closely followed by technology

concerns and predominantly dealt with how well the technology helped facilitate courses.

One additional factor that was notable, although not particularly prominent in the

responses was the acknowledgement by eight respondents that the digital divide, that is

the uneven access to technology largely based on socioeconomic factors, was evident in

their courses. These comments are definitely a consideration for future research. Table 7

shows the response rates for each code.

Table 7

Question 45 coded response rates

| Code | Count |
|---|---|
| Adaptability, Flexibility, Resilience | 34 |
| Course Facilitation | 1 |
| Course Materials | 11 |
| Digital Divide | 8 |
| Organization, Preparation and Workload | 24 |
| Student and Faculty Expectations | 30 |
| Student Engagement | 66 |
| Teaching Pedagogy | 26 |
| Technology Concerns | 49 |

CHAPTER 5

ANALYSIS, RECOMMENDATIONS, CONCLUSIONS

The purpose of this study was to determine if learner-centered teaching was a key component of the quick transition of on-site to remote teaching in the Spring and Fall 2020 semesters and how this information may provide insight for future online course development. This chapter includes a discussion of the key findings of the study as related to online course facilitation and the role of learner-centered theory in that process. It also includes a discussion about the limitations of the study, potential future research into online education within the framework of short transitions, and it concludes with a brief summary.

This chapter comprises a discussion of the study results and future potential research to assist in answering the two primary research questions:

**RQ1:** Was learner-centered teaching a primary tactic of course facilitation methods for a short duration transition from on-site to online learning in a university setting as experienced during the Covid-19 global pandemic at the two public institutions of higher education studied?

**RQ2:** What was the scope of approaches to course facilitation during this short-term transition that can be viewed as best practices?

**Interpretation of Key Findings – Learner-Centered Teaching**

Course engagement was a primary focus throughout nearly all of the survey responses pointing out the difficulty that many respondents had in effectively transitioning that aspect to remote learning. Course and student engagement was clearly identified as the primary concern for respondents in identifying the most difficult aspects

to transition, throughout the open-ended question regarding the differences between on-site and online course, and predominantly in the question regarding the surprises of the transition. Nearly half of the respondents identified course engagement as an essential aspect of the transition throughout these questions (*see Appendices D and F*).

This particular finding is supported by the literature in both of the areas of online education and learner-centered theory. Brazleton (2020) argues that student engagement is the most important factor in student success for online education and should be very intentionally introduced into the course design. Additionally, course engagement is most successful when instructors are partnering with their students through the learning process. The survey data supports, at a minimum, the recognition by the majority of faculty respondents that course engagement is a key component to success in the remote learning space.

Course and student engagement was clearly identified as the primary concern for respondents in identifying the most difficult aspects to transition, throughout the open-ended question regarding the differences between on-site and online course, and predominantly in the question regarding the surprises of the transition. Nearly half of the respondents identified course engagement as an essential aspect of the transition throughout these questions.

The focus on course engagement seems to support the idea that learner-centered teaching was a consideration of the transition. One example of this focus came from one respondent who said,

> *I was surprised still to see how well rapport could be established*
> *with students even in a fully remote (online) course. Communicating that*

*you, the faculty member, care about their learning and well-being goes a*

*long way! (Respondent 152)*

The acknowledgement of how a simple partnership can be formed simply by engaging with students on the level of clearly demonstrating the instructor's dedication to their learning and well-being can establish engagement in the students. Creating this type of partnership is a key feature for engaging students in a course. This finding supports the current literature regarding the importance of presence and partnership for successful teaching in the online education space (Martin, Wang & Sadaf, 2020, Martin & Bollinger, 2018, Richardson, et. al., 2015).

### Interpretation of Key Findings – Best Practices

Faculty self-awareness, or lack thereof, with regard to how they could not simply port their on-site course structure to a remote learning scenario also became evident throughout the survey responses. Question 44 which asked respondents to indicate the key differences between creating an on-site and online course provided an abundance of insight to the unexpected challenges of transitioning and demonstrated how many faculty members had to re-think their strategies part-way through the process. One respondent summed up what many other respondents expressed,

*The greatest difference was that I had to learn to be more*

*structured in my presenting of information. The problem was me - I relied*

*on student feedback and nonverbals - to see if they were getting the*

*information. Online I didn't get that, so I had to change my approach. It*

*was actually very challenging.* (Respondent 108)

The lack of in-person interaction clearly disrupted many of the respondents throughout the Spring and Fall 2020 semesters and learning how to manage that disconcerting alteration was an essential experience from the unprecedented transition. This finding supports the current research into online course facilitation especially with regard to the online teaching pedagogy which exists outside of the discipline-specific pedagogy (Martin and Bollinger, 2018; Martin, Wang & Sadaf, 2020, McGee, Windes, and Torres, 2017, Scopio & Luyt, 2015).

Technology issues were also a prevalent concern of respondents, but with a clear through-line that those concerns were more a matter of training and resource support rather than an inherent pedagogical hurdle. This finding points to a need at institutions of higher education to not only have a robust support system in place to assist faculty in learning the necessary tools for online education, but also to actively engage them in such training. Additionally, offering services to assist with the modality specific pedagogy for online teaching could make the technology less of a hurdle.

Responses also demonstrated both the efficacy of online teaching tools, but also their inherent limitations. There was an interesting correlation demonstrated in the survey data between the different aspects of course facilitation outlined for both on-site and online courses in the literature. The technical aspect of course facilitation, although not entirely the purview of online education, is a primary component for course success. The survey data supported the importance of this aspect of course facilitation in how many respondents indicated that learning the tools was a huge amount of the time they had to dedicate to successfully transitioning their courses. As Respondent 152 so aptly put it

regarding the effort to move on-site courses to remote learning, that it was, "So. Much. More. Work." This was a sentiment echoed by many of the respondents.

The finding points to a need in higher education to not only better promote online education, but to better educate faculty on the realities of teaching in an online format. The expectations of respondents, as indicated in the survey data, largely indicated that they expected to be able to simply port their on-site courses to an online, or hybrid, format with little difficulty, or with simply technology issues. The reality for many respondents, however, was that the technology was only one small part of the transition experience and the course design and ability to engage students was the real challenge. Many respondents indicated that they could simply adjust their courses on-site by their interaction with the students, but that lack of in-person interaction made them have to rethink how they were teaching.

## Limitations of the Study

The study had several notable limitations that surfaced largely as the data was being analyzed. Many additional questions arose from the initial data analysis that were not able to be addressed with the data itself, but those questions could definitely provide additional insight to the research questions.

First, the study did not address the student experience. The student experience was not the intention of the study, but it could have provided an additional perspective to validate faculty perceptions on successes and failures. Additionally, the student experience could have brought to light other aspects of course engagement that faculty themselves were not aware of and how that affected the experience.

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Second, although touched on by some respondents, the study did not look into any issues of the digital divide and its effect on both faculty and students. The digital divide is a real concern in an increasingly technology-oriented society. Although online education, on one hand, offers greater access for students in terms of availability of education programs, it also can be detrimental for those who lack basic technology access.

Third, although the demographics were largely in line with reported faculty demographics, there was not sufficient information from either institution to determine if age group, or years teaching in higher education, demographics aligned as well. Since technology is often aligned with age, that bit of information would have helped identify if age group was a significant factor, or not.

Fourth, academic area was not factored into the data collected. Academic area could have a significant impact on the analysis since there are clearly areas of teaching that do not currently meld well with online education. For example, performing arts and lab sciences are difficult to transition owing to the need for in-person interaction for the former, and specific lab facilities for the latter. There were some indications from certain respondents that could lead to a much different conclusion given a focus on those areas.

Lastly, the qualitative data from the survey did not delve deep enough into motivations of respondents. A small set of follow-up interviews allowing more depth qualitative data would likely bring greater insight into best practices.

**Potential Future Research**

Although this study was a solid first step into investigating quick transitions from on-site to remote learning, the limitations of the study beg for further investigation. Research into the student experience, especially in conjunction with the faculty

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experience could provide a much deeper insight into the longer-term ramifications of these types of transitions. The digital divide is a growing concern as higher education is increasingly moving more content online. A deeper dive into the experiences with the pandemic and investigating how the digital divide affected traditionally marginalized groups of students could provide interesting insight in ways to make online education more accessible. Investigating more specified academic areas to compare experiences with moving online could provide valuable insight into how to transition more challenging academic areas to the online education space.

## Conclusion

Was learner-centered teaching a primary tactic for transitioning courses during the Covid-19 Pandemic? The data seems to support that fact, although probably not with the intentionality that would normally be implied. However, the effort that faculty members put into the transition, and the amount of self-awareness that many of them had regarding their role in ensuring that students were successful, speaks to at least some level of inherent understanding around focusing on the students. Did the study provide best practices for a short transition? It did not necessarily provide any new, or novel, practices, but it did support the current literature around the importance of a learner-centered focus to course facilitation and student engagement in an online teaching format.

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APPENDIX A

SURVEY

# Course Facilitation During a Time of Global Pandemic

## Survey Flow

**Standard: Consent (2 Questions)**
**Block: Demographic Information (7 Questions)**
**Standard: Questions (36 Questions)**

---

*Start of Block: Consent*

Q1 **Description of the Study and Your Part in It** Chris DuVal is a graduate student at Arizona State University under the direction of Dr. La Verne Abe Harris. The purpose of the study is an attempt to determine if learner-centered teaching is a primary tactic of course facilitation methods for a short duration transition from on-site to online learning in a university setting as experienced during the Covid-19 global pandemic. Furthermore, the study attempts to gauge the scope of approaches to course facilitation during this short-term transition that can be viewed as best practices.     You will be asked to complete the survey below. It will take you approximately 20 minutes to complete the survey.     **Choosing to be in the Study** You do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time. Participation is voluntary. Refusal to participate or withdraw at any time will not involve any penalty or loss of benefits, to which the participant is otherwise entitled.     **Risk or Discomforts** There are minimal risks to participating in this research, however these do not pose any more risk than those a person would experience in everyday life.     **Possible Benefits** While participation may not specifically benefit you, it may improve our general understanding of faculty perceptions of online course facilitation.     **Protection of Privacy and Confidentiality** All information you provide is completely confidential. All responses will be downloaded from Qualtrics and saved on a password-protected computer located in Colorado Springs, CO. Information and the data provided will remain confidential and will be stored indefinitely on secure, password-protected computers to which only the authorized researchers have access.     **Contact Information** This project has been reviewed by and received ethics clearance through the Arizona State University Institutional Review Board. If you have any comments or concerns resulting from your participation in this study, If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.     If you have any questions or concerns about this study or if any problems arise, please

contact the Principal Investigator at:     Dr. La Verne Abe Harris, Ph.D.  College of Integrative Sciences and Arts  Arizona State University  lvharris@asu.edu

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Q2 Informed Consent Agreement By beginning the survey, you acknowledge that you are at least 18 years old, have read this consent form, have understood the above information, and agree to voluntarily participate in this research. If you would like a copy of this form for your reference, you may print this out.

○ Yes  (1)

○ No  (2)

*Skip To: End of Survey If Q2 = No*

**End of Block: Consent**

**Start of Block: Demographic Information**

Q3 Where do you teach?

○ Arizona State University  (1)

○ University of Colorado Colorado Springs  (2)

---

Q4 What is your gender identity?

○ Male  (1)

○ Female  (2)

○ Non-binary / third gender  (3)

○ Prefer not to say  (4)

---

Q5 What is your ethnic identity?

    ○ American Indian/Alaska Native  (1)

    ○ Asian  (2)

    ○ Black/African American  (3)

    ○ Hispanic/Latino/a  (4)

    ○ Mixed ethnicity  (5)

    ○ Native Hawaiian/Pacific Islander  (6)

    ○ White  (7)

    ○ Other  (8) _____

    ○ Prefer not to say  (9)

---

Q6 What is your age group?

    ○ Under 30  (1)

    ○ 30-39  (2)

    ○ 40-49  (3)

    ○ 50-59  (4)

    ○ 60-69  (5)

    ○ 70-79  (6)

    ○ 80+  (7)

    ○ Prefer not to say  (8)

Q7 What type of faculty are you?

○ Adjunct  (1)

○ Clinical  (2)

○ Lecturer  (3)

○ Instructor  (4)

○ Research Faculty  (5)

○ Tenure Track  (6)

○ Other  (7) _____

Q8 What is the highest degree you have completed?

○ Bachelor's Degree  (1)

○ Master's Degree (non-terminal degree)  (2)

○ Master's Degree (terminal degree)  (3)

○ Doctorate Degree  (4)

Q9 How many years have you taught in higher education?

_____

Q10 Prior to the **Spring 2020** semester did you teach any courses either fully online or in a hybrid, on-site and online, format?

○ Yes  (1)

○ No  (2)

Display This Question:
    If Q10 = Yes

Q11 In what format did you teach these courses **prior to** Spring 2020?

○ Synchronously (real-time)  (1)

○ Asynchronously (anytime)  (2)

○ Combination of both  (3)

Q12 Canvas is the primary learning management system supported on campus. **Prior to** Spring 2020 did you use Canvas for your on-site courses?

○ Yes  (1)

○ No  (2)

Q13 Which features of Canvas did you use regularly **prior to** Spring 2020. Select all that apply:

☐ Assignment Submission  (1)

☐ Course Announcements  (2)

☐ Discussion Boards  (3)

☐ Embedded Videos  (4)

☐ Grades  (5)

☐ Groups  (6)

☐ Module Set-Up  (7)

☐ Quizzes/Exams  (8)

☐ Syllabus  (9)

☐ Other  (10) _____

---

Q14 Why did you not use Canvas **prior to** Spring 2020? Select all that apply:

☐ It wasn't useful  (1)

☐ It was too difficult to learn  (2)

☐ Never considered it  (3)

☐ There weren't enough resources to help  (4)

☐ Other  (5) _____

------------------------------------------------------------

Page Break

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Q15 Did you use Canvas when transitioning your on-site course(s) to online learning during the **Spring 2020** semester?

○ Yes  (1)

○ No  (2)

*Skip To: Q16 If Q15 = Yes*
*Skip To: Q17 If Q15 = No*

------------------------------------------------------------

Q16 Which features of Canvas did you use regularly during **Spring 2020**? Select all that apply:

☐ Assignment Submission  (1)

☐ Course Announcements  (2)

☐ Discussion Boards  (3)

☐ Embedded Videos  (4)

☐ Grades  (5)

☐ Groups  (6)

☐ Module Set-Up  (7)

☐ Quizzes/Exams  (8)

☐ Syllabus  (9)

☐ Other  (10) _____

---

*Display This Question:*

  *If Q15 = No*

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Q17 Why did you not use Canvas during **Spring 2020**? Select all that apply:

☐ It wasn't useful  (1)

☐ It was too difficult to learn  (2)

☐ Never considered it  (3)

☐ There weren't enough resources to help  (4)

☐ Other  (5) _____

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Page Break ─────────────────────────────────────────

Q18 Did you use Canvas when transitioning your on-site course(s) to online learning for the **Fall 2020** semester?

○ Yes  (1)

○ No  (2)

*Skip To: Q19 If Q18 = Yes*
*Skip To: Q20 If Q18 = No*

Q19 Which features of Canvas did you use regularly during **Fall 2020**. Select all that apply:

☐ Assignment Submission  (1)

☐ Course Announcements  (2)

☐ Discussion Boards  (3)

☐ Embedded Videos  (4)

☐ Grades  (5)

☐ Groups  (6)

☐ Module Set-Up  (7)

☐ Quizzes/Exams  (8)

☐ Syllabus  (9)

☐ Other  (10) _____

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*Display This Question:*

> *If Q18 = No*

Q20 Why did you not use Canvas for **Fall 2020**? Select all that apply:

☐ It wasn't useful  (1)

☐ It was too difficult to learn  (2)

☐ Never considered it  (3)

☐ There weren't enough resources to help  (4)

☐ Other  (5) _____

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Page Break

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Q21 What other technologies did you use regularly for remote learning during **Spring 2020** and **Fall 2020**? Select all that apply:

☐ Video Conferencing (for example, Microsoft Teams, Zoom, Webex)  (1)

☐ Cloud Sharing Applications (for example, Google Docs)  (2)

☐ Video Streaming (for example, YouTube, Vimeo)  (3)

☐ Other - Please List:  (4) _____

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Q22 What resources did you use to assist in transitioning courses from on-site to online during the **Spring** and **Fall** 2020 semesters?

☐ On-campus resource center or department  (1)

☐ Other faculty  (2)

☐ Software specific websites  (3)

☐ YouTube, or other streaming service  (4)

☐ Other - Please List:  (5) _____

---

Page Break

Q23 What aspects of your course design were the easiest to transition to online learning during the **Spring 2020** semester? Select all that apply:

☐ Assignment Submission  (1)

☐ Course Engagement  (2)

☐ Discussions  (3)

☐ Labs/Recitations  (4)

☐ Learning Objectives  (5)

☐ Lectures  (6)

☐ Quizzes/Exams  (7)

☐ Other - Please List:  (8) _____

Q24 Why were these aspects the easiest to transition to online learning during the **Spring 2020** semester?

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_____

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Page Break

Q25 What aspects of your course design were the most difficult to transition to online learning during the **Spring 2020** semester? Select all that apply:

☐ Assignment Submission  (1)

☐ Course Engagement  (2)

☐ Discussions  (3)

☐ Labs/Recitations  (4)

☐ Learning Objectives  (5)

☐ Lectures  (6)

☐ Quizzes/Exams  (7)

☐ Other - Please List:  (8) _____

Q26 Why were these aspects the most difficult to transition to online learning during the **Spring 2020** semester?

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Page Break

Q27 What aspects of your course design were the easiest to transition to online learning during the **Fall 2020** semester? Select all that apply:

☐ Assignment Submission  (1)

☐ Course Engagement  (2)

☐ Discussions  (3)

☐ Labs/Recitations  (4)

☐ Learning Objectives  (5)

☐ Lectures  (6)

☐ Quizzes/Exams  (7)

☐ Other - Please List:  (8) _____

Q28 Why were these aspects the easiest to transition to online learning during the **Fall 2020** semester?

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Page Break

Q29 What aspects of your course design were the most difficult to transition to online learning during the **Fall 2020** semester? Select all that apply:

☐ Assignment Submission  (1)

☐ Course Engagement  (2)

☐ Discussions  (3)

☐ Labs/Recitations  (4)

☐ Learning Objectives  (5)

☐ Lectures  (6)

☐ Quizzes/Exams  (7)

☐ Other - Please List:  (8) _____

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Q30 Why were these aspects the most difficult to transition to online learning during the **Fall 2020** semester?

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Page Break

Q31 Did the available technology help facilitate the transition to online learning?

○ Yes (1)

○ No (2)

Display This Question:

If Q31 = Yes

Q32 How did the available technology help facilitate the transition to online learning?

_____

_____

_____

_____

_____

Display This Question:

If Q31 = No

Q33 Why did the available technology not help facilitate the transition to online learning?

_____

_____

_____

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Page Break

Q34 Thinking about one of the courses you taught in the **Spring 2020** semester, to what level do you feel that you successfully transitioned your course to online learning? Please indicate a score of 1-5 with 1 being not at all successful and a 5 being completely successful.

○ 1 (Not Successful) (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 (Completely Successful) (5)

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Q35 How was the course taught?

○ Synchronously (1)

○ Asynchronously (2)

○ Combination of both (3)

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Q36 Please briefly describe the primary factors that contributed to your score.

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Page Break

Q37 Thinking about one of the courses you taught in the **Spring 2020** semester, to what level do you feel students were successfully able to learn the content of the course as compared to on-site learning? Please indicate a score of 1-5 with 1 being not at all successful and a 5 being completely successful.

○ 1 (Not Successful) (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 (Completely Successful) (5)

---

Q38 Please briefly describe the primary factors that contributed to your score.

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Page Break

Q39 Thinking about one of the courses you taught in the **Fall 2020** semester, to what level do you feel that you successfully transitioned your course to online learning? Please indicate a score of 1-5 with 1 being not at all successful and a 5 being completely successful.

○ 1 (Not Successful)  (1)

○ 2  (2)

○ 3  (3)

○ 4  (4)

○ 5 (Completely Successful)  (5)

Q40 How was the course taught?

○ Synchronously  (1)

○ Asynchronously  (2)

○ Combination of both  (3)

Q41 Please briefly describe the primary factors that contributed to your score.

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Q42 Thinking about one of the courses you taught in the **Fall 2020** semester, to what level do you feel students were successfully able to learn the content of the course as compared to on-site learning? Please indicate a score of 1-5 with 1 being not at all successful and a 5 being completely successful.

○ 1 (Not Successful) (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 (Completely Successful) (5)

Q43 Please briefly describe the primary factors that contributed to your score.

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Page Break

Q44 Please briefly describe how creating an online course was different than creating an on-site course for the Spring and Fall 2020 semesters?

_____

_____

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_____

Q45 What surprised you the most about your transition of courses, positive or negative, during the Spring 2020 and Fall 2020 semesters? Please list up to three items below.

☐ Surprise 1: (1) _____

☐ Surprise 2: (2) _____

☐ Surprise 3: (3) _____

**End of Block: Questions**

APPENDIX B

SURVEY DEMOGRAPHICS

**Survey Demographics**

The survey instrument that was used to collect the data for this study was sent to approximately 2500 potential respondents across both Arizona State University and the University of Colorado Colorado Springs. The number of respondents who engaged with the survey was 166, with seven respondents opting out at the informed consent question. The total number of respondents that provided data for the survey was thusly 159. Demographic responses are listed in the table below.

| Demographic | ASU | UCCS |
|---|---|---|
| *Gender Identity* | | |
| Female | 46 | 49 |
| Male | 36 | 23 |
| Non-Binary/Third Gender | 0 | 0 |
| Prefer Not to Say | 1 | 2 |
| *Ethnic Identity* | | |
| American Indian/Alaska Native | 1 | 0 |
| Asian | 9 | 4 |
| Black/African American | 0 | 2 |
| Hispanic/Latino/a | 3 | 0 |
| Mixed ethnicity | 2 | 1 |
| Native Hawaiian/Pacific Islander | 0 | 0 |
| White | 65 | 60 |
| Other | 1 | 3 |
| Prefer not to say | 2 | 4 |
| *Age Group* | | |
| Under 30 | 2 | 1 |
| 30-39 | 17 | 17 |
| 40-49 | 24 | 19 |
| 50-59 | 21 | 18 |
| 60-69 | 16 | 17 |
| 70-79 | 2 | 2 |
| Prefer not to say | 1 | 0 |
| *Faculty Type* | | |
| Adjunct | 7 | 6 |
| Clinical | 15 | 1 |
| Lecturer | 7 | 12 |
| Instructor | 13 | 23 |
| Research Faculty | 4 | 0 |
| Tenured/Tenure Track | 32 | 29 |

| | | |
|---:|:---:|:---:|
| Other | 5 | 3 |
| *Highest Degree Attained* | | |
| Bachelor's Degree | 1 | 3 |
| Master's Degree (non-terminal degree) | 12 | 14 |
| Master's Degree (terminal degree) | 12 | 9 |
| Doctorate Degree | 58 | 48 |
| *Years Teaching in Higher Education* | | |
| >10 | 33 | 22 |
| 10-19 | 20 | 22 |
| 20-29 | 19 | 20 |
| 30-39 | 6 | 9 |
| 40-49 | 5 | 1 |

**Common Data Set Comparison**

The Common Data Set (CDS) is a collaborative effort among institutions of higher
education, and publishers of comparative higher education data, to provide a standardized
set of relevant cohort data for students across higher education. The CDS provides broad-
ranged data regarding students at each institution for each academic year. The CDS also
provides basic data regarding faculty demographics which is the basis of the table below.

| Criteria | | ASU | UCCS |
|:---|---:|:---:|:---:|
| Total number of instructional faculty | | 2897 | 789 |
| Total number who are members of minority groups | | 711 | 129 |
| | Campus % | 24.5% | 16.3% |
| | Survey % | 21.7% | 18.9% |
| | Difference | -2.8% | 2.6% |
| Total number who are women | | 1228 | 431 |
| | Campus % | 42.4% | 54.6% |
| | Survey % | 55.4% | 66.2% |
| | Difference | 13.0% | 11.6% |
| Total number who are men | | 1669 | 357 |
| | Campus % | 57.6% | 45.2% |
| | Survey % | 43.4% | 31.1% |
| | Difference | -14.2% | -14.1% |
| Total number with doctorate, or other terminal degree | | 2291 | 387 |
| | Campus % | 79.1% | 49.0% |
| | Survey % | 84.4% | 77.1% |
| | Difference | 5.3% | 28.1% |
| Total number whose highest degree is a master's but not a terminal master's | | 414 | 314 |

| | | | |
|---|---|---|---|
| | Campus % | 14.3% | 39.8% |
| | Survey % | 14.5% | 18.9% |
| | Difference | 0.2% | -20.9% |
| Total number whose highest degree is a bachelor's | | 109 | 45 |
| | Campus % | 3.8% | 5.7% |
| | Survey % | 1.2% | 4.1% |
| | Difference | -2.6% | -1.6% |
| Total number whose highest degree is unknown or other | | 83 | 43 |
| | Campus % | 2.9% | 5.4% |
| | Survey % | 1.2% | 1.3% |
| | Difference | -1.7% | -4.1% |

ASU Common Data Set Data is available at: https://uoia.asu.edu/content/common-data-set

UCCS Common Data Set Data is available at:

https://ir.uccs.edu/institutionaldata/common-data-set

APPENDIX C

TECHNOLOGY USAGE

**Pre-2020 Experience with Online or Hybrid Teaching**

Questions 10 and 11 asked respondents to indicate if they had taught an online or hybrid on-site/online course prior to Spring 2020 and in which format they taught the course. Responses are separated by institution, Arizona State University (ASU) and the University of Colorado Colorado Springs (UCCS).

**Pre-2020 Online or Hybrid Teaching**

| Institution | Yes | No |
|---|---|---|
| ASU | 56 | 27 |
| UCCS | 54 | 20 |

**Format for Pre-2020 Teaching**

| Institution | Synchronously | Asynchronously | Combination |
|---|---|---|---|
| ASU | 8 | 30 | 18 |
| UCCS | 6 | 32 | 16 |

**Canvas Usage by Institution Pre-2020 through Fall 2020**

Questions 12, 15, and 18, asked respondents to indicate if they used the Canvas learning management system for facilitating their courses prior to 2020, during the Spring 2020 semester, and during the Fall 2020 semester. Usage by institution for each timeframe is reported along with the percentage of those respondents who used Canvas.

| Institution | Total | Yes | No | %Yes |
|---|---|---|---|---|
| *Pre-2020* | | | | |
| ASU | 82 | 71 | 11 | 86.6% |
| UCCS | 74 | 70 | 4 | 94.6% |
| *Spring 2020* | | | | |
| ASU | 82 | 71 | 11 | 86.6% |
| UCCS | 74 | 65 | 9 | 87.8% |
| *Fall 2020* | | | | |
| ASU | 81 | 68 | 13 | 84.0% |
| UCCS | 73 | 68 | 5 | 93.2% |

**Comparison of Pre-2020 Canvas Usage and Subsequent Usage in Spring and Fall 2020 by Institution**

This is comparative data for pre-2020 Canvas usage and usage in subsequent semesters.

**ASU**

| Used | Pre-2020 | Spring/Fall 2020 | Spring 2020 Only | Fall 2020 Only | Neither Term |
|---|---|---|---|---|---|
| Yes | 70 | 58 | 5 | 3 | 4 |
| No | 11 | 5 | 2 | 2 | 2 |
| *Total* | 81 | 63 | 7 | 5 | 6 |

**UCCS**

| Used | Pre-2020 | Spring/Fall 2020 | Spring 2020 Only | Fall 2020 Only | Neither Term |
|---|---|---|---|---|---|
| Yes | 70 | 60 | 4 | 6 | 0 |
| No | 3 | 1 | 0 | 1 | 1 |
| *Total* | 73 | 61 | 4 | 7 | 1 |

## Canvas Component Usage by Term and Institution

Questions 13, 16, and 19, asked respondents who indicated that they had used Canvas to note which components of Canvas they used for facilitating their courses prior to 2020, during the Spring 2020 semester, and during the Fall 2020 semester. Component usage by institution for each timeframe is reported.

**Pre-2020**

| Component | ASU | UCCS |
|---|---|---|
| Assignment Submission | 62 | 61 |
| Course Announcements | 68 | 70 |
| Discussion Boards | 48 | 41 |
| Embedded Videos | 40 | 41 |
| Grades | 65 | 65 |
| Groups | 29 | 28 |
| Module Set-Up | 44 | 50 |
| Other | 8 | 11 |
| Quizzes/Exams | 45 | 45 |
| Syllabus | 67 | 65 |

**Spring 2020**

| Component | ASU | UCCS |
|---|---|---|
| Assignment Submission | 63 | 60 |
| Course Announcements | 66 | 64 |
| Discussion Boards | 46 | 43 |

| Embedded Videos | 39 | 46 |
|---|---|---|
| Grades | 64 | 63 |
| Groups | 30 | 29 |
| Module Set-Up | 44 | 53 |
| Other | 8 | 11 |
| Quizzes/Exams | 49 | 49 |
| Syllabus | 64 | 62 |

**Fall 2020**

| Component | ASU | UCCS |
|---|---|---|
| Assignment Submission | 63 | 63 |
| Course Announcements | 64 | 66 |
| Discussion Boards | 43 | 42 |
| Embedded Videos | 45 | 50 |
| Grades | 64 | 65 |
| Groups | 31 | 28 |
| Module Set-Up | 47 | 56 |
| Other | 6 | 12 |
| Quizzes/Exams | 54 | 53 |
| Syllabus | 61 | 65 |

## Canvas Non-Usage Reasons by Term

Questions 14, 17, and 20, asked respondents who indicated that they had not used Canvas

to note why they did not use Canvas for facilitating their courses prior to 2020, during the

Spring 2020 semester, and during the Fall 2020 semester.

**Pre-2020**

| Reason | Count |
|---|---|
| It was too difficult to learn | 1 |
| It wasn't useful | 1 |
| Never considered it | 2 |
| Other | 11 |
| There weren't enough resources to help | 0 |

**Spring 2020**

| Reason | Count |
|---|---|
| It was too difficult to learn | 0 |
| It wasn't useful | 0 |
| Never considered it | 1 |
| Other | 18 |

| There weren't enough resources to help | 0 |
|---|---|

**Fall 2020**

| Reason | Count |
|---|---|
| It was too difficult to learn | 0 |
| It wasn't useful | 1 |
| Never considered it | 3 |
| Other | 13 |
| There weren't enough resources to help | 0 |

## Additional Technology Usage

Question 21 asked respondents to select other technologies that they used beyond Canvas for facilitating their courses during the Spring and Fall 2020 semesters. Technology is reported by institution.

| Other Technology | Total | ASU | UCCS |
|---|---|---|---|
| Video Conferencing | 142 | 73 | 69 |
| Video Streaming | 84 | 50 | 34 |
| Cloud Sharing Applications | 63 | 42 | 21 |
| Other | 20 | 11 | 9 |

Other: Discord, Flipgrid, Peerceptiv, Perusall, Power BI, Panopto, Screencastify, Screencastomatic, Slack, SyncSketch, uCertify, VoiceThread, Wireshark, Yellowdig

## Campus Resource Used for Learning Technology

Question 22 asked respondents to select resources used to learn the technology needed to facilitate their courses during the Spring and Fall 2020 semesters. Resources are reported by institution.

| Resource | Total | ASU | UCCS |
|---|---|---|---|
| On-campus resource center or department | 95 | 47 | 48 |
| Other faculty | 80 | 38 | 42 |
| YouTube, or other streaming service | 55 | 22 | 23 |
| Software specific websites | 45 | 29 | 26 |
| Other | 35 | 18 | 17 |

Other: Virtual conference focused on remote teaching, Reading articles online about remote teaching, Guidance from current students, Google searches, Faculty training, No use of resources

**Did Technology Facilitate the Transition to Remote Learning?**

Question 31 asked respondents to indicate if the technology was helpful in making the

transition from on-site to remote learning. Responses are reported by institution.

| Tech Help | Total | ASU | UCCS |
|-----------|-------|-----|------|
| Yes | 125 | 64 | 61 |
| No | 10 | 6 | 4 |

**How Did the Technology Help Facilitate Courses?**

Question 32 asked respondents who indicated that technology was helpful in the

transition from on-site to remote learning to list reasons why the technology was helpful.

Responses were open-ended and coded for consistent themes using the MAXqda

qualitative analysis software. Responses were reviewed for consistent themes with four

primary themes emerging: video conferencing software, Canvas, virtual processes, and

the inferiority to in-person learning. Each code is further defined below.

*Video Conferencing Software (VCS)* – Responses that were coded into this category

referred to the essential usage of VCSs like Teams, Zoom, and WebEx, for facilitating

lectures and meeting with students collectively and individually.

*Canvas* – Responses that were coded into this category referred to the essential usage of

Canvas for any aspect of the course available via the software.

*Virtual Processes* – Responses that were coded into this category referred to how the

various technology facilitate established processes, like assignment submission, exams,

etc.

*Inferior to In-Person* – Responses that were coded into this category referred to how the technology allowed for the various aspects of course facilitating, but that the technology did not meet the same utility as on-site teaching.

| Help Type | Count |
|---|---|
| Video Conferencing Software | 51 |
| Canvas | 27 |
| Virtual Processes | 17 |
| Inferior to In-Person | 16 |

Question 33 asked respondents who indicated that technology was not helpful in the transition from on-site to remote learning to list reasons why the technology was not helpful. There were only ten respondents who responded in the negative and all respondents indicated some version of remote learning, regardless of technology, being inferior to on-site learning.

APPENDIX D

COURSE DESIGN TRANSITIONS

**Easiest Course Design Aspects to Transition by Term and Institution**

Questions 23 and 27 asked respondents to indicate which aspects of their course design were the easiest to transition in the Spring and Fall 2020 semesters respectively. Responses are reported by term and institution. Across both semesters ASU and UCCS faculty had similar percentages of respondents indicate the similar responses with the exception of discussions and learning objectives.

**Spring 2020**

| Campus | Component | Count | Total Responses | % |
|--------|-----------|-------|-----------------|---|
| ASU | Assignment Submission | 61 | 83 | 73.5% |
| UCCS | Assignment Submission | 54 | 75 | 72.0% |
| ASU | Course Engagement | 11 | 83 | 13.3% |
| UCCS | Course Engagement | 12 | 75 | 16.0% |
| ASU | Discussions | 21 | 83 | 25.3% |
| UCCS | Discussions | 14 | 75 | 18.7% |
| ASU | Labs/Recitations | 2 | 83 | 2.4% |
| UCCS | Labs/Recitations | 5 | 75 | 6.7% |
| ASU | Learning Objectives | 25 | 83 | 30.1% |
| UCCS | Learning Objectives | 29 | 75 | 38.7% |
| ASU | Lectures | 33 | 83 | 39.8% |
| UCCS | Lectures | 33 | 75 | 44.0% |
| ASU | Other - Please List: | 13 | 83 | 49.4% |
| UCCS | Other - Please List: | 6 | 75 | 42.7% |
| ASU | Quizzes/Exams | 41 | 83 | 15.7% |
| UCCS | Quizzes/Exams | 32 | 75 | 8.0% |

**Fall 2020**

| Campus | Component | Count | Total Responses | % |
|--------|-----------|-------|-----------------|---|
| ASU | Assignment Submission | 53 | 83 | 63.9% |
| UCCS | Assignment Submission | 49 | 75 | 65.3% |
| ASU | Course Engagement | 16 | 83 | 19.3% |
| UCCS | Course Engagement | 6 | 75 | 8.0% |
| ASU | Discussions | 29 | 83 | 34.9% |
| UCCS | Discussions | 11 | 75 | 14.7% |
| ASU | Labs/Recitations | 2 | 83 | 2.4% |
| UCCS | Labs/Recitations | 4 | 75 | 5.3% |
| ASU | Learning Objectives | 25 | 83 | 30.1% |
| UCCS | Learning Objectives | 32 | 75 | 42.7% |
| ASU | Lectures | 34 | 83 | 41.0% |
| UCCS | Lectures | 31 | 75 | 41.3% |
| ASU | Other - Please List: | 15 | 83 | 39.8% |
| UCCS | Other - Please List: | 11 | 75 | 42.7% |
| ASU | Quizzes/Exams | 33 | 83 | 18.1% |
| UCCS | Quizzes/Exams | 32 | 75 | 14.7% |

**Most Difficult Course Design Aspects to Transition by Term and Institution**

Questions 25 and 29 asked respondents to indicate which aspects of their course design were the most difficult to transition in the Spring and Fall 2020 semesters respectively. Responses are reported by term and institution. Across both semesters ASU and UCCS faculty had largely dissimilar response percentages to each aspect.

**Spring 2020**

| Campus | Component | Count | Total Responses | % |
|--------|-----------|-------|-----------------|-----|
| ASU | Assignment Submission | 3 | 83 | 3.6% |
| UCCS | Assignment Submission | 3 | 75 | 4.0% |
| ASU | Course Engagement | 38 | 83 | 45.8% |
| UCCS | Course Engagement | 42 | 75 | 56.0% |
| ASU | Discussions | 22 | 83 | 26.5% |
| UCCS | Discussions | 30 | 75 | 40.0% |
| ASU | Labs/Recitations | 11 | 83 | 13.3% |
| UCCS | Labs/Recitations | 16 | 75 | 21.3% |
| ASU | Learning Objectives | 5 | 83 | 6.0% |
| UCCS | Learning Objectives | 4 | 75 | 5.3% |
| ASU | Lectures | 13 | 83 | 15.7% |
| UCCS | Lectures | 20 | 75 | 26.7% |
| ASU | Other - Please List: | 22 | 83 | 26.5% |
| UCCS | Other - Please List: | 15 | 75 | 20.0% |
| ASU | Quizzes/Exams | 6 | 83 | 7.2% |
| UCCS | Quizzes/Exams | 11 | 75 | 14.7% |

**Fall 2020**

| Campus | Component | Count | Total Responses | % |
|--------|-----------|-------|-----------------|-----|
| ASU | Assignment Submission | 2 | 83 | 2.4% |
| UCCS | Assignment Submission | 1 | 75 | 1.3% |
| ASU | Course Engagement | 34 | 83 | 41.0% |
| UCCS | Course Engagement | 44 | 75 | 58.7% |
| ASU | Discussions | 18 | 83 | 21.7% |
| UCCS | Discussions | 25 | 75 | 33.3% |
| ASU | Labs/Recitations | 8 | 83 | 9.6% |
| UCCS | Labs/Recitations | 9 | 75 | 12.0% |
| ASU | Learning Objectives | 3 | 83 | 3.6% |
| UCCS | Learning Objectives | 2 | 75 | 2.7% |
| ASU | Lectures | 11 | 83 | 13.3% |
| UCCS | Lectures | 18 | 75 | 24.0% |
| ASU | Other - Please List: | 23 | 83 | 27.7% |
| UCCS | Other - Please List: | 14 | 75 | 18.7% |
| ASU | Quizzes/Exams | 8 | 83 | 9.6% |
| UCCS | Quizzes/Exams | 11 | 75 | 14.7% |

APPENDIX E

FACULTY PERCEPTIONS OF SUCCESS

**Faculty Ratings of Course Transition and Student Success**

Questions 34, 37, 39, and 42, asked respondents to indicate their perceived success with transitioning their courses to remote learning, and their perceived success of students learning the course material as compared to on-site learning. Self-rating generally increased, more scores of 4 and 5, for the Fall 2020 semester for both metrics.

**Spring 2020**

| Course Transition | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 2 | 1.6% |
| 2 | 8 | 6.2% |
| 3 | 40 | 31.0% |
| 4 | 55 | 42.6% |
| 5 (Completely Successful) | 24 | 18.6% |

**Fall 2020**

| Course Transition | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 1 | 0.8% |
| 2 | 2 | 1.6% |
| 3 | 23 | 18.5% |
| 4 | 62 | 50.0% |
| 5 (Completely Successful) | 36 | 29.0% |

| Student Success | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 3 | 2.4% |
| 2 | 7 | 5.5% |
| 3 | 43 | 33.9% |
| 4 | 50 | 39.4% |
| 5 (Completely Successful) | 24 | 18.9% |

| Student Success | Count | Percent of Data |
|---|---|---|
| 1 (Not Successful) | 3 | 2.4% |
| 2 | 3 | 2.4% |
| 3 | 33 | 26.8% |
| 4 | 51 | 41.5% |
| 5 (Completely Successful) | 33 | 26.8% |

**Faculty Ratings of Course Transition and Student Success by Modality**

Questions 35 and 40 asked respondents to indicate in which modality they taught their courses, synchronously, asynchronously, or a hybrid. Modality was then compared to perceived success of course transition and student learning to see what impact modality might have had on perceived success.

**Course Transition**

| Spring 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 0 | 2 | 19 | 26 | 5 |
| Asynchronously | 0 | 4 | 9 | 14 | 8 |
| Combination | 2 | 2 | 10 | 15 | 11 |

| Fall 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 0 | 8 | 31 | 10 |
| Asynchronously | 0 | 1 | 6 | 10 | 12 |
| Combination | 0 | 1 | 6 | 21 | 14 |

**Student Success**

| Spring 2020 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 3 | 12 | 24 | 10 |
| Asynchronously | 1 | 0 | 7 | 11 | 10 |
| Combination | 1 | 0 | 11 | 16 | 13 |

| F20 Modality | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Synchronously | 1 | 2 | 21 | 21 | 5 |
| Asynchronously | 2 | 3 | 12 | 12 | 6 |
| Combination | 0 | 2 | 8 | 17 | 13 |

APPENDIX F

FACULTY SHORT NARRATIVES

Question 44 asked respondents to briefly outline how creating an online course differed from creating an on-site course for the Spring and Fall 2020 semesters. Question 45 asked respondents to detail up to three surprises they encountered when transitioning their courses. Of the 166 respondents to complete the survey, 106 provided and answer to question 44. Of the 166 respondents to complete the survey, 102 provided responses to question 45, with a total of 282 responses (up to three for each respondent). Each question was originally coded individually, but after the initial coding and analysis, it became clear that both questions contained very similar themes. So, the questions were re-coded based on a standard set of themes that emerged from both questions. The primary differences in themes were that of Digital Divide not being present in Question 44 responses and Course Facilitation having virtually no presence in Question 45. Coding definitions are reported along with their reported occurrence within the responses.

**Coding Definitions:**

*Adaptability, Flexibility, Resilience* – Responses that were coded into this category spoke to the adaptability of students and faculty, the flexibility of students and faculty when adapting, and the resilience of students and faculty to work through, the transitions in Spring and Fall 2020.

*Course Facilitation* – Responses that were coded into this category referred to challenges surround facilitating course with the given technology in the Spring and Fall 2020 semesters.

*Course Materials* – Responses that were coded into this category referred to the challenges around converting course materials into Canvas, or other technology.

*Digital Divide* – Responses that were coded into this category referred to the differences in access and support with technology between students.

*Organization, Preparation, and Workload* – Responses that were coded into this category referred to the additional work to prepare, organize, create, and maintain a course online versus a course offered on-site.

*Student and Faculty Expectations* – Responses that were coded into this category referred to the expectations that faculty had regarding students that were incorrect, or wholly surprising.

*Student Engagement* – Responses that were coded into this category referred to the challenges with engaging students in courses.

*Teaching Pedagogy* – Responses that were coded into this category referred to either challenges with translating discipline-specific pedagogy to the online space, or with the challenges in developing an online teaching pedagogy.

*Technology Concerns* – Responses that were coded into this category referred to the challenges around utilizing the available technology to transition courses.

**Differences between Developing an On-Site and Remote Course**

Question 44 asked respondents to indicate what the differences were between developing an on-site course and a remote learning course. Developing course engagement in remote learning environments was the most common theme among respondents.

| Code | Count |
|---|---|
| Adaptability, Flexibility, Resilience | 7 |
| Course Facilitation | 13 |
| Course Materials | 19 |
| Digital Divide | 0 |
| Organization, Preparation and Workload | 19 |
| Student and Faculty Expectations | 4 |
| Student Engagement | 28 |

| | |
|---|---|
| Teaching Pedagogy | 8 |
| Technology Concerns | 18 |

## Full Text Responses to Question 44

| Please briefly describe how creating an online course was different than creating an on-site course for the Spring and Fall 2020 semesters? |
|---|
| The majority of the work was done before the online course began. I had to be much more organized with an online class. |
| Writing quizzes was totally different |
| In Spring, I had to reimagine the course on the fly; I had to switch from interactive learning to asynchronous learning and adjust all the in-class experiences to fit that mode. It was a challenge. |
| Much more of the content would need to be uploaded to the canvas page so students can readily access it. |
| Not seeing students faces to determine engagement and if I should change up how I am explaining a topic.<br>If you are specifically referring to canvas, it was not very different.  I posted the videos to go with the guided notes, and did tests online. |
| For me, the biggest differences are in not being able to meet a class off-campus for assignments I tend to do. This meant that some of the community engagement built in to my courses wasn't possible, although I did get some people to Zoom with us. That was something I have done a lot in the past but this time it took on a larger role--but a successful one.<br><br>But also, Zoom has a certain intimacy to it in that we all end up seeing and knowing each other's names, for example. That was a benefit that isn't common in a regular environment and something I could take advantage of.<br><br>Because I have created online courses before, this was not a huge hurdle overall. |
| The pedagogical perspectives are radically different if we think about it as a binary. However, when considered as a spectrum, this "transition" is far less jarring. |
| Again, I have issues with the wording of this question. Are you trying to ask about what was different in redesigning an in-person course for a synchronous online environment? Or just the differences in general between designing online and in person courses? Because the way this question is worded, it implies the latter. |
| already online |
| completely different conceptualization of facilitating student led, student centered course engagement activities. |
| I did not prepare a full online class- i taught some students in person and others through zoom, simultaneously |
| It wasn't for me. |
| It was more work to make videos and put assignments both in a syllabus document as well as online. It was like doing everything twice. |
| Finding ways to keep depressed And anxious students focused and engaged on class content |
| i still struggle with making assessments 'google proof' and lab experiences are no way the same |
| They're nearly identical; the only larger issue is having to create video content for online courses. |
| It is so incredibly time-consuming and exhausting. I have all my materials ready for in-person learning and do minimal prep. I basically had to start over. Learn new skills, translate the material into an online situation (would it work? Is it appropriate? Is it available/accessible?)<br>My level of engagement had to be over the top during class to keep people engaged. And I spent a lot |

more time talking with students one-on-one over zoom and email, trying to mitigate, help them succeed in the course.

Facilitating discussion in the online course requires new strategies like dividing the students into groups and reporting out their discussion.

no difference

Spring was a transition, so it was different simply because we had to adapt in the middle of things. For spring, though, I dialed down my expectations significantly after the transition. For Fall, my course was scheduled to be online so it wasn't different. However, if that course had been F2F, I would have required far more collaboration in real time among students.

Creating an online course removed my ability to be spontaneous in class meetings. In an on-site course, I might let a discussion go off in a tangent and then come to the board to write a few terms or take notes on students' ideas, but I didn't let any of these tangents happen in the online class because it wasn't as easy to keep students engaged. Also, little things (like breaking into small groups) took much longer than planned, so I felt like I wasn't able to accomplish as much as normal in each class meeting.

Feedback, There is little to non in an online course unless you as the instructor make the time to create opportunities for student-faculty interaction.

Much more front-loading on my part, esp. in terms of lecture prep and pre-recording.

Fighting with Canvas after having used BlackBoard for many years.!!!

With my online courses, i had more time to create them (in fact, all of the courses I have taught online, I first taught once in the "hybrid" format, so I had moved half online in a previous semester). With Fall 2020, it was all new in same semester so a lot of work.

It is FIVE times more work! It is a waste of a lot of valuable pre-class prep time and extremely frustrating when I don't understand the technology and the experts expect me to understand it.

There was no preparation for Spring and there was for Fall. I was lucky because I taught an overload in the Fall. If my load had been reversed, it would have been a big problem.

Keeping student engagement high. Easy for students to have distractions, leave class early, arrive late, etc.

Online teaching required way more foresight. I usually plan the course as an outline, know when the major due dates are, know what each unit needs to accomplish, etc. Online teaching requires me to plan and create content a week or two in advance. Which is fine, but it can sometimes feel 'dated' if I'm trying to use modern examples and materials are lagging with the news cycle.

Labs/field trips don't go online well

The time to create, edit, and caption video lectures is insane.

DIdn't teach an online class before

Remember, I taught in both formats before and only taught one course on-site during these two semesters.  That said, I tried to up the student engagement (with each other) in the fully online version in fall 2020.  It seemed to help.

The fact that I use almost everything from my online course for my onsite course also made it much easier to switch in spring.  Not only did I have all the materials in Canvas, but the students had been using Canvas to access those materials for two months.  I tell the on-site students that they get all the materials the online only students get, plus me for 2.5 hours a week, so it's kind of embarrassing that the online students actually typically do a little better than the on-site students.  We talk about why that might be at the first class meeting, but it doesn't seem to push the on-site outcomes higher than the online outcomes.

I can't imagine having to move fully to online on a week's notice.  My course has taken many years to become something I am proud of, even though I had a summer to prepare for offering it online the first

time (ten years ago).  I am sure most people chose remote synchronous, but even that would have been much harder without my use of existing online materials.

| |
|---|
| 1.  Trying to figure out a schedule that was conducive to students' lives rather than based upon the content.<br>2.  Factoring in guidelines for preventing cheating rather than just teaching for the content.<br>3.  On a positive note, every topic i taught i reflected about how to teach it to make sense and whether that topic was really important enough to teach.  Some things I eliminated because the perceived gain was too small for the effort.<br>4.  I thought totally about how a student would perceive the content and pictured all the difficulties/misperceptions they might have and addressed those in the lecture, head-on. |
| I had to be more explicit in my directions online versus having the benefit to talk through questions or concerns as a group. |
| In-class course involve interactions with students - that was definitely harder to arrange with the on-line course.   So you had to plan out things to get students to respond rather than doing it spontaneously. |
| Re-think student engagement.  Promote community differently.  Providing psychomotor education was a challenge |
| Have to make sure instructions for assignments are very clear and all prerequisites for assignments are clearly explained. |
| The online remote synchronous courses took more prep than in person. I was teaching courses I had taught in the past but never in the remote synchronous format. I had not used Teams prior to fall 2020 for any course instruction and trying to navigate all the tools that I used in my courses (e.g. Teams, Canvas, videos, polls, whiteboards, etc.) took some skill to get comfortable with before the semester. You have to have patience to navigate tech issues that often don't occur in the classroom and sometimes these eat up time in your class period. For this reason, also being flexible is really important in this format. |
| I feel like I've said this about five times. I put all of my content into the LMS to begin with, then decide what I teach in person, remotely, and asynchronously depending on what's allowed at the time. Having the electronic platform to work from allows me the flexibility to change with the conditions. |
| More detailed planning of discussions and reading reviews. |
| To do a good job, it must be heavily structured ahead of time. |
| At this point, I'm getting tired of taking this survey, FYI. Had to be really creative of how to keep all the plates spinning. Facilitating the course chats, breakouts, share screens was exhausting, lecturing, grading attendance, etc with the constant FEAR of disconnecting or slow connection. |
| Significantly more preparation for online course building. Payback is Spring 2021 where course building and preparation is near minimal levels. Consideration of students following course demos and needing screen real-estate to follow along in their own software. Often difficult on a single laptop screen. |
| There is far more preparation time required for teaching online, both prior to the semester and between class sessions. |

| |
|---|
| It's more work, technology difficulties, bad connections internet speed, camera's focusing, being able to hear with a mask on. Tactile learning is the best in a Metals studio |
| I'm not sure what this refers to... I had created online courses in the past, but they were asynchronous. Spring 2020 was the first time I'd tried to teach the synchronous portions remotely. |
| My courses this fall were hybrid with students both in the classroom and simultaneously online and that was the most difficult. We could not require students in the classroom to bring a laptop so planned team breakouts and engagement was stymied. |
| A LOT more work to create online materials, and verify they were accurate. Whereas in an in-person course, misunderstandings are easily clarified, the online courses require much more preparation, many, many emails to clarify-- and confusion still happens because students don't read!! |
| By online, do you also mean synchronous hybrid courses? We're pretty careful about how we use language . . .<br>I don't know how to answer this.  It's not a matter of creating the course, which is about content, it's a matter of how to deliver that content and facilitate learning. As I've already said in this survey, the pace is different (as in slower) and the interactions are less rich in a hybrid environment as compared to an in-class environment. We did good work. It's not a rich and we covered less. |
| i was better prepared for fall, with peer-learning. |
| If we were in physical face-to-face learning, I would be working to find face-to-face out-of-class encounters with the students to demonstrate my interest in their academic and personal advancement not only in my course(s) but in their full academic program.  The virtual learning model limits casual and "accidental" encounters that might5 enright the learning environment. |
| We had to use some simulated nursing experiences on-line to substitute for live patients, but the simulated scenarios were predictable and repeatable.  The simulated patients could not anticipate all the possible student interactions and responses.  Live patients are so much more interesting and varied in their responses and expectations.  We developed a nursing management meeting scenario that worked well online.  Also a patient communication scenario with a live actor that was well received. We also did more student meetings and staff meetings on-line. |
| Spring 2020 was definitely hard.  We just had to do a lot of adapting the best we could under difficult circumstances for everyone, particularly our students, who were really disappointed in the change and many of whom were dealing with job loss and lots of stress. So just getting everyone through it became the main goal.  Fall was more similar to being on-site as we still could meet on Zoom and use Canvas mostly to support those discussions |
| Engagement exercises, and more but smaller student assessments so I could catch issues sooner and with more detail. |
| Lack of interaction in real time with students and visitations to industry. |
| Creating exams is one of the most notable differeneces because I had to plan on open-book exams in the virtual environment. I did not use the lock-down browser because I understand it could prohibit students from accessing soft copy notes. |
| More knowledge needs to be added to online courses so students are self paced |
| Creating an online environment is always different as you have to include extra practice for students and think about ways of keeping them connected to the material throughout the week rather than for an intense 3 hour in seat section. |
| There was SIGNIFICANTLY more work to create my Fall 2020 courses, even though these were technically not new preps. |
| You have more flexibility in on-site classes because you can regularly engage with the students face-to-face. With online course every detail of the course needs to be worked out prior to the beginning of the semester. |
| The only real difference was adding the synchronous online component in Teams. |

It requires much more preparation on the front end, and finesse. I had to do a lot of front loading (preparing modules, for instance), whereas in live classrooms there is a lot of room for improvisation and creativity on the spot. I also had to be very clear in my instructions, and take ownership of any errors I made (which were many) while the course was happening. With all of the front-end preparation, as the sole professor, mistakes are inevitable, so it was difficult to have to constantly correct myself and backtrack throughout the semester. I also had to be very clear about virtual meetings etiquette, technology requirements, etc., which was another layer of "stuff" to worry about going into the semester. I had to constantly think about "what if" scenarios with technology, student engagement, assignments, etc. It was definitely stressful for me before the classes began, and during the semester. Not to mention the extra grading! In a live class you can conduct formative assessments on the spot, have students do live presentations easily that can also be graded on the spot, etc. In preparing the online classes I had to come up with additional grading structures and assignments that I could use to gauge student learning, which was extra work before, during, and after the classes.

Online courses have to be thought out in great detail prior to the start of the semester. The good news is that it forces me to be more thoughtful about the purposes of each piece of the course. The bad news is that the course can't evolve as easily to fit the culture of the particular classroom community.

Not much different - the big change was the transition from blackboard to Canvas.

Creating an online course removes the spontaneity at times, so I had to anticipate questions from students. In class demonstrations were not as good quality, so video recordings were heavily used.

They are completely differnet. I teach online asynchronously every semester. You can't just "put" a class online. It needs to be rethought and redeveloped.

Absolutely everything needed to be prepared in advance. I also posted my own notes at the end of every class. This was not something I'd done in the past. My students seemed to find it helpful. I also had to work around not being able to access materials and resources I would have had more available if we'd been in person.

The hardest thing is to encourage student engagement with the materials. The best way I've found to do this is to communicate often to students through announcements, emails, etc.

There is more legwork involved with recording, editing and posting lectures. Figuring out ways to engage students in virtual meetings was a challenge.

The course objectives and lesson all had to shift focus because we could not work with human subjects. This resulted in a completely different course than what was planned.

I think more strategic planning was necessary. Having to design a course from beginning to end instead of having time between classes made the process quite the bear. Once it was done though, the semester ran rather smoothly.

Due to the experiential nature of many courses I teach, the online environment provided a mediocre substitute for skill development and personal growth opportunities required of students.

I'm in the School of Music so teaching one-on-one lessons via Zoom had many challenges. It is MUCH easier and efficient to be in the same room with students so that I can get a better view of body position, hand position, breathing, posture, etc. Also, MUCH easier to diagnose tone when in the same room with students rather than over wi-fi connections.

The main difference was the intentionality behind each lecture and assignment. Rather than using the alloted time, I found myself re thinking the content and asking what was of the highest value for the students as they were not going to retain every detail.

In the Spring, the transition was so unexpected, that I could make things work. My past experience for the University of Phoenix was valuable since I could navigate online learning for my students. In the Fall, the department had made decisions about remote teaching without any input from lecturers and not all decisions were successful for students as a whole.

Quite different. The online course lacked the interaction that a face-to-face course offers. Exams were difficult to administer and students expressed stressful exam taking using Lockdown Browser + Respondus Monitor

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| I have had to move more aspects online than I usually would: Quizzes and exams. |
| You have to intentionally create student interactions in the remote setting. These interactions help learning, and students won't set these things up themselves. You need weekly check-ins to make sure the students are staying engaged. |
| The main difference is that there is less available to draw from my students. I try to be as student centered as I can, and often that involves reading the reactions of my students, listening to how they are describing course material when they are working in groups, and reading how they are doing in general. Online learning made it more difficult to see when my students were struggling, when they needed more time with a concept, or when it was time to change gears or modify for their needs. |
| presentation of content on a small (computer) versus big screen (lecture hall projector) and ability of students to perceive the same; spontaneous interaction to ask questions, have open discussions and to have access to a white board |
| It was much more difficult to carry out group work in the online environment. |
| In a fully online course, students enter with the expectation of a different kind of engagement. Discussion boards, YellowDig, and other such tools help to create community. In an in-person class that has moved online, however, students have different expectations. While digital tools can help, they cannot fully capture the same experience. |
| Labs, in-class exercises and demos were more time consuming or impossible. |
| The greatest difference was that I had to learn to be more structured in my presenting of information. The problem was me - I relied on student feedback and nonverbals - to see if they were getting the information. Online I didn't get that so I had to change my approach. It was actually very challenging. |
| I have taught in-person classes for decades; except for updating with new research findings, I don't have to prep too much; prep for posting everything online was time consuming |
| For a class with computer lab sessions, carefully choosing a stat software is critical. Given the limitation of Remote Desktop via VPN, I chose the SAS OnDemand, which runs on any computer and operating system. |
| Spring was just damage control, especially since so much of our class was centered on a group project that itself got cancelled. Fall involved advance warning that it would be a compromised teaching experience, and I was able to talk with colleagues who had taught the class online in normal times and draw from their experience somewhat. |
| I've created online classes for years, and the difference for me in the past year was the pressure to just do a better job than ever. With so many negatives in the world, I wanted the class to be a positive, and so I worked harder to try to incorporate ALL the best practices: accessibility, variety of learning opportunities/assignments, videos as often as possible to supplement, and quick feedback. I tried to hold myself to a higher standard. |
| Mainly in the use of videos for lectures, creating videos and posting to YouTube rather than in person lectures. |
| Time is a big factor. For instance, discussions that are easily handled in a single onsite class can easily take a week online.<br><br>Tone is another big factor, especially in written communication. I tend to joke with my students, but find it hard to enter those jokes into my lectures. A colleague who has been teaching online longer than I have told me that we have to sound like cheerleaders or they take offense. I find this to be true. |
| learning the technology to THEN teach the course |
| For the canceled, co-taught course for Fall, the difference was felt in how organized we have to be for online teaching, and that was a shift from how we have taught courses in the past. In person, I think it feels like there is more room for delayed planning, and more reliance on the sort of magic-in-classroom moments. Online-only, the plan has to be there all the way through, or students panic. |

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| I have had to sit back and think about how I teach this material for online courses. The COVID-19 pandemic has changed the way I approach teaching pedagogy. It causes teachers, professors, and instructors (like me) to change course completely and learn to adapt.<br><br>After looking at my teaching evaluations, I realize that in the student view while I provide a lot of resources, I need to work on not having a cluttered online course. While students said I had many examples, they also said at times they felt overwhelmed.  I do not want to have this be a distraction for online learners. I also males the aesthetics of the course less visually appealing.  My goal is to go and remove any extraneous elements and keep it simple and clean. |
| In creating online courses you have to anticipate every question that might be asked and try to provide those answers in advance. Students are not as likely to email a question as they are to raise their hand in class. |
| When you create an online course you start with that end in mind; when moving a course remotely you are trying to restructure it but it is like a square peg and round hole sometimes - feels very forced and awkward |
| Much more work to find engaging content without the live feedback. |
| The introduction part of the course is awkward. I filmed an intro video but that is one way.  Don't get to see attitudes and personalities |
| No difference. |
| format of instruction changed |
| More time consuming.<br>Group work especially was challenging. |
| Students were less responsive, responsible, and reachable. |
| So. Much. More. Work. |
| More organization and more detailed communication needing to be in Canvas. When in person can use those times to explain things without needing as much information on Canvas.  Finding ways to engage students in synchronous lecture was much harder to do. Much more difficult to track milestones on group projects which we formerly did in person informally and now we had to do formally in Canvas, with grading and feedback need in formal way so more time consuming. |
| At age 71, I can't believe I survived transitioning to online. But I wonder if I should retire again! |
| using activities for interaction that were suitable for remote learning |
| I am adjunct faculty so course creation is not really my responsibility. But conveying course content was different in that faculty had to be more creative in engaging students and encouraging interaction which is so important at the graduate level |

**Surprises from the Transition**

Question 45 asked respondents to list up to three surprises that occurred during the Spring and Fall 2020 semesters. Student course engagement was the predominant theme among respondents with more than half of the respondents mentioning it. Course engagement was closely followed by Technology Concerns.

| Code | Count |
|---|---|
| Adaptability, Flexibility, Resilience | 34 |
| Course Facilitation | 1 |

| Course Materials | 11 |
|---|---|
| Digital Divide | 8 |
| Organization, Preparation and Workload | 24 |
| Student and Faculty Expectations | 30 |
| Student Engagement | 66 |
| Teaching Pedagogy | 26 |
| Technology Concerns | 49 |

## Full Text Responses to Question 45

| Surprise 1 | Surprise 2 | Surprise 3 |
|---|---|---|
| I loved the self-grading quizzes. | I could be more engaging online than face-to-face. | It took lots of effort to keep students engaged in the online class. |
| Students asked far more questions in the chat than they ever did in the classroom. | Students answered other students' questions in the chat. | I was able to catch mistakes in lecture rather than waiting to have them make them on quizzes. |
| Some students that were poor students in-person were strong students online. | Some students that were strong students in-person were poor students online. | Students gave me a lot of benefit of the doubt instead of being critical of my efforts to get things going on the fly. |
| I missed seeing students. | I like not driving to work. | Students treating office hours like a study hall time, just haning out on zoom with me while they work. |
| ASU's insistence on face-to-face options for students. Although I understand the reasons given, this was a HUGE problem for those of us who could reasonably manage the online context and could have been left alone to do our job well. | that there are some advantages to the Zoom context, including everyone being equidistant from each other, knowing names, having chat/verbal contributions simultaneously, etc. | That ASU has not done a better job of ensuring students have good internet/computer access. |
| The hamhandedness of the university response. | The lack of meaningful training for faculty | The extent to which issues of access and equity were almost completely ignored. |
| The degree to which my freshmen students could be flexible in their expectations for the course | I was surprised by some of the creative solutions the student groups came up with to achieve their goal. | It was much easier than I expected it to be. And again, I already had a lot of experience with online learning. |

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| Difficulty to breath with a mask on | Difficulty hearing students speak with a mask on | Lack of autonomy for instructors to choose the best delivery system to teach their own classes. |
| it went well | how scared I was to see myself on the screen | so many students did not turn on their cameras |
| It happened | The feedback from Zoom in the classroom | They want to continue it |
| Freshman were more enthusiastic and mature than upper division students | It is really tiring to teach well on zoom | Zoom never went down the whole semester |
| everyone very flexible, empathetic, understanding | student research projects were still okay and students enjoyed collecting their own data | even though students preferred to stay on Zoom for lectures, they all (100%) attending small group field trips. being in the field was the highlight |
| i love the chat feature in zoom. it facilitated energy and engagement in a way I hadn't expected | all the equipment I needed to buy | the gratitude that students showed throughout. They were stressed and anxious and many worked hard to overcome it, and were very appreciative |
| Connection with students via zoom was strong due to all of us having to show vulnerability | my computer doesn't work as well as I want; screensharing while my video is on is difficult | |
| The administration was tentative in Spring 2020 about the online option. | | |
| Lack of student motivation | How easy it was to adapt assignments | The amount of support offered to transition to fully online -- although I didn't use most of it. |
| How fun and engaging the chat features in a synchronous meeting can be. I did get some students to interact in the chat in ways that might never happen in an on-site class, like having students share one-word check-ins at the beginning of class, choose stickers to praise each other's | That students didn't try to fake engagement. I thought students (especially seniors) would want to have their cameras on and show that they were engaged in class and paying attention even if they weren't, but most students had no qualms about just listening in without doing anything to | How understanding students were. When things didn't go perfectly and I asked for students' patience, they were all incredibly gracious. I don't think my Fall classes were anything special, but my feedback from students on course evaluations was strong. They were generous! |

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| presentations, or use emoji to weigh in on class topics. | demonstrate that they cared or were paying attention. | |
| # of hiccups there were in tech and other aspects of teaching the course. | How removing the hiccups made the process smoother but probably did not increase the quality of the learning opportunity | How revising your own assessments removed the hiccups, improved the quality of the learning opportunity, and got to the bottom line of what you wanted students to get out of the learning opportunity. |
| How absolutely panicked everyone was. | How much my advice, as someone experienced with technology and remote instruction, was dismissed by other faculty. | How understanding students were of my circumstances. |
| how few (almost none) students would keep cameras on even when I encouraged it | How different it is to teach online to students who signed up for face to face (vs "online" students who mostly have taken other online courses and can navigate Canvas) | How many students don't know that 12pm is noon and 12am is midnight! |
| level of difficulty for me | how much students despise online learning | how isolating and disconnected online teaching/learning is |
| How students did not understand lecture videos | How well students presented over Zoom | Because we had gotten to know each other in class, it was fine over Zoom. |
| Disengagement high | Weak students did more poorly than expected. Lacked support. | Lack of peer engagement |

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| Students were generous and understanding, more than ever (especially when I got sick and didn't return things as quickly) | I enjoyed a more relaxed, flexible approach to my course policies and expectations. I approached teaching with more humanity than every before (and I thought I was pretty nice before!) | The university encouraged us to work/life balance, but didn't lower any of our expectations. Don't tell us to take care of ourselves and then not lighten the load or give us time to do it. It's an empty encouragement. |
| A majority of students in my hybrid course, some of which expressed no desire for any online instruction at the start of the class, chose video lectures over in-person lectures later in the semester when the opportunity arose for some in-seat lecturing. They cited the ability to watch the lectures whenever, to pause, rewind, and take breaks, and the format providing an "almost in-person" experience. | Some students withdrew as soon as the remote transition was announced, even though they had A's beforehand. | Even when detailed instructions and communications are provided, many students don't read them at all- even though there is no other way to get the important information in an online course. |
| That some students actually don't care about losing their money through non engagement;  thought college was supposed to be about higher learning (I teach upper level and graduate courses) | That I need to not be so available 24/7 to anytime they have questions--I was extremely burned out by December | That I need to make more tests all multiple choice to make it easy on me to grade while creating more practice quizzes so they can have the repetition |
| Students' resilience.  They seemed to overcome things that would have derailed them in "normal times" | I had more meaningful one-on-one conversations in my fall online course than I remember ever having had before. | I still don't understand fully why my fall online course seemed so much more time-consuming than normal.  It was unusually large, though. |
| Spring 2020:  we taught in person and I had missed a 3-week chunk of time while i was out of the country (covered by a colleague).  I knew the students through lecture but got to know them much more so when we went online because i could see their pictures and talk to them 'one to one' | how easy it is for students to disengage and not attend online class | how important a good whiteboard is:  Teams was really rustic. It was very hard to draw all the chemical structures we need to teach organic |

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| Students preference for asynchronous because their lives had been turned upside down | The disconnect I felt from students | That learning can occur asynchronously |
| Some applications were better using remote actors than going to clinical sites | The wealth of resources we had not considered using | Re-working every aspect of each course was exhausting |
| Some students adapted well that I was worried about. | Some students did not adapt as well as I expected. | |
| How much I enjoyed the remote synchronous format | The ease in which discussions could happen online | The need to communicate more often things that I thought students were comfortable/knowledgeable with |
| How willing my students are to be flexible | How able my students are to juggle many formats and sets of expectations | How much easier it is to teach from home if I need to. |
| Scholars unwilling to view materials in Canvas | Despite offering a synchronous session to record weekly overviews and lectures, the vast majority of scholars did not attend, despite feedback saying they wanted more direct engagement with faculty | |
| How well I felt I knew the students | How difficult it is to assess understanding | |
| Students thought the setup worked just fine | Students said they don't want to go back to learning in the classroom | Students really don't want to turn on their camera or ask questions on audio |
| I could do it! | Students said they learned a lot! | The students were so patient and lovely! I'm sure it was like their grandma running the entire computer operation, they're holding their breath hoping I click the right thing. Omg |
| Student microphones are terrible. | high quality desktop streaming of Audio-video is generally terrible. | Consistency on my side helped with student success and retention. |
| Students needed more time | 6 feet apart was hard to learn | money constraints and illness |
| Security issues/Zoombombing attacks (that were probably facilitated by a student in the class, sadly) | I was better prepared for my synchronous class sessions because I HAD to be if doing | Students found creative solutions for working remotely on projects. |

| | them on Zoom (i.e., it's way harder to improvise) | |
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| Overall students were very understanding | | |
| It was much more enjoyable than I anticipated | Students responded much better than I expected | Some (very few) students are willing to throw a lot of money down the drain by not assuming responsibility for their own learning. |
| Some students' inability to get online | | |
| HOW SLOW THE PACE IS | How awful zoom is for music | How little help there is for SOUND problems |
| the lack of resources to learn what the "right" way of doing things is. | | |
| A traditional setting at the beginning of spring semester enhanced the willingness to engage the uniqueness of the virtual activities later in the term. | Almost no students and no faculty had experience with zoom-based interaction before spring 2020.  With fall 2020, everyone was competent and experience with zoom-based learning and approached it as an expectation rather than as as novelty. | For digital natives, the capacity for multi-tasking in the internet universe meant that students to seek and access and share access to enriching content and resources during lectures and class discussions.  If i went back to full face-to-face teaching tomorrow, I would probably ask all students to bring their devices to the classroom, log in concurrently with our in-class discussion (without sound) and encourage them to find and to share with all content complimentary to the discussion. |
| The creativity of our team in developing nursing scenarios that were valuable. | How well I learned to use Teams. | How much extra time it took to abide by the requirements of limiting the number of students in any meeting at the hospital. |
| Discussion still went well on Zoom in Fall 2020 | Teaching seemed more exhausting in this format | |

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| Student Stress really impeded some kids. | Students helped each other with the tech when I wasn't available. Teams worked great for this. | I also run the MAE Help Center. The fortitude and work ethic of the tutors was amazing and they really contributed to making it work for their peers. |
| Engagement. | Adaptation. | Improvisations. |
| harder to get to know students | harder to facilitate discussion in virtual environment | harder to create exams in virtual environment |
| Much more time involved with setting up course | Pulling teeth for students to participate in discussion | higher scores |
| Bandwidth matters as much as the quality of the material included in the online section. | Students enjoy the sychronous components more than expected. | Students needed a lot more emotional support than normal. |
| The amount of prep time. | After prepping, I thought there might be less time required during the semester. This was not the case. | |
| The additional work throughout the semester to monitor student engagement | The increased flexibility I had to have with students as they also transitioned, and how that would add to my workload | The technological capabilities of Canvas and other software services |
| How much work it was to prep an online course | How much I miss engagement with the undergrad students as humans | How similar a grad seminar is online synchronous to what it is in person. |
| How well the format worked for prepping and giving group presentations | How poorly attended was a large lecture class I took over for another professor at end of Spring 2020 semester e | How much my exec ed students preferred face-to-face learning |
| Flexibility was appreciated by both sides | Engagement still remained high in the fall | |
| students' resilience and good humor | the institutions' kindness and flexibility | |
| The positive feedback from my students. | The combination of remote teaching + pandemic + the current political climate allowed some few students to express (racist, anti-Semitic, homophobic) perspectives that I don't think they would have in person. | That Fall semester was as personally rewarding as it was. |
| Time spent has been enormous | Effectiveness of discussion boards | Student resilience. |

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| How much students like to have lectures available online | How nice it was to use Canvas for grading (e.g. the speedgrader format) | |
| How quickly the process had to happen | How crappy MS Teams and WebEx were for synchronous learning | How forgiving students were |
| Student adaptability | Students ability, and or lack of ability, to embrace technology | Ease of transition to solely remote modality |
| Time | Student difficulty in following instructions | level of organization required |
| Students greatly improved their listening and self-diagnosing skills. | How much students craved real interactions. | |
| Students lack of knowldege about how to use technology | How many students wanted to meet for office hours and questions | |
| In the Spring, students knew me and took the remote modality in stride. | A ex-military student found the pandemic to set off his PTSD, and he checked himself into a psychiatric clinic. | In the Fall, few students used remote resources, they felt alone without support. |
| I enjoyed teaching from home | I did not enjoyu not seeing my students' faces durign the course | Exam was stressful for students |
| Graduate student participation was better than expected | | |
| Positive - better accessibility online (course was available to more students) | Negative - Students won't engage with you or each other unless you force them. No one comes to remote office hours. | Student's resource disparities are much more apparent - internet quality, computer quality, household size and living space, childcare |
| How patient students were with  the transition and how motivated many were in the early stages | How quickly student motivation waned when they could not be together in the same space | The level of work that students were able to achieve when they had the motivation to do so |
| sense of isolation | grabbling with using WebEx | range of abilities of students to adapt |
| How well students dealt with the transition | There were certain things that were improved such as the ability for students to share their screens during technology demonstrations | That we were still able to have fun in this environment. |

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| How fun Zoom chats can be | How much time it takes to effectively curate an online course | How stressed out students were, especially in the fall when there was no sense of when the pandemic would end |
| Student-professor relationships weren't as poor as I had heard/expected online. | The huge amount of additional time online teaching takes. | Differences between students in available resources and technology. Some students didn't have computers and the chromebooks the school provided to freshmen were not compatible with software programs I used on site. |
| The "cool" kids were distant, while the students on accomadations and the spectrum were much more engaged. | Students do not understand when they mute the vol. that it does not mute the camera. I have seen 18 men's penises and three sexual encounters - so annoying. They think they have shut the video off but they have not. | The ability to connect with students via video actually makes is safer for students to really talk - i had to be aware of parents being around and make sure I created a context for my comments so that if it were heard by a parent we didn't have a freak out. |
| I like online, open-book and open-note testing on Canvas and will keep that | How much disparity our students have in access to resources to succeed at school | That I actually miss doing class demonstrations with a live audience |
| My FCQ is still very good. | Students love my teaching. | Most of my students remained healthy. |
| loss of motivation | grief | still felt connected to students |
| With more students taking online classes and gaining experience with online classes, they had more feedback to offer me on the structure and facilitation of my online class. (More praises AND more criticism.) | I heard few students complain about having to take all online classes. | |
| It was simpler than expected. | Students responded well. | |
| Students offended by tone. | Students being unable to handle a short group project. | Exercises that worked great in the classroom bombed online. |

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| wasn't as bad as I thought | students were patient | i didn't have to do complicated processes - keeping it simple helped |
| The number of students taking my course from other states or even countries. | | |
| 1. I was surprised how similar online discussions were vs. campus. In fact, some ways online discussions are better. | 2. I was surprised how different it is to build online culture vs. campus course. Not impossible, but way more challenging. | 3. I was surprised how much work it was for me to convert my campus courses and Canvas shells from in-person to remote asynchronous. It's nice to have two versions now though! |
| Students wanted to be checked in on - especially in spring it's like they were standing there waiting to be noticed and were so responsive when contacted. | | |
| How disconnected the students became over Fall 2020; they actually got worse at it | How students just kept their cameras off | How exhausting and complicated managing hyflex cohorts was |
| Flexibility of students | Support of other faculty | Ability if university to transition so quickly |
| Need to see body language | Lectures need the impromptu conversations | Online assignment grading is overwhelming |
| Student engagement in synchronous sections was surprisingly robust using both text chat and video. | | |
| time consuming | less feedback from students | more work |
| Students seemed to spend the time watching the lectures. I was surprised by that. | Students have a difficult time reading course expectations and require a video to describe or they fail to meet the basic requirments of discussion posts and assignments. | |
| Learning Canvas | Zoom actually made us feel more connected | |
| No one turned on a camera. | Students relied on email instead of asking in class. | Quiz scores went way up, exam scores went way down. |

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| I was surprised by how much I personally grieved the transition of going fully remote in Sp 2020. I missed interacting with and seeing the students tremendously. | I was surprised to realize how anticlimactic the end of the semester would feel. | I was surprised still to see how well rapport could be established with students even in a fully remote (online) course. Communicating that you, the faculty member, care about their learning and well-being goes a long way! |
| students didn't know as much as I thought they would about using technologies | how reactive rather than proactive campus was for entire process | that the teaching technology staff could keep up with all our requests when they are such a small unit |
| That I could actually teach online | That most students were still able to learn | I have not decided to retire again (yet!) |
| Better experience as the instructor | students adapted | few glitches |
| how much I missed in person teaching/learning | how much I enjoyed new methods of engagement | how adaptable we have all become |

APPENDIX G

IRB APPROVAL

ASU Knowledge Enterprise Development

EXEMPTION
GRANTED

La Verne Harris

CISA: Interdisciplinary Humanities and Communications

-

LVHarris@asu.ed

u Dear La Verne

Harris:

On 11/30/2020 the ASU IRB reviewed the following protocol:

| Type of Review: | Initial Study |
| ---: | :--- |
| Title: | Course Facilitation During a Time of GlobalPandemic |
| Investigator: | La Verne Harris |
| IRB ID: | STUDY00012987 |
| Funding: | None |
| Grant Title: | None |
| Grant ID: | None |

| Documents Reviewed: | • IRB Email Recruitment Text - DuVal.pdf, Category:Recruitment Materials;<br>• IRB Email Recruitment Text Follow-Up - DuVal.pdf, Category: Recruitment Materials;<br>• IRB Informed Consent - DuVal.pdf, Category:Consent Form;<br>• IRB Research Procedures - DuVal.pdf, Category:Other;<br>• IRB Social Behavioral - DuVal.docx, Category: IRBProtocol;<br>• IRB Survey Instrument - DuVal.pdf, Category:Measures (Survey questions/Interview questions /interview guides/focus group questions); |
| --- | --- |

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/30/2020.

In conducting this protocol you are required to follow the requirements listed in theINVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required.Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator

cc:     Christopher
        DuVal
        Christopher
        DuVal