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# Faculty Perception of the Impact of COVID-19: A Descriptive Case Study Analysis

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**FACULTY PERCEPTION OF THE IMPACT OF COVID-19: A DESCRIPTIVE CASE**

**STUDY ANALYSIS**

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**FACULTY PERCEPTION OF THE IMPACT OF COVID-19: A DESCRIPTIVE CASE STUDY ANALYSIS**

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## ABSTRACT

The purpose of this study was to get an understanding of college faculty experiences and perceptions of student learning outcomes during forced virtual instruction in the spring 2020 semester. The study was limited to faculty who taught at one of the 18 member institutions of the Association of Kentucky Colleges and Universities (AIKCU). Factors such as the discipline being taught were considered. Other factors considered were faculty experience with virtual instruction, the availability of technology for faculty and students, and the support provided to students and faculty amid the transition to virtual instruction. The survey reviewed responses from each AIKCU respondent. A total of 68 people responded to the survey. There were 11 faculty (16.18%) who were not teaching during spring 2020 and 57 (83.82%) who were teaching during the spring 2020 semester, and they moved forward to complete the survey. The 57 respondents did not participate in each question. The results include the number of participants for each question.

This case study also served to add to the limited body of research about faculty experience and perception as it relates to the impact Covid-19 had in the spring 2020 semester when face-to-face instruction transitioned abruptly to Emergency Remote Teaching (ERT). The researcher used a questionnaire for data collection, a non-experimental descriptive approach. The

information collected adds to the growing body of literature on the challenges faced and feelings experienced by faculty during the Covid-19 pandemic. The case study revealed a number of interesting findings. This study supported other research by capturing faculty experiences. A number of faculty expressed a lack of knowledge in virtual instruction, while many also indicated less familiarity with the technology required once ERT began. Faculty struggled with the loss of connectivity with students. At least 50% of the respondents felt academic integrity declined. Additionally, faculty shared an increase in tiredness, more demand on their time, and increased family responsibilities. According to the case study, AICKU faculty, though weary, continued to focus on teaching the course content.

However, faculty perception indicated student learning outcomes were not achieved during the spring 2020 semester. Faculty felt hindered by the loss of hands-on learning, clinical experiences, and field opportunities for students. Finally, this case study provided feedback from faculty regarding academic deficits some students may have moving forward, and how to potentially combat those. Additionally, faculty responses provided new techniques and tools that may be used in the future to supplement virtual learning.

# ACKNOWLEDGEMENTS

On January 24, 2018, Dr. Clarenda Phillips sent me an email and it said, "Hello Traci, Happy New Year! This email is a few days late, but I wanted to check in with you. I will simply ask: Where is God leading you? :-) Blessings, Clarenda."

Dr. Phillips is on the Board of Trustees at Lindsey Wilson College. She and I began a conversation at a soccer game in the fall of 2018. We discussed my apprehension yet desire to start on my doctorate. She may never know, but she was the catalyst for my journey. Dr. Phillips (Clarenda), I am forever grateful.

I first want to thank the administration at Lindsey Wilson College. I have dedicated 31 years of my career to my alma mater. If I worked at Lindsey Wilson another 30 years, I could never repay the life changing impact that amazing place has had on me, my husband, and my children.

I am thankful to Dr. Dean Adams for his continued support and encouragement. He has been far more than a supervisor. He has been a voice of reason, a mentor, and a friend. I have had a number of people rally around me at Lindsey Wilson College and I will be forever grateful.

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I am also so thankful to Dr. Wren Mills. By chance, I took her class as an elective. I would have missed out had I not chosen wisely. I knew I wanted her on my committee a very short time into her class. She is the epitome of a strong woman who cares deeply for her students and pushes them to be the best versions of themselves. If I could have taken 10 classes with her, I would have. I am so grateful our paths crossed, and I am so fortunate she agreed to serve on my committee.

Dr. John and Lucretia Begley were the first to push me out of my comfort zone in an effort to help me grow. Dr. Begley caused a number of growing pains for me, and now he and his wife are like grandparents to me. I will always cherish the fact that they baptized all three of my sons. They both have played a huge role in the person I am today.

Denise Fudge is a huge female mentor to me. She has loved me unconditionally. She has taught me so much about my career and more importantly about myself. I am so thankful for her kind heart, loyalty, and friendship. She has been key in my professional walk but also in my walk in my relationship with my Lord.

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I would have quit this degree before I started if it had not been for Emily Carnall McCullough. She was there for my first of many meltdowns. I will forever be grateful for her

encouragement, love, and support. I promise I will return the favor of support when she starts her doctoral journey.

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I am so grateful to my parents, William T. Luckey, Sr. and Sandra Lone. Neither had a college education, but they valued the importance of an education, and paved a way for all three of their children to pursue their dreams. Both of my parents had a work ethic that most will never have. They made many sacrifices for their family, and I know I would not value an education the way I do or would not have passed it on to my children if it had not been for their inspiration.

So much of my unwillingness to give up will always be credited to my brother, William (Bill) Luckey, Jr. He has been one of my biggest cheerleaders and he has pushed me my entire life. He has encouraged me to work on my doctorate degree for years. He always thought it would be so cool to have two doctors in the family. We both went the route of a doctorate to be utilized in higher education, but we did it! Regardless if it was basketball, the quadratic equation, or paths in higher education, he always instilled in me I could accomplish anything I set my mind to doing.

My life changed when I was 12 years old. Elise Hendrickson Luckey came into my family's life. She is the epitome of a strong woman. She taught me how valuable I was as a woman. She molded me into a strong confident female. She is the most selfless mother and wife

I have ever known. I am so grateful God brought her into my life. I would not be the person I am today without her. She has encouraged me this entire journey.

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That brings me to my oxygen, Willis Pooler. I am so grateful for the life we have built together. You are a professional in your own right, yet you have been such a support to me as I have pursued this degree. You have had to be mom and dad to our boys more than one time. You have prepared meals, washed dishes, read rough drafts, and brought so many flowers to me just to encourage me. Life does not make sense to me without you! I have loved our 30 years together, but forever would not be enough time to spend with you. We share the three most perfect sons. My life has its meaning because of what we have built together. I love you and I am so grateful to you and for you.

Finally, to my boys, Tanner, Jacob, and Lucas, there were so many times I thought about giving up, but I could hear my own voice telling you, "Poolers are not quitters!" There will never be any milestone that will match the joy and accomplishment of becoming your mom has meant to me. I am so proud of the young men you have become. I am especially proud of the quality human beings you are. Please always remember tough times don't last, tough people do. I

believe in all of you, and I love you more than life itself. I am so grateful that Maria and Rikki have joined our family. I hope I will make my grandson, Beckham Trace, proud as well as any future grandchildren.

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**CHAPTER I: INTRODUCTION**

Pandemics have occurred throughout the history of the world. For example, in 1918, the Spanish Flu infected approximately 500 million people worldwide, and claimed 15 million lives (Jarus, 2021). Researchers identified the HIV/AIDS virus in 1981, and it is still active today. HIV/AIDS has taken 25-35 million lives, though medical advancements have allowed many people today to manage HIV/AIDS through medical breakthroughs (Jarus, 2021). The World Health Organization (WHO) declared SARS-CoV-2, also known as Covid-19, a pandemic in 2019; it has claimed 6.12 million lives thus far, and those numbers continue to grow daily worldwide (Worldmeter, 2022). Additionally, Covid-19 invaded all societies, and 479 million cases have been reported and continue (Worldmeter, 2022).

Covid-19 has not spared any areas of society. It has overrun the health field and has pushed many medical professionals to exhaustion (Ornell et al., 2020). Covid-19 forced many people into lockdowns, causing an adjustment to a world of working from home. For some employees, this resulted in furloughs, and in many cases, layoffs. People struggled to maintain a household with the negative economic impact Covid-19 presented.

The lockdown caused school systems to close, and children as young as four were forced into virtual learning, requiring parental assistance. Parents experienced challenges while working from home and caring for children since schools and daycare facilities closed. Covid-19 presented a problem for students' educational achievement in K-12 schooling environments. In addition, students, administrators, and faculty at colleges and universities felt the impact due to the forced move to virtual instruction. The Covid-19 pandemic impacted 1.5 billion students, 90.1% of the total number of higher education learners in the world at that time (Id et al., 2021).

**Statement of the Problem**

In March 2020, the world of higher education that was accustomed to face-to-face instruction and hands-on learning came to a screeching halt. Sars-CoV-2, also known as Covid-19, swept through the world, and colleges and universities faced an unprecedented challenge. Since the pandemic required academic disciplines to transition to virtual instruction, colleges and universities needed to educate students online. Many institutions and professors were not prepared or technologically equipped to make such an abrupt transition (Piotrowski & King, 2020). However, post-secondary faculty made valiant efforts to deliver quality education. More problems arose with some academic disciplines because they were much more challenging to teach and comprehend in a virtual format. In addition, students and professors suddenly lost face-to-face interaction and engagement, along with opportunities for tutoring resources decreasing or becoming non-existent. The faculty were in a position to attempt to produce the same learning outcomes for students in a virtual format as compared to a face-to-face format while only having approximately a week to make the transition. This abrupt transition was quite different than regularly perceived traditional online learning. Educators gave it the name Emergency Remote Teaching (ERT; Hodges & Fowler, 2020).

ERT refers to an unanticipated disruption in a school semester, abrupt suspension of in-person classes, and migrating classes to a remote delivery form that utilizes teleconferencing apps like Zoom, Teams, WebEx, Skype, and tools in a learning management system (LMS) to facilitate teaching and learning. There are crucial differences between ERT and standard, planned online delivery of courses. Online courses are fully designed to utilize the learning tools in the LMS, creating interactions between student and content, student and student, and student

and instructor. ERT involved an ad-hoc migration to finish classes during the Winter semester, starting in January and ending in April 2020 (Ali, 2020, cited in Chen et al., 2022, pp. 513-514).

For the present study, the term virtual learning pertains to the spring 2020 semester when faculty members and students were forced to operate under ERT. Therefore, throughout the study the reader is to understand that "virtual instruction" pertains to ERT unless indicated otherwise; the term "traditional online learning" will be used to identify traditional online courses that utilize the tools in the LMS in non-ERT, planned fashion.

Many colleges and universities utilize traditional online learning with classes intentionally placed in a virtual format with all instruction revolving around that format. Many institutions offer courses and complete online programs as a format option. The pandemic had a profound impact on institutions primarily focused on face-to-face learning. It also impacted educational support opportunities and cultural enrichment events. The abrupt transition from face-to-face learning to virtual instruction revealed that some faculty had not been trained to teach in a virtual format. Some faculty did not have the necessary technology resources in their homes to accommodate the transition, and many were not proficient in the required technological skills (Piotrowski & King, 2020). Faculty became disadvantaged in assessing the students' progress when testing turned virtual. Also, the possibility of cheating increased, and gauging student learning outcomes became more difficult to measure once face-to-face instruction and interaction suddenly stopped (Singer-Freeman et al., 2020).

In the world of higher education, Covid-19 caught several higher education components off guard. Not only were some faculty ill-prepared for the strenuous demands forced upon them by virtual instruction, students also suffered greatly due to the transition. According to Weissman (2020), many students lost their sources of safe shelter, food, and hands-on education as the

shutdown continued throughout the spring semester of 2020. Also, some students did not have the means or the family support to effectively switch to technology-based, virtual education. Covid-19 forced many post-secondary students, regardless of their ages, into pursuing employment. Students faced pursuing their education and providing for family needs. In addition, these students continued adjusting to a new learning format as the Covid-19 lockout of college campuses continued throughout the semester.

Finally, many colleges and universities, public and private, experienced devastating losses in enrollment and revenue and had to resort to layoffs and furloughs (Carlson, 2021). In a time when students and faculty were likely more in need of financial support from their higher education institutions, several colleges and universities found themselves in financial turmoil of their own. They were forced to take drastic measures to keep their doors open.

The simple definition of the problem is that Covid-19 imposed great needs on many students, administrators, and faculty at a time when all were facing uncertainty. The pandemic placed students in a position to try to find the skills necessary for success in a difficult academic situation. It challenged faculty to try new things and determine if the particular learning outcomes for their discipline were even possible to be grasped in a virtual format. Additionally, post-secondary institutions continued to strive to carry out the mission of impacting people's lives.

**Purpose of the Study**

The purpose of this study was to get an understanding of college faculty experiences and perceptions of student learning outcomes during forced virtual instruction in the spring 2020 semester. The study was limited to faculty who taught at one of the 18 member institutions of the Association of Kentucky Colleges and Universities (AIKCU). Factors such as the discipline

being taught were considered. Other factors considered were faculty experience with virtual instruction, the availability of technology for faculty and students, and the support provided to students and faculty amid the transition to virtual instruction.

**Rationale**

The rationale for the study was to identify faculty perceptions about some of the teaching techniques used during spring 2020 to determine if some of the methods may be a viable virtual supplement for future courses. Faculty used or developed new methods out of necessity when courses were abruptly transitioned to virtual instruction.

**Research Questions**

This study was guided by the following research question:

How do faculty describe their experiences due to forced virtual learning caused by Covid-19 in the spring 2020 semester and how did they perceive the impact on student learning outcomes?

The following were sub-questions to address the research question:

    **1.** Did faculty experience with online teaching prior to the abrupt transition to virtual instruction play a role in how well they felt the transition went?

    **2.** How did the shift to undergraduate virtual instruction impact the ability to develop relationships and accessibility between faculty and students in the spring 2020 semester?

    **3.** How did faculty respond to the forced virtual instruction professionally and personally in the spring 2020 semester?

4.          Did the curriculum transition easily and effectively to virtual instruction in the spring 2020 semester?

5.          Was academic integrity maintained during virtual instruction compared to traditional face-to-face instruction during the spring 2020 semester?

6.          How prevalent was online learning in the respondent's particular academic disciplines prior to Covid-19 at AIKCU institutions?

7.          What was the perception of how much support was provided to faculty in the spring 2020 semester as it relates to virtual tools and technology accessibility once virtual instruction was implemented?

8.          Was instructional assistance implemented due to mandated virtual instruction in spring 2020 that will be kept as part of an instructional method post-Covid-19?

**Assumptions**

The following assumptions apply to this study.

1. The researcher assumed that participants responding to the survey answered with candor and to their best ability.

2. The researcher assumed that respondents invested in their responses to provide results to determine if institutions were equipped to provide effective virtual learning for students.

3. The researcher assumed AIKCU schools utilized effective and ineffective styles to teach students to provide equal or surpassed student learning outcomes when compared to face-to-face instruction and student learning outcomes.

4.  The researcher assumed AIKCU faculty valued the feedback from peers to determine if virtual instruction implemented due to forced virtual instruction may be implemented in the future to maximize the opportunity for student learning outcomes to reach their full potential.

**Delimitations of the Study**

Covid-19 has negatively impacted colleges and universities around the world. The impact includes, but is not limited to, loss of enrollment, and loss of revenue from cancellations of sporting and cultural events. Some institutions have also seen a decline in endowment funds. Many articles are available regarding the negative impact Covid-19 has had on students, the administrators of higher education institutions, and faculty. For this study, the researcher invited all the faculty of the 18 AIKCU to participate in completing the survey, providing a format of non-random sampling. It provided an opportunity for all academic disciplines to be represented. Also, it provided an opportunity for feedback from all private colleges and universities so other similar institutions may glean information from the study.

**Limitations of the Study**

The study was limited in several ways. The researcher depended on the chief academic officer of each institution to distribute the online survey. Although 18 members constitute the AIKCU institutions, the institutions vary a great deal in size, location, endowment, program offerings, and operating budgets. Some of the institutions have more established online programs and/or course offerings which presented less of a problem for adaptation to forced virtual instruction and successfully reaching anticipated student learning outcomes. Additionally, self-disclosed data may limit truthfulness. Random sampling may skew responses due to the potential

of one institution providing more responses than others. This would limit the amount of information gained collectively representing the AIKCU faculty opinions across the board.

**Definition of Terms**

    **1. Academic Integrity:** According to the International Center for Academic Integrity (2021), "Academic integrity is the commitment from students, faculty, and staff to demonstrate honest, moral behavior in their academic lives."

    **2. AIKCU:** According to the AIKCU website (2021), AIKCU is an acronym for the Association of Independent Kentucky Colleges and Universities. "Its purpose is to advance the interests of Kentucky's independent, private, nonprofit colleges and universities. All AIKCU member schools are accredited by the Southern Association of Colleges and Schools Commission on Colleges and licensed by the Kentucky Council on Postsecondary Education."

    **3. Asynchronous Learning:** Virtual instruction and information about a subject matter that does not happen together concurrently for all students (Hrastinski, 2008).

    **4. Clinical Experiences:** Clinical Experiences typically involve hands-on experiences in medical facilities, educational settings, and recreation and tourism where students will typically interact directly with people within the setting to have the opportunity for hands-on learning (Ray et al, 2022).

    **5. Endowment**: "University endowments consist of money or other financial assets donated to academic institutions. Charitable donations are the primary source of funds for endowments. Endowment funds support the teaching, research, and public service missions of colleges and universities. University endowments (and all endowments) have a specific legal structure to perpetuate a pool of investments for a specific purpose. Typically,

endowment funds follow a fairly strict set of long-term guidelines that dictate the asset allocation that will yield the targeted return without taking on too much risk. In the case of endowment funds for academic institutions, those funds provide income generated intended to finance a portion of the operating or capital requirements of the institution. In addition to a general university endowment fund, institutions may maintain a number of restricted endowments intended to fund specific areas within the institution, including professorships, scholarships, and fellowships" (Phung, 2021, n.p.).

**6. Faculty Accessibility:** The level to which students can reach faculty for assistance, questions, and relationship building (Slater et al., 2015).

**7. Gap Year:** A gap year, also known as a sabbatical year, is typically a year-long break before or after college/university during which students engage in various educational and developmental activities, such as travel or some type of employment (Erceg, 2020).

**8. Hybrid Instruction:** An instructional method for courses that includes face-to-face instruction for some students and synchronous virtual learning for a portion of the class to provide social distancing (Singh et al., 2021).

**9. Members of AIKCU:** The 18 independent, private nonprofit institutions are:

· Alice Lloyd College, Pippa Passes, KY

· Asbury University, Wilmore, KY

· Bellarmine University, Louisville, KY

· Berea College, Berea, KY

· Brescia University, Owensboro, KY

· Campbellsville University, Campbellsville, KY

· Centre College, Danville, KY

- Georgetown College, Georgetown, KY

- Kentucky Christian University, Grayson, KY

- Kentucky Wesleyan College, Owensboro, KY

- Lindsey Wilson College, Columbia, KY

- Midway University, Midway, KY

- Spalding University, Louisville, KY

- Thomas More University, Crestview Hills, KY

- Transylvania University, Lexington, KY

- Union College, Barbourville, KY

- University of Pikeville, Pikeville, KY

- University of the Cumberlands, Williamsburg, KY

**10. Non-random Sampling:** Non-random sampling is a technique based on factors other than random chance. For this research, the factor was professors representing all academic disciplines who teach at one of the 18 AIKCU institutions (Goodman & Blum, 1996).

**11. Purposeful Sampling:** Purposeful sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which a researcher relies on his or her judgment when choosing members of the population to participate in the study. Purposeful sampling is a non-probability sampling method and it occurs when "elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money" (Black, 2010, n.p.).

**12. Retention:**  Retention is continued enrollment (or degree completion) within the same institution for the fall semesters of a student's first and second year (Whitford, 2021, cited in Kirk-Jenkins & Hughey, 2020).

**13. Student Engagement:**  Refers to the level of interest, curiosity, and motivation students experience based on prompting from professors and engagement offered within the class content and interaction (Sims & Baker, 2020).

**14. Student Learning Outcomes:**  Student learning outcomes (SLOs) are the specific skills, abilities, knowledge, and attitudes faculty expected students to obtain by the end of a particular learning experience. SLOs will likely differ from course to course (Singer-Freeman et al., 2020).

**15. Synchronous Learning:**  Virtual instruction and information about a subject matter that happens concurrently for all students (Hrastinski, 2008).

**16. Teacher Immediacy:** Teacher immediacy is "nonverbal and verbal behaviors, which reduce psychological and/or physical distance between teachers and students" (Christophel & Gorham, 1995, p. 292).

**17. Traditional students:**  Students who are post-secondary graduates under the age of 25, do not have full-time work or family responsibilities, and enroll in college immediately after graduating from high school (.Blankenberger & Williams, 2020).

**18. Traditional online learning:** An instructional format customized for online learning. The course is prepared, planned, designed, implemented, and evaluated for online learning Sangmin-Michelle,L. 2022). .

**19. Tuition Discount Rate:** For this particular research, the tuition discount rate is the total amount of institutional aid awarded to first-time undergraduates subtracted from the printed tuition rate (Carlson, 2021).

**Organization of the Dissertation**

      This dissertation consists of five chapters. Chapter I discusses the impact of the Covid-19 pandemic on students, post-secondary administrators, and faculty when managing the abrupt transition from face-to-face learning to forced virtual instruction. Chapter I consists of an introduction, a statement of the problem, the problem defined, the purpose of the study, the rationale, the assumptions of the study, delimitations of the study, limitations of the study, and the definition of terms.

      Chapter II includes a review of literature and research related to student challenges caused by Covid-19, administrative uncertainty induced by Covid-19, and faculty challenges as they attempted to juggle the impact of Covid-19. Chapter II considers steps taken by administrators and faculty to learn from forced virtual instruction to determine how to make changes in the future to assist student learning more readily as well as supplement face-to-face learning with traditional online learning to maximize the opportunity for students to fully embrace and comprehend student learning outcomes. Additionally, Chapter II includes a review of literature providing similar survey feedback from students and faculty and the impact of Covid-19 as it pertains to the challenges of forced virtual instruction and learning.

      Chapter III describes the use of a mixed methods survey research design for the case study as well as the procedures used to gather and explain the data from the study. The web-based survey generated questions to all AIKCU schools with the assistance of Dr. O, the president of AIKCU. Dr. O served as the liaison between the 18 AIKCU academic officers and the researcher. The academic offers in turn invited faculty of these schools to participate in the study. The researcher shared the survey for a response, and it remained open for two weeks. Dr.

O shared reminders to complete the survey on days five, nine, and twelve before the web survey closed to responses.

Chapter IV provides the research findings and analyses from quantitative questions. Open-ended questions in the survey provided even more opportunities for faculty to express their perceptions of the impact of forced virtual instruction imposed to combat the impact of Covid-19 on student learning outcomes. The open-ended questions served as qualitative questions and allowed faculty to elaborate or comment on issues not approached in the quantitative questions of the survey.

Chapter V provides a discussion of the findings and the implications of the study. Chapter V also provides recommendations for future research. The researcher includes comments and conclusions.

# CHAPTER II: LITERATURE REVIEW

**Introduction**

The purpose of this literature review is to provide a synthesis of research regarding the impact of Covid-19 on students, administrators, and faculty of higher education institutions. The literature review includes survey information collected from students and faculty as it relates to their perceptions of virtual instruction during the spring 2020 semester and its impact on student learning outcomes (SLOs). The literature review is organized as follows:

In the first section, the impact of Covid-19 on higher education students is reviewed. Students faced academic challenges at the onset of Covid-19. Transitioning to virtual instruction and the use and availability of technology were significant problems. However, students also encountered the loss of food and shelter. Many had to pursue employment for living expenses as Covid-19 continued. The literature review includes research that gathered information from approved surveys to gather feedback from college and university students.

Covid-19's impact on college students is echoed by the negative effects the virus had on higher education administrators. In a time when students had great needs, a large number of colleges and universities were faced with declining enrollments, stifled endowments, drastic reductions in tuition rates, unavoidable layoffs, and the inability to help students. At the same time, administrators turned to adaptive leadership to try to survive the unprecedented time. According to Heifetz et al. (2009) Covid-19 presented a new environment where leadership must adapt and empower faculty to make necessary changes to survive in an environment that continued to change rapidly.

The third component of the literature review includes information regarding the faculty experience specifically as it relates to the time frame of the spring 2020 semester. Covid-19

required faculty to work more hours without additional pay and juggle the abrupt transition to forced virtual learning while lacking educational resources. The incorporated literature highlights reviews of perceptions of students and faculty that supported the approach of the present study. The researcher's literature review synthesized faculty perceptions of the impact on student learning outcomes in the spring 2020 semester.

**Impact of Covid-19 on Higher Education Students**

Covid-19 spread across the world with great speed. Entire countries were mandated to go into a lockdown to stifle the spread of the deadly disease. On March 20, 2020, the world of higher education followed suit and transitioned to virtual instruction to delay the spread of the pandemic. In a matter of days, higher education institutions worldwide took unprecedented steps. At a moment's notice, some students had lost their source of shelter, food, and support in their pursuit of a college education. Students, not by choice, left residential halls on college campuses immediately, yet for many, it was their only shelter. Students made a complete pivot to forced virtual instruction, and many were not equipped with the technology and resources to make that change. Several students lacked internet access or did not own personal computers for use off-campus. Many students found that they were forced into employment while still trying to transition to virtual learning.

Amid the pandemic, post-secondary institutions attempted to improve the educational quality for students in an unprecedented situation. Colleges and universities worked with little to no time to gather information from students on their experiences to make improvements to the unforeseen challenges presented by forced virtual instruction. Colleges and universities began to survey students even amid the pandemic to gauge the needs of students.

**Student Survey Responses**

In one analysis, researchers conducted a study at the Oslo Metropolitan University in Oslo, Norway with students in a public health class. Students answered questionnaires at the two-week and 12-week mark of instruction (Almendingen et al., 2021). There were 79 students invited to participate in the study and 37 students joined the research; 20.3% responded at the two-week mark and 26.6% at the 12-week mark (Almendingen et al., 2021). The 37 students who participated responded to surveys, and they also had the opportunity to provide verbal input in planned virtual interest group interviews. Initially, 75% of the students in the study indicated that they felt their lives, in general, had become much harder due to the forced virtual instruction Covid-19 had created. Also, at the two-week mark, 50% of the same students surveyed indicated they felt learning outcomes would be harder to achieve due to the sudden shift to virtual instruction (Almendingen, et al., 2021). Twelve weeks into the same study, responses took an interesting turn as 57% indicated life had become more difficult due to the abrupt change to virtual instruction, possibly indicating students had time for adjustment. At the 12-week mark, 71% of the total number of students ($n=37$) indicated they felt learning outcomes were going to be much harder to achieve as compared to traditional face-to-face instruction (Almendingen, et al., 2021). The findings of this study were beneficial from both the survey and the interviews. The study gathered input from students suggesting that recorded lectures should have shorter durations. Lectures stretching out more than 45 minutes lost students' attention, and therefore their effectiveness, in the respondents' opinions. The respondents indicated that the absence of interaction with classmates was a disadvantage and contributed to a lack of motivation (Almendingen, et al., 2021). Finally, some of the students reported inadequate technology and internet service in their homes, which magnified the frustration of virtual instruction. The results

painted a picture of the students' perception of this particular study as Covid-19 created a great disadvantage to learning and living for college students unaccustomed to virtual learning (Almendingen et al., 2021).

**Students Identified as Struggling by Faculty**

Other research began to take a different approach and focused on the students whom faculty identified as struggling. This led to additional research opportunities. Singer-Freeman et al. (2020) took the approach of already assuming the students were struggling from the sudden transition from face-to-face learning compared to virtual instruction based on faculty perception. The University of North Carolina at Charlotte developed and administered a survey to 4,026 students. Faculty identified these students as exhibiting the most difficulty with the transition to virtual instruction based on performance and comprehension. "The survey had a 6.7% response rate which resulted in 269 students" (Singer-Freeman et al., 2020, p. 10). The findings, based on survey responses, indicated that 56% of students felt that faculty were not familiar with the technology required to switch to virtual instruction (Singer-Freeman et al., 2020). More than half of the students, 52%, felt frustration due to face-to-face learning lectures and activities that continued to be utilized but did not fit the virtual format (Singer-Freeman et al., 2020). Students expressed frustration with the lack of explanation for the adjustment in the curriculum and how it was presented once the sudden switch was made to virtual instruction (Singer-Freeman et al., 2020). The students indicated that 47% struggled with synchronous classes and their availability. Some literature reviewed the academic hardship students were facing. However, other surveys allowed students to voice the mental anguish they experienced due to Covid-19 and all the changes that came with it.

**Emotional and Motivational Toll**

The University of North Carolina Charlotte study by Singer-Freeman et al. considered future needs students may have in virtual learning. Responses to the survey indicated that 65% of the respondents felt additional instructor support was required for future success. Students (61%) indicated a need for guidance and instruction on how to be a better virtual learner (Singer-Freeman et al., 2020). A resounding 68% of students admitted they lacked motivation to continue their coursework once classes switched to a virtual format. This lack of motivation reported in surveys created a path for research to evaluate students' frames of mind regarding success in the virtual classroom.

The lack of motivation to continue coursework once the virtual format was implemented likely played a role in the Daniels et al. (2021) study. Daniels et al. (2021) used a self-created, single survey and collected observations after the initial lockdown to gauge students' perceptions of academic success and cheating based on pre-Covid-19 and amid Covid-19. A total of 98 students completed the survey. The survey's purpose was to assess "the students' motivation, engagement and perceptions of success and cheating under two learning conditions, namely traditional and remote learning" (Daniels et al., 2021, p. 299). The responses from the survey indicated that students felt virtual learning decreased their motivation, achievement goals, engagement, and perceptions of success compared to traditional face-to-face learning (Daniels et al., 2021). In addition, student responses of the 98 participants indicated a concern for an increase in cheating once instruction was delivered virtually, particularly in larger classes (Daniels et al., 2021).

As college and university faculty went into survival mode to educate students as effectively as possible, researchers continued to be intrigued by the lessons learned and the

voices of the students who participated in the abrupt transition to forced virtual instruction. Researchers utilized the March 2020 time frame to not only gather data on processes that were not going well, but also as a time to collect suggestions and ideas to utilize in future instruction.

Conrad et al., (2021) conducted a mixed method design study to gain information regarding the students' perceptions of the sudden transition to virtual learning due to Covid-19. The research was conducted at a major university in Canada, and a survey was the instrument of choice. The survey consisted of 32 questions, on a 7-point Likert scale with (1) indicating "totally disagree" and (7) indicating "totally agree". The timing of this research allowed for very raw feelings as the survey was distributed at the seven- and eight-month mark after the abrupt transition to online in March 2020 (Conrad et al., 2021). Conrad et al. (2021), after omitting incomplete surveys, collected 240 responses; 138 students responded to the open-ended questions. The results of the research indicated students felt information overload, communication overload, a perceived technology skill requirement, lack of instructor availability, lack of instructor virtual knowledge, and inability to communicate face-to-face with faculty and peers. These components played a role in the students' perceptions of how difficult the immediate transition to virtual instruction was in March 2020 (Conrad et al., 2021). Several surveys painted a picture of great frustration for students due to too much demand and faculty inadequacies. However, other students surveyed reported more favorable experiences with virtual instruction than traditional face-to-face instruction. Other research connected with the importance of the faculty mentality. Some surveys indicated even when students struggled, if their instructor was more invested and communicated regularly, students still had a sense of surviving the challenge of the abrupt virtual instruction. Faculty availability, attitude, and

aptitude as it relates to how students perceived the transition to forced virtual instruction continued to be a theme in other surveys.

Davis et al. (2022) surveyed more than 450 undergraduate students with a mixed methods survey. The survey consisted of 17 Likert scale responses to gather the students' agreement level to positive and negative comments regarding virtual instruction. The open-ended questions allowed students to express concerns and feelings more effectively. Students volunteered to complete the survey, but did not gain any benefit by participating. Davis et al. (2022), reported a strong participation rate to open-ended questions as 90% of the respondents answered what they liked about virtual learning, 94% indicated what they did not like about virtual learning, and 69% provided additional comments about the virtual learning experience. The students' responses revealed three prominent challenges for virtual learning. Those challenges were the learning environment, motivation, and learning effectiveness (Davis et al., 2022). According to Davis et al. (2022), the learning environment included distractions students faced since they were no longer in a classroom setting, which also negatively impacted focus. Students indicated the need for engagement with other students and their professors to have a stronger feeling of community. Davis et al. (2022) reported students indicated the lack of community and access to others caused a decrease in motivation which impeded learning. Finally, the third prominent challenge of virtual learning concluded from the study indicated that learning effectiveness was a real concern. Students shared that it was hard to learn, group projects were nearly impossible, and responses also shared a feeling of being completely lost and finding it impossible to comprehend the material in the virtual format provided (Davis et al., 2022). Another significant point made from student responses was the concern about the lack of faculty preparedness. Students perceived that most of the faculty in this particular study had never taught online and did not

have a clear understanding of how to utilize virtual instruction effectively. Students experienced a significant increase in busy work to make up for faculty inexperience. Students felt like they were not gaining more understanding but were simply being given tasks to take up time (Davis et al., 2022). Surveys revealed concerns expressed by students, but they also gave a voice to recommended virtual instruction adjustments. In some cases, students made suggestions to keep some changes when classes returned to some form of normalcy.

Reid et al. (2022) conducted research at a large, urban, public university in the mid-Atlantic United States. The participants totaled 157, and the campus represented a racially diverse population of more than 54%, according to the National Center of Educational Statistics (NCES) (2019). The study was a qualitative analysis to gain a better understanding of the undergraduates' reaction to the transition to virtual instruction during mid-semester. This study considered the students' sense of belonging after the transition was made to virtual instruction. The research also evaluated the impact students' felt from instructor support after the change in instruction. The study included the impact on student workload due to the transition to virtual learning. Finally, the research considered if the change in learning played a role in how the students in the study responded to the transition in learning that occurred due to the Covid-19 lockdown (Reid et al., 2022). The responses revealed that students found a mixed methods approach to teaching to be more taxing in this setting, and it was preferred less than synchronous or asynchronous instruction. Students valued the attentiveness of faculty. It was important to have regular correspondence, consistent feedback via emails and discussion boards as well as clear direction on expectations. When students had clear communication, they self-reportedly took more responsibility for coursework and operated more independently on assignments.

Conversely, students expressed frustration when they felt their instructor had given up based on a lack of communication and interaction during the Covid-19 shutdown (Reid et al., 2022). The increase in communication and adequate adjustments by faculty proved to be advantageous to learning in some studies. Other surveys indicated positive results from virtual instruction based on the student's perceptions.

Chen et al. (2022) conducted a study at "the University of Guelph-Humber, a close-knit mid-sized university with around 5000 students in Toronto, Canada" (p.515). Respondents consisted of 122 students who experienced the abrupt transition in learning due to Covid-19. The students participating represented an almost equal number of students who were first through fourth-year students. Students indicated that reviewing recordings of provided lectures was beneficial to learning. However, the students from this study indicated they did not feel cheating was an issue unless the student was a person who would likely attempt to cheat in a seated format. March through May of 2020, these students found themselves enjoying the freedom, flexibility, self-efficacy in learning, and the new form of connecting with faculty that virtual instruction presented (Chen et al., 2022).

In summary, Covid-19 displaced college and university students from their environment. The situation left many students feeling discouraged, overwhelmed, and unmotivated. Several students felt that learning outcomes became more difficult to accomplish due to the lack of technology and the ill-preparedness of faculty to adjust to virtual learning. The total disruption caused by the mandatory transition to virtual instruction increased the difficulty to learn due to the change in what students perceived as normal. However, some research revealed positives that evolved from virtual instruction as well. In some cases, students ultimately preferred the virtual instruction format over traditional face-to-face instruction. In all cases, the feedback revolved

around the faculty's willingness to adjust instruction methods and to communicate clearly and effectively.

**Impact of Covid-19 on Higher Education Administrators**

As research and students' feedback informed the world of higher education concerning the challenges students faced and continue to face, colleges and universities dealt with growing concerns. Many students and faculty still felt there was a lack of communication even though many post-secondary institutions moved quickly to adjust once the shutdown occurred. Unfortunately, the pandemic was unlike anything higher education administrators had faced before. The situation created such rapid changes, it was nearly impossible to keep everyone informed; however, most colleges and universities provided any information available (Slager et al., 2021). Initially, students, administrators, and faculty were all making adjustments that were assumed to be short-term. The need for adaptive leadership and the empowerment of all parties involved had never been in greater need due to the ever-changing environment caused by Covid-19. Although a number of leadership styles exist, administrators needed to be adaptive in their approach, compassion, and nurturing to the people reporting to them (McKimm, J. et al., 2023). During such a critical time, the importance of empowering others and working together was likely never more important.

**Loss of Revenue**

Garner (2020) shared in the *Chronicle of Higher Education* that higher education leaders at the onset of Covid assumed it would be a temporary adjustment. However, 24 months later, many colleges and universities had been crippled. Several institutions saw a decline in enrollment and revenue. Schools lost additional revenue by providing room and board refunds. Many institutions depend on revenue from athletic events, cultural events, and social events to

contribute to their operating budgets. However, the public could not attend most of these events. Therefore, colleges and universities canceled or closed the events to the public (Garner, 2020). Garner (2020) reported, "the University of Wisconsin system, lost $212 million through the summer semester. George Washington University lost $38 million through the end of the 2020 fiscal year" (n.p.). Furthermore, while numbers like this are staggering due to a decline in enrollment and lost revenue from other sources, Garner (2020) shared that the colleges and universities that have lost the most money and are suffering the most are small private institutions and regional public universities. This resulted in drastic measures, including extreme cuts in operating budgets and layoffs across the board, including faculty. One of the most stifling reports came from "Ithaca College, a private institution in New York, which faced a $30-million budget gap due in part to a 16 percent drop in enrollment. As a result, the school decided to lay off 25% of its 547 faculty members" (Garner, 2020, n.p.). Equally important is the great likelihood that many other institutions already are or will begin hemorrhaging, like Ithaca College, which may mean the future demise of many colleges and universities across the country.

In the article *Colleges Grapple with Grim Financial Realities,* Carlson (2021) confirmed that many colleges have lost cash flow due to canceled athletic and other events, housing refunds, and enrollment declines. However, the survey *The Chronicle of Higher Education* conducted revealed that many colleges, mostly private institutions, chose to reduce their tuition rate in many cases by more than 50%, which devastated many of the smaller institutions (Carlson, 2021). *The Chronicle of Higher Education* shared that one college offered a tuition discount rate of 78%. In essence, even if enrollment did not decline as significantly for some of

these schools, the discount tuition rate had a direct impact on cash flow, resulting in layoffs, and an immediate need to reduce expenses (Carlson, 2021).

Blankenberger and Williams (2020) shared that forced virtual learning created difficulty in accurately assessing student progress and student learning outcomes. However, more than ever, colleges and universities must provide proof of integrity and be accountable as federal and state entities evaluate and regulate funding based on an assessment of these things (Blankenberger & Williams, 2020).

**Decline in Enrollment**

Blankenberger and Williams (2020) reported that colleges and universities are anticipating a decline in enrollment for new and returning students. In many cases, the decline might be sharp. Institutions will face several challenges. Students desiring to continue in a virtual learning format after Covid-19 would require higher education institutions to adjust and add additional virtual courses and programs or face the risk of becoming obsolete. Blankenberger and Williams (2020) indicated that colleges and universities will have to be willing to invest financial resources into implementing more virtual offerings while maintaining the face-to-face education that traditional students still tend to prefer.

**Increased Disadvantage for Students with Greater Needs**

Blankenberger and Williams (2020) added that a decline in enrollment creates a situation where colleges and universities will need flexibility. In addition to enriching virtual learning options, students will likely require additional academic support programs and financial support as many families and students lose income. Additionally, while colleges and universities need to maintain or increase enrollment more than ever before, many institutions are struggling financially far more than before the onset of Covid-19 (Blankenberger & Williams, 2020).

Institutions have lost revenue and incurred increased expenses to upgrade technology and resources to maximize their students' opportunities for success. To add additional obstacles to the situation, as colleges and universities add more virtual learning options and full program options, Blankenberger and Williams (2020) indicated that adding more virtual curricula creates disadvantages for minority students and students of lower socioeconomic status.

For example, Blankenberger and Williams (2020) documented from the National Center for Educational Statistics (NCES) data that "first-time postsecondary students in the 2003-2004 class revealed that 36.4 percent of White students achieved a baccalaureate degree within 6 years compared to just 16.7 percent of Black students and 16.9 percent of Hispanic students. It was suggested that potential contributors to this disadvantage may be a combination of family background, lack of opportunity to attend a more rigorous high school, and inexperienced teachers" (p. 414).

Many colleges and universities strive to close the gap between students who have been afforded greater educational opportunities compared to those students who have not had the same opportunities. However, with the anticipated decline in enrollment and revenue, many higher education institutions may feel even more inadequate when it comes to providing academic and financial support for those students who have greater need in both areas. This lack of support will likely result in lower student retention for institutions. It will be an additional hit to revenue, resulting in less opportunity to provide additional support for disadvantaged students and advantaged students alike. "Institutions reported fall 2019 to fall 2020 tuition revenues decline ranges from $1.1 million to $13.5 million and room and board declined from $4.3 million to $28 million" (Whitford, 2021, cited in Kirk-Jenkins & Hughey, 2020).

Compounding the trouble facing institutions of higher education, many strong academic students made the decision to take a gap year (Garner, 2020). According to the *Chronicle of Higher Education*, typically the students who pursue the gap year are those students who are stronger academically, come from more college-educated homes, and are more financially sound (Garner, 2020). The increase in students taking a gap-year creates a different dynamic for colleges and universities that trickles down to the faculty and to classroom experiences. At the same time, many more affluent students have decided to wait on pursuing a college education, which leaves many lower-income students, minorities, or underprepared students (Garner, 2020). The *Chronicle of Higher Education* reported, according to according to "Wil Del Pilar, vice president for higher education policy and practice at the Education Trust, a nonprofit advocacy group," students who are affluent and take a gap year are more likely to return to college after a break because they are not hindered by lack of technology or other resources and their return is easily accommodated. However, low-income students often lack utilization or access to technology, therefore they never return to their educational pursuits (Garner, 2020, n.p.). With the financial disadvantages for institutions and the likelihood of more college-prepared affluent students taking a gap year, there is no doubt college and university faculty have felt the brunt of the pandemic when it comes to student learning outcomes and trying to reach students effectively from a distance.

To summarize, when students required more academic, financial, and mental support, many colleges and universities were not able to support their students. The decline in endowments and enrollments coupled with unwanted layoffs placed higher education institutions in a position of simply trying to survive.

**Impact of Covid-19 on Faculty**

Before Covid-19, researchers were already evaluating faculty perceptions of the effectiveness of online learning as compared to face-to-face instruction. For example, Wingo et al. (2017) examined factors that promote faculty acceptance of virtual instruction. Findings revealed that faculty valued the opportunity to gain experience with online education, and faculty greatly appreciated providing mentoring, training, support, and acknowledgment of efforts (Wingo et al., 2017).

**Faculty Survey Revealed Obstacles to Student Learning Outcomes**

Covid-19 impacted faculty, as well as students, when it hit so abruptly. The opportunity for mentoring, support, and acknowledgment of efforts was not available for most faculty to give to students. Researchers discovered that immediate feedback proved to be most vital. Daniels et al. (2021) designed a study that took place and provided feedback amid the requirement to go completely virtual in spring 2020. This was at least viable information for a limited number of faculty as it pertained to keeping students engaged while providing information virtually. One of the survey's main purposes was to point out obstacles to student learning outcomes for future instruction if courses were to remain virtual for any amount of time. In the Daniels et al. (2021) study, students self-reported their feelings regarding face-to-face learning compared to virtual learning within the same class. Students indicated that once virtual learning was forced upon them, "achievement goals, engagement, and perception of success all significantly decreased, while their perception of cheating increased" (Daniels et al., 2021, p. 302).

Additionally, students shared a stronger feeling of achievement and engagement with less cheating in a face-to-face format. Students reported the importance of achieving goals being the focus of the discipline regardless of the mode of instruction (Daniels et al., 2021). Feedback from

college students subjected to forced virtual instruction is valuable, but colleges and universities may glean information from the students who went through similar circumstances as high school students on the verge of becoming college freshmen.

**Loss of Connection**

At South Dakota State University, the institution recognized that the graduating high school class of 2020 did not experience their senior prom. Canceled events resulted in no athletic competitions, virtual graduations, or one person graduated at a time. Kadlecek et al. (2021) constructed a survey to gather information from students impacted by Covid-19 during their senior year of high school. These students experienced the same setbacks as college students. The survey information led the researchers to reach for support for previous work from Costa and Mims (2020). The survey revealed students were craving connectedness and clear communication from their professors (Celik et al., 2020). Students wanted to have relationships and open communication with faculty. The students thrived in an environment where faculty-initiated contact with the students and regular communication outside the virtual course occurred. This additional contact indicated faculty success in adjusting to forced virtual learning. Christensen and Menzel's (1998) longstanding study indicates that "positive relationships between teacher immediacy and student learning outcomes exist." The work of Kadlecek et al. (2021) resembled the findings of Christensen and Menzel. It underscores the importance of creating regular communication, connectedness, and immediacy to maximize the opportunity for mastered student learning outcomes. Now more than ever, with the negative impact of Covid-19, the faculty-student relationship is at the forefront of student success and learning outcomes.

As much as faculty-student connectedness is critical, in some cases, for student learning outcomes, the value of clinicals, practicums, and internships is also invaluable in the learning

outcomes process. The abrupt turn to virtual instruction presented a separate set of problems for those college students who required hands-on experience in their chosen career setting to grasp student learning outcomes at the maximum level. For faculty members leading clinical courses, the virtual format presented an even bigger problem (Mariani et al., 2020).

**Loss of Hands-on Learning**

For example, Barton (2020) surveyed faculty to determine their perception of Covid-19's impact on-field instruction and virtual teaching alternatives. The researcher initially emailed 2,000 faculty members whose disciplines required field experience, such as basic biological, environmental, and geophysical sciences (Barton, 2020). Ultimately, Barton narrowed the research to 117 faculty members. The web platform Survey Monkey collected responses. The research represented 70 different institutions, public and private, and larger and smaller institutions were all included (Barton, 2020). The survey consisted of 22 questions, with five collecting information on the intention to teach and discipline. The remaining 17 questions inquired about the respondents' typical plan for field instruction, and their perception of the impact Covid-19 had on traditional instruction and the modifications Covid-19 caused to instruction methods (Barton, 2020).

The results from Barton's (2020) research indicated that faculty perceived a negative impact due to the lack of field instruction and the attempts made to replace field instruction. Faculty indicated that the modifications to traditional field experiences caused a decline or complete void in student learning outcomes. Faculty indicated virtual instruction intended to substitute for field instruction was less student-centered and provided little to no equivalency to traditional field experiences (Barton, 2020).

Faculty also had the opportunity to respond to open-ended questions regarding virtual instruction related to field instruction. Twenty-seven faculty members added concern regarding the hazard of sending students out into the field without guidance, potentially creating a situation for the student to be harmed. In addition, faculty expressed that virtual instruction would likely create a disadvantage and more risk for students representing a lower socioeconomic class due to the availability of resources (Barton, 2020). Barton (2020) indicated that faculty expressed consideration of these inequities should play a role in designing inclusive online instruction in the future, including field experiences if necessary. Other faculty also made necessary changes regarding clinical and field experience as the courses were in session.

Fitzpatrick College of Nursing (FCN) faced the challenge of making sure nursing students at all levels, including bachelor's, master's, and doctoral students, still met course objectives and student learning outcomes (Mariani et al., 2020). With all medical facilities closed to clinical visitors, the faculty had to think quickly about ensuring students were still well prepared and met the necessary learning objectives. FCN typically provided a virtual format for clinicals that constituted 10% of clinical time. FCN faculty moved quickly creating meaningful clinical experiences with simulation sessions via Zoom meetings for the nursing students. Additionally, medical professionals in several facilities that FCN partnered with pre-pandemic were willing to zoom in with FCN students to enhance clinical opportunities (Mariana et al., 2020). Finally, FCN adjusted grading to a Satisfactory/Unsatisfactory grading system. The nursing faculty did not give students options on clinical grading because they felt the change to Satisfactory (S)/ Unsatisfactory (U) would make the grading more equitable. While many students disagreed with this grading option, it proved to be favorable (Mariana, et al., 2020). As proof of the success of the proactive steps taken by the FCN nursing faculty, "to date, FCN has a

100% first-time pass rate on the NCLEX for May 2020 graduates, with an overall pass rate of 97% for all graduates from May to August 2020" (Mariana et al., 2020, n.p.).

**Stress on Faculty**

Just as students faced additional stress as they adjusted to new learning environments and expectations, faculty faced new challenges also. Many people failed to consider all the adjustments that had to be made to course instruction with the weight of student learning outcomes and accomplishments at stake for faculty. Kirk-Jenkins and Hughey (2020) shared additional viewpoints on behalf of the faculty. Many faculty members questioned their capabilities and felt inadequate due to the abrupt transition to virtual learning. Faculty attempted to do more with less and to pivot as students adjusted. Faculty were challenged to deliver a quality educational experience for students in a format that was foreign to many. In addition, while many students, due to the impact of Covid-19, struggled with doing coursework in an unknown format, many students were faced with additional family responsibilities. This included small children also learning at home, and also a loss of income in the family unit. In some cases, students tried to work, juggle family responsibilities, and earn college credit (Kirk-Jenkins & Hughey, 2020). However, few people considered that many faculty members were dealing with the same challenges. Many faculty were now trying to teach in an unknown format, take care of small children who could no longer go to daycare or school, and provide needs for the home and others (Flaherty, 2020 cited in Kirk-Jenkins & Hughey, 2020). Additionally, Kirk-Jenkins and Hughey (2020) pointed out that administrators were struggling from the impacts of Covid-19 due to lack of enrollment, loss of donor giving, and lack of revenue. This shortfall trickled down to many faculty finding themselves teaching more, but making less, suffering a decrease in benefits,

and postponement of tenure, which could result in a loss of as much as "$18,000 over a 30-year career" (Khamis-Dakawar & Hiller, 2020, cited in Kirk-Jenkins & Hughey, 2020.)

Covid-19 impacted many aspects of higher education. Faculty who had little or no experience with online instruction were no exception. Those faculty members who lacked adequate training, accessibility to technology, and no plan to transition from face-to-face learning to virtual instruction faced great difficulty. Faculty lost all personal contact with students, therefore impacting faculty-student relationships negatively. Faculty were placed in the position to work from home while also caring for their children. Finally, many faculty, while trying to continue to provide a quality education, found themselves working more and earning less salary, leading to frustration. Faculty continued to persevere in attempting to instruct students, to gain knowledge of techniques to use in the future, to manage new difficulties and to search for solutions. One of the ways faculty tried to make the transition as successful as possible was to predict how students were feeling about the abrupt adjustment. Many faculty members also tried to determine what students liked and disliked about the new techniques being implemented in response to the restrictions Covid-19 created.

Kaczmarek et al. (2020) surveyed the faculty and students enrolled in the Harvard School of Dental Medicine to compare student and faculty perceptions of virtual learning in the Covid-19 era. Thirty-nine students responded, representing a 100% response rate, and 74% of faculty responded to the survey representing 29 faculty members (Kaczmarek et al., 2020). According to the results, faculty and students both reported negative perceptions, but the percentages differed (Kaczmarek et al. 2020). Faculty perception of student learning worsened by 52%, while 70% of students responded to perceived worsened student learning. While 55% of faculty and 54% of students perceived worsened student engagement and participation. A resounding 72% of

students and 52% of faculty indicated a perceived increase in student burnout. Kaczmarek et al. (2020) "reported feedback from students (77%) and faculty (69%) that recorded lectures are the optimal virtual class format compared to prerecorded or nonrecorded" (p.1197). However, faculty (82%) and students (70%) indicated much more comfort with nonrecorded lectures. This finding can potentially serve as a guide to instructional techniques for future traditional online instruction (Kaczmarek et al., 2020).

Oliveira et al. (2021) conducted a qualitative research study that included in-depth and semi-structured interviews of 20 student responses and ten faculty responses about each group's experience regarding emergency remote instruction during Covid-19. Faculty's more significant responses consisted of both negative and positive responses. Faculty had a concern about student honesty when testing. Faculty expressed frustration about developing their form of new testing methods to attempt to reduce fraudulent actions by students when testing. The research by Oliveira et al. (2021) indicated that faculty felt there was a loss in student-faculty interaction that creates stronger relationships due to students turning cameras off or poor internet connections, causing a loss in reading facial expressions. Faculty also expressed extreme physical and mental exhaustion from the lack of preparedness and training necessary for virtual instruction due to the uncontrollable circumstances.

Oliveira et al. (2021) also reported that faculty valued the ability to reach students in a virtual format to continue with the progress of class content rather than shutting down all instruction. Faculty also valued increased interaction with students outside of scheduled online class time. Faculty were able to recognize the potential for new content development and delivery in the future. Covid-19 created havoc in the realm of higher education for many, but it

was beneficial to learn both negatives and positives from the people who experienced the disruptions and adjustments firsthand.

Lee et al., (2021) conducted a study of faculty perceptions of the abrupt move from face-to-face to virtual instruction in March 2020. The study collected information via an anonymous online survey and case study interviews (Lee et al., 2021). The researchers distributed the survey to 1,407 faculty members, and 266 responded to the survey. Once incomplete responses were eliminated, the study had 249 participants (Lee et al., 2021). "The researchers achieved face validity by first reviewing the survey items with a panel of experts, including a senior faculty member. The survey consisted of 20 questions with 18 closed-ended and two open-ended items" (Lee et al., 2021, p. 262). The responses to the survey administered by Lee et al. (2021) reported that "243 respondents indicated they had some issues related to the difficulty of remote learning" (p. 267). The faculty responses included difficulties with internet connectivity, technical difficulties, teaching equipment issues, difficulty reaching students in different time zones, lack of knowledge to function effectively online, time constraints, personal and emotional challenges, and a requirement for additional time and effort in an already demanding environment (Lee et al., 2021). Faculty responses indicated "a struggle with facilitating group projects or collaborative learning, particularly for hands-on learning components" (Lee et al., 2021, p. 268). The Lee et al. (2021) survey demonstrated the faculty perception that limited access to labs or studios was a particular problem regarding learning objectives. However, not all faculty feedback indicated a disadvantage to the virtual instruction format.

Sims and Baker (2020) conducted a case study to evaluate the faculty perceptions regarding the quick transition of courses to a virtual format in the spring of 2020. The study consisted of "two sections. One section had 28 demographic questions, and section two had 28

statements rated on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7)" (pp. 337). The case study conducted at a Midwestern master's level university had 183 faculty responses to the survey. It indicated no significant difference between the performance of a student with face-to-face content compared to a student with virtual content. However, the survey revealed faculty members with previous virtual instruction experience indicated greater ease to the urgent transition that occurred in March 2020 (Sims & Baker, 2020). This included creating online assignments, knowledge of technology, managing grades and time management skills. The surveyed faculty expressed concern regarding the additional demands placed on faculty when teaching a course online as it pertains to designing and converting material from face-to-face instruction to virtual instruction also potentially impacting student learning (Sims & Baker, 2020). Sims and Baker (2020) reported that instructors already familiar with virtual instruction approaches and technology perceived no difference in instruction or student learning outcomes. According to the research of Sims and Baker (2020) age, gender, and tenure status of faculty was found to be significant as it pertains to student engagement and performance. The perceptions of faculty members younger than 45-years of age differed from faculty above 45-years of age. Younger faculty expressed their perception that the sudden virtual learning negatively impacted the quality of the delivery of the information and potentially the study grade due to the loss of face-to-face interaction. Male faculty felt more strongly that the loss of peer interaction increased the chance for negatively impacted grades.

Sims and Baker (2020) shared that tenured faculty, compared to nontenured faculty, felt that the abrupt transition from face-to-face to virtual learning impacted student engagement and increased the chances for a decline in grades. According to Sims and Baker (2020), overall,

faculty perceptions of students' engagement and performance declined during the Covid-19 pandemic, although faculty also expressed several positives.

Other previous research on faculty perceptions also indicated positive results. Chen et al. (2022) researched the instructors' perspective on the abrupt transition to virtual courses due to Covid-19. The faculty members were instructors for The University of Guelph-Humber and participated in mixed methods research with a 30-minute questionnaire on Qualtrics. The questions were in the form of multiple-choice, ranking, and short answers. The study had 71 instructors participate; 90% of the respondents had taught before Covid -19 and 10% had not (Chen et al., 2022). The participating faculty who had taught the same course before Covid-19 reported making changes to the curriculum of the class once the virtual transition occurred. The participating faculty making moderate changes were 51%, significant changes 27%, minor changes 16%, and no change 6%. Faculty and students reported so many positive experiences from the adjustments, which in their opinions, enhanced learning, that the University implemented more online options the following semester, and those courses filled more quickly than traditional face-to-face offerings (Chen et al., 2022). Faculty who had some experience with the traditional online format indicated more positive responses than those who did not. However, inexperience, age, and discomfort with technology proved problematic for some faculty.

Casacchia et al. (2021) conducted "a cross-sectional online anonymous survey design using a convenience sample in the period July 15-September 30, 2020, research at the University of L'Aquila" (p. 3). Ninety-seven faculty participated in the research, more than half of the participants were women, and 40% represented the age group of 60-69 years (Casacchia et al., 2021). Results of the anonymous survey revealed that 85 of the 97 faculty members were teaching during the abrupt transition to virtual instruction due to Covid-19. The quality of the

connection between students and faculty was determined to be the most problematic issue (Casacchia et al., 2021). Faculty shared their perceptions that adjustment in the delivery, time requirement, greater commitment to structure, and increased effort in supervising remote testing and writings are most problematic in the area of delivery. Faculty (64.7%) expressed some discomfort with recording lectures and overall discomfort with teaching in front of cameras as opposed to being face-to-face. More than 80% expressed frustration due to a loss of direct eye contact and face-to-face interaction. While "35.3% of faculty indicated organizing laboratory professional activities was impossible, especially by professors of medical and health professional courses" (Casacchia et al., 2021, p. 8). Faculty expressed concern for students' ability to provide undivided attention to coursework in their home environment. The research provided an opportunity for faculty to express the emotional toll forced virtual instruction took on them. Of the 97 participants, more than 70% indicated a loss of satisfaction from things previously done, a loss of interest in others, and an increase in irritability (Casacchia et al., 2021). However, the faculty also expressed positives. Nearly 45% of the respondents appreciated the reduced travel time to campus and gleaned greater respect for lesson times. Twenty-two percent of responses expressed an appreciation for the collaboration between faculty created by ERT. Only 8.2% could not indicate any positives from the transition experienced from face-to-face instruction to virtual instruction.

Although the Covid-19 pandemic is relatively new compared to other historical pandemics, information regarding the impact of Covid-19 is increasing daily. Regarding higher education and the impact of Covid-19, researchers began by reporting observations caused by the pandemic.

**Summary**

This literature review highlights an insight into students' struggles due to the negative impact of Covid-19. For so many, the pandemic made learning more difficult; students lost access to technology as well as traditional in-person learning experiences. In addition, they lost a place to live, to be nourished, and to feel safe. Studies consisting of surveys completed by students revealed the concerns more effectively than articles speculating on college students' feelings and emotions. When students began to be surveyed and could voice the impact of Covid-19 on all aspects of their lives, it gave others a better understanding of how the lack of learning opportunities negatively impacted students.

Post-secondary administrators dealt with impacts of Covid-19 observable by the public such as the decline in enrollments, the refunding of room and board fees, the cancelation of athletic events, the decrease in endowment funds, and the unavoidable furloughs and layoffs. Many colleges and universities are in peril and will continue to be disadvantaged due to the loss of revenue. Higher education institutions may feel the impact even more than the students and faculty for years to come as many institutions will likely struggle to remain open.

Finally, faculty were equally impacted as students and administrators and bore most of the brunt of adjusting to virtual instruction regardless of preparedness. Faculty completed surveys that gave them a voice to express concerns regarding SLOs, student engagement, their inadequacies related to technology, and the inability to engage with students as effectively as in the pre-pandemic era. Surveys gave voice to faculty frustrations. The surveys also allowed faculty to share some of the positive results that came from the transition to virtual teaching and learning.

This literature review provided information on three distinct groups directly impacted by Covid-19 in the world of higher education. The utilization of surveys approved by qualified individuals led to the action to conduct research on the AIKCU schools and faculty perceptions via an anonymous survey.

## CHAPTER III: METHODOLOGY

The researcher conducted a descriptive case study and used a cross-sectional survey as the research method. The study examined how AIKCU faculty describe their experiences of forced virtual learning caused by Covid-19 in the spring 2020 semester, and how they perceive the impact on student learning outcomes. In addition, the study's purpose was to determine if some academic disciplines may more readily lend themselves to virtual learning and/or supplemental instruction in the future as compared to other academic disciplines. Consequently, if a decline in student learning outcomes is acknowledged, professors in these fields will benefit from the information, and they may desire to revisit content and supplement instruction to strengthen skills. The researcher considered the amount of experience faculty had with virtual instruction pre-Covid-19. The researcher included data pertaining to faculty perception of the amount of technology available and training provided by their institution at the onset of the abrupt transition to virtual instruction. The questionnaire extracted information regarding faculty perception of academic integrity, student-faculty connectedness, and meeting expectations and objectives of the content. In addition, the respondents were able to indicate their level of impact personally. Those items included family responsibilities, exhaustion, and interest level as it pertained to teaching responsibilities.

## Research Questions

This study examines the following main research question and sub-questions. The main research question was: How do AIKCU faculty describe their experiences due to forced virtual learning caused by Covid 19 in the spring 2020 semester and how do they perceive the impact on student learning outcomes?

The researcher chose to conduct a descriptive case study which provides a description of an issue in a given context. Yin (2014) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon ('the case') in depth and within its real-world context" (p.16) . Yin (2014) emphasized the power of high-quality case study research, focusing on rigor, validity, and reliability. According to McCombs (2022), case studies are used for describing, providing comparisons and evaluations, and understanding various aspects of the research problem. The researcher utilized a survey design consisting of both single-answer questions and an opportunity to elaborate on specific desired answers. The following are sub-questions to address the research question:

1. How much experience in traditional online teaching did respondents have before the abrupt transition to virtual instruction, and did virtual instruction play a role in the perception of the faculty and how well the transition went based on faculty perception?

2. How did the shift to undergraduate virtual instruction impact the ability to develop relationships and accessibility between faculty and students in the spring 2020 semester based on faculty perception?

3. How did faculty respond to the forced virtual instruction in spring 2020 based on faculty perception?

4. Did the curriculum transition easily and effectively to virtual instruction in spring 2020 based on faculty perception?

5. How effectively was academic integrity maintained during virtual instruction compared to traditional face-to-face instruction during spring 2020?

6. How prevalent was online learning prior to Covid-19 at AIKCU institutions?

7. Based on faculty perception, how much support was provided in the spring 2020 semester relating to virtual tutoring opportunities and technology accessibility once virtual instruction was implemented?

8. Based on faculty perception, was there instructional assistance implemented due to the pandemic that will likely be kept as part of an instructional method in the future after the pandemic is considered "controlled"?

According to Bhandari (2021), to collect quantitative data, the researcher will often need to use operational definitions that translate abstract concepts (e.g., mood) into observable and quantifiable measures (e.g., self-ratings of feelings and energy levels). Operationalization means turning abstract concepts into measurable observations. Although some concepts, like height or age, are easily measured, others, like spirituality or anxiety, are not. Through operationalization, the researcher can systematically collect data on processes and phenomena that are not directly observable. (Bhandari, 2021).

**Research Design**

The researcher chose a descriptive case study design utilizing quantitative data collection to allow access to every academic professional within AIKCU who serves as an instructor to have an opportunity to respond. The cross-section survey research method utilized a questionnaire as the instrument of choice. According to Gaille (2020), survey research provides an opportunity of convenience for participants to respond. It is inexpensive, includes advanced software solutions, results are fast, and has scalability. In addition, survey research provides multiple sources at once, comparable results, straightforward analysis, covers every component, has fewer time constraints, and allows respondents to maintain anonymity. The questionnaire

used was web-based, which has proven to provide higher response rates among specific

populations, according to Fricker and Schonlau (2002).

However, according to Godwin (2022), quantitative research design may also carry

disadvantages as well. Respondents will likely not be fully engaged in a survey that lasts more

than 8-10 minutes. Online surveys often operate by sending repeated requests to complete the

survey, which can be perceived as annoying and may result in the survey being deleted. Since

typical online quantitative surveys have the respondent remain anonymous, there is a danger that

the person intended to respond to the survey is not the person responding, which would then

impact the accuracy of the information obtained. Mahmutovic (2021) noted that online surveys

primarily operate under closed-ended questions, limiting the amount of information a respondent

can give. Additionally, online surveys do not have interviewers, who will often assist

respondents with elaborate answers and gather additional information on the topic from the

respondent's perception (Goodwin, 2022).

**Boundaries of the Case**

For this study, the researcher invited participants to complete the survey if they were part

of academia for any of the 18 private colleges and universities that are members of AIKCU. The

students referred to in the study attended one of the 18 AICKU private colleges and universities.

The questionnaire did not inquire about the age, ethnicity, gender, or academic level of the

students. The faculty who responded only referred to the students in their class(es). The

researcher collected the respondents' demographic information including race, gender, age, and

years teaching. The data was collected in the fall 2022 semester from October 31, 2022, to

November 13, 2022.

**Protection of Participants**

The researcher protected the identity and privacy of the participants in this study in several ways. First, the researcher guaranteed participants anonymity to the public, and participants were not required to report their affiliated institution. Secondly, if participants provided a follow-up email, the researcher assured anonymity when sharing results. The researcher only utilized it to glean more information. Third, the researcher made participants aware of their role in the research and guaranteed the ability to abort the survey at any time throughout the process. Participants signed a required electronic consent form before beginning the survey (see Appendix A). The researcher embedded the consent form in the first page of the survey. In addition, the researcher filed for IRB approval with Western Kentucky University. The researcher followed Western Kentucky University's IRB protocol for human subject research (see Appendix B).

**Procedures**

**Instrumentation**

This case study used quantitative data collection and the study depended on the willingness of faculty to provide pertinent information based on their knowledge and experience. In addition to knowledge and experience, Bernard (2002) and Spradley (1979) note the importance of availability and willingness to participate, and state that the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner is critical to successful research, including survey research. The researcher used a questionnaire for data collection, a non-experimental descriptive approach. "Non-Experimental designs are research designs that examine social phenomena without direct manipulation of the conditions that the subjects experience.

There is no random assignment of subjects to distinct groups" (Bhandari, 2021, n.p.). Cresswell (2009) shared that "surveys allow researchers to measure perceptions, attitudes, and opinions in a population" (p. 145).

The researcher created a 43-question survey (see Appendix C). All the questions were close ended to gain a general perspective from the faculty participants. However, several of the questions included opportunities for the participants to provide additional information. The survey's primary purpose was to examine how AIKCU faculty describe their experiences of forced virtual learning caused by Covid-19 in the spring 2020 semester and to explore how they perceived the impact of virtual learning on student learning outcomes.

The initial questions were to determine the title of the person responding. Other questions sought to secure information regarding the respondent's academic discipline. A Likert Scale measured the survey responses except for those questions that required fill-in-the-blank answers.

The Likert Scale is a rating scale used to measure attitudes or opinions. Likert Scales asks respondents to rate items on a level of agreement. The responses do not have to be *"Strongly Agree"* to *"Strongly Disagree"* to be on a Likert Scale. Variations include:

· **Agreement**: Strongly agree to strongly disagree.

· **Frequency**: Often to never.

· **Quality**: Very good to very bad.

· **Likelihood**: Definitely to never.

· **Importance**: Very important to unimportant. (Glen, 2021, n.p.)

**Pilot Test**

The researcher had 10 participants complete the survey prior to sending the survey for actual data collection. The 10 participants provided feedback regarding how questions may need to read differently to glean the information that would address the research question. The researcher made adjustments according to feedback.

The participants suggested additions to academic disciplines. The researcher adjusted some of the questions to create clarity based on feedback. Two of the pilot participants recommended an addition of demographics. The 10 participants were not faculty, but were familiar with higher education. The pilot test provided strong feedback to confirm content, construct, and criterion validity.

**Data Collection**

The Western Kentucky University Institutional Review Board approved the research (see Appendix B). Dr. O, President of the Association of Independent Kentucky Colleges and Universities (AIKCU) granted permission to conduct the research. Dr. O assisted with distributing the survey to academic officers of the 18 private college and university AIKCU members. Additionally, Dr. O played the role of inviting academic representation to participate to benefit all 18 AIKCU schools. The researcher intended for all faculty and some administrative members serving the 18 AIKCU schools to have access to the survey. The researcher shared an email (see Appendix E) to all viable participants via Dr. O. The email included the anticipated amount of time required to complete the survey and the link to the survey created in Qualtrics. Qualtrics is a software package which provides feedback using descriptive statistics displaying the mean, standard of deviation, variance, and frequency of response for each variable. Ryan Smith, Scott Smith, Jared Smith, and Stuart Orgill created Qualtrics in 2002.

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The researcher acquired research approval from the Western Kentucky Institutional

Review Board (IRB; see Appendix B). Before moving forward in the questionnaire, all

participants read and agreed to the consent form (see Appendix A). The consent form made

participants aware that they could terminate participation in the survey without penalty. If a

participant selected early departure from the survey, the survey took the respondent to the end of

the survey bypassing any additional questions. The survey guaranteed participants anonymity,

and no identifiers were required. The researcher opened the survey for two weeks in the fall of

2022. Dr. O sent three follow-up reminders to academic officers on days five, nine, and twelve.

**Data Analysis**

The researcher used Qualtrics to collect response data for this case study. The

researcher also used descriptive statistics along with ordinal nominal data allowing for

the calculation of mode and frequency distribution. The responses focused on answering

questions that addressed the faculty's perceptions of the ability to develop relationships

with students once forced virtual learning took place. The survey included faculty's

responses to forced virtual learning brought on by Covid-19. The questionnaire

considered the perceived level of student responses to forced virtual learning. The

questionnaire provided an opportunity to express the perceived status of academic

integrity with forced virtual learning, and the status of student engagement. It included

the faculty's perceptions of accessibility of faculty for students and student access to

tutoring in specific academic disciplines associated with the respondent. The

questionnaire provided the opportunity for the respondent to share new techniques

implemented out of necessity, and technology that will be kept in future instruction. This

research shed light on the reality determined by faculty perceptions.

The researcher designed the questionnaire to pertain to all research questions individually. A web survey collected the data. The researcher constructed the questionnaire in the virtual survey software, Qualtrics. The researcher used quantitative methods for utilizing a virtual survey.

The researcher used Qualtrics to track the frequency of answers for each question. This software can identify if specific academic disciplines proved to be more challenging in a virtual format. Qualtrics can extract the additional comments provided, and those comments are viewable.

**Potential for Researcher Bias and Limitations**

Bias can potentially play a role in any research study. Merriam (2009) suggested, "rather than trying to eliminate these biases, it is important to identify them and monitor them as to how they may be shaping the collection and interpretation of data" (p. 295). Identifying and monitoring any connection the researcher has to the institutions studied, the faculty studied, or the participants is critical, so potential researcher bias does not compromise the data. Therefore, the researcher discloses the following: the researcher is employed by one of the 18 AIKCU schools in the study, and the researcher also serves as a First-Year Experience instructor at this institution. However, the researcher does not have leadership over any participant in the study. Quantitative analysis was conducted primarily using closed-ended survey questions, leaving little room for researcher interpretation or bias potential.

Web-based surveys present limitations. Although surveys offer many advantages; disadvantages also exist. Bell (1996) observed that biases may occur, either in the lack of response from intended participants or in the nature and accuracy of the responses received. In

addition, errors may occur when respondents intentionally misrepresent answers to conceal inappropriate behavior. Finally, respondents may have difficulty assessing their behavior or have poor recall of the circumstances surrounding their behavior.

**Validity and Reliability**

It is essential in research to assess the validity and reliability of the research instrument. "Validity is defined as the degree to which a concept or concepts are accurately measured in a quantitative study" (Heale & Twycross, 2015, p. 66). According to Heale and Twycross (2015), there are three types of validity: content validity, construct validity, and criterion validity.

Content validity ensures that the instrument addresses all the necessary content to answer the research questions. The researcher utilized research similar to Sims and Baker to secure content validity. Sims and Baker (2020) conducted a two-part questionnaire. Information included 28 questions collecting demographic information and another portion of the questionnaire collected responses via a 7-point Likert scale. The Likert scale included information pertaining to the decline in student engagement and performance, the quality of delivery, time management skills, managing grades, and stress on faculty.

Construct validity refers to whether one can draw inferences about test scores related to the studied concept (Heale & Twycross, 2015). Singer-Freeman et al. (2020) examined students' perceptions of faculty struggles. This study allowed the researcher to examine issues students viewed faculty were having once ERT came into place. The students identified issues such as faculty familiarity with virtual instruction, non-responsiveness, and inability to adjust the curriculum to the new format. This enabled the researcher to consider these same responses and examine faculty perception of these same points. Davis et al. (2020) incorporated open-ended questions in the questionnaire utilized in their research. This allowed faculty to expand on some

answers. For this study, the researcher also included some open-ended questions to gain clarification and additional information to contribute to construct validity.

Criterion validity considers the extent to which a research instrument relates to other instruments that measure the same variables (Heale & Twycross, 2015). The researcher utilized similar questions used by Barton's research: "Impacts of the Covid-19 Pandemic On-field Instruction and Remote Teaching Alternatives: Results from a Survey of Instructors" (2020). The researcher requested permission from Barton to create similar questions for this study although the instrument is published (see Appendix D.)

Joppe (2000) defined reliability as "the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable" (p. 1).

**Summary**

Chapter III reiterated the main research question and the eight sub-questions the research seeks to answer. Chapter III explained the methodology used in this quantitative survey research case study. Instrumentation and processes were defined in detail to allow others an opportunity to repeat a similar study if desired. The researcher reviewed validity and reliability and drew the conclusion that both were met in this study. Western Kentucky University IRB clarified and confirmed the protection of the participants. Collectively, the researcher discussed procedures for data collection, data analysis, and potential for researcher bias. Chapter IV will present the research findings and analyses.

# CHAPTER IV: RESULTS

## Introduction

Covid-19 impacted multiple aspects of higher education. Students faced academic and financial challenges. Some administrators dealt with a loss in revenue from enrollment, a decrease in endowment, and an absence of funds from sporting and extracurricular events. Faculty developed and utilized new ways to educate students during the spring 2020 semester once Covid-19 forced instruction to emergency remote teaching (ERT).

## Purpose of the Study

The purpose of this study was to gain an understanding of college faculty experiences and perceptions of student learning outcomes based on the academic discipline during forced virtual instruction in the spring 2020 semester due to Covid-19. The researcher limited the study to faculty who taught at one of the 18 member institutions of the Association of Kentucky Colleges and Universities (AIKCU). The survey considered factors such as the academic discipline, faculty experience with virtual instruction, the availability of technology for faculty and students, and the support provided to students and faculty amid the transition to virtual instruction. The survey reviewed responses from each AIKCU respondent. The president of AIKCU, Dr. O, facilitated the dissemination of the questionnaire by sending the Qualtrics survey link to all AIKCU academic officers for the 18-member institutions.

This chapter presents the findings from the survey. The study examines the main research question: How did AIKCU faculty describe their experiences due to forced virtual learning caused by Covid 19 in the spring 2020 semester and how did they perceive the impact on student learning outcomes?

The sub-questions below contributed to the research question:

1. Did faculty experience with online teaching prior to the abrupt transition to virtual instruction play a role in how well they felt the transition went?

2. How did the shift to undergraduate virtual instruction impact the ability to develop relationships and accessibility between faculty and students in the spring 2020 semester?

3. How did faculty respond to the forced virtual instruction professionally and personally in the spring 2020 semester?

4. Did the curriculum transition easily and effectively to virtual instruction in spring 2020?

5. How effectively was academic integrity maintained during virtual instruction compared to traditional face-to-face instruction during spring 2020?

6. How prevalent was online learning prior to Covid-19 at AIKCU institutions?

7. When colleges and universities implemented virtual instruction, how much support was provided in the spring 2020 semester regarding virtual tutoring opportunities and technology accessibility?

8. Was there instructional assistance implemented due to the pandemic, and if so, will it likely be kept as part of an instructional method in the future after the pandemic is considered "controlled"?

## Data Collection

The researcher used Qualtrics, the online data collection software, to collect and analyze the data. The study is nonexperimental and is also referred to as a descriptive study. Descriptive studies, according to Dulock (1993), are defined as observations to determine the status of what exists and at no time are treatments administered to impact the study. This case study depended

on descriptive statistics since faculty perception was being measured. The descriptive statistics valuable to this research were range, variance, and frequency of response. The collection of this analyzed data assisted with answering the sub-questions as well as the main research question. This chapter addresses the results of the data analysis. The findings will address each sub-question in the order the questions have been presented. The researcher will utilize the culmination of the sub-question responses to provide the findings that pertain to the main research question. These findings, as they relate to the sub-questions and the main research question, will be addressed in the next chapter of this study.

**Qualifying Data**

The researcher administered the questionnaire to all faculty who were employed by one of the 18 members of the AICKU institutions as the time of the survey. The survey format informed respondents that they could leave the survey at any time without penalty. Respondents had to read the informed consent form and could not move forward until they indicated they had read and agreed to participate in the survey.

The first question determined if the respondent was teaching in spring 2020 when ERT was mandatory for face-to-face classroom settings. Respondents not teaching during that time frame were directed to the end of the survey and thanked for their participation. The survey directed those respondents teaching in spring 2020 and impacted by ERT to move forward in the survey. A total of 68 people responded to the survey. There were 11 faculty (16.18%) who were not teaching during spring 2020 and 57 (83.82%) who were teaching during the spring 2020 semester, and they moved forward to complete the survey. The 57 respondents did not participate in each question. The results include the number of participants for each question.

**Demographic Data**

Respondents (*N*=50) to the questionnaire represent a diverse group of faculty. They varied by age, gender, and ethnicity. In addition, 50% of the respondents represented full-time tenured faculty; 29.17% represented those who have taught for 20 years or more (see Table 1).

**Gender**

Gender was self-reported. Of the participants (*n* = 48) who responded to this question, the distribution was female (54.17%), male (43.75%), and non-binary (2.08%). Additional options of transgender male, transgender female, and self-describe could be selected, but responses did not indicate one of those categories (see Figure 1).

Figure 1

*Gender*
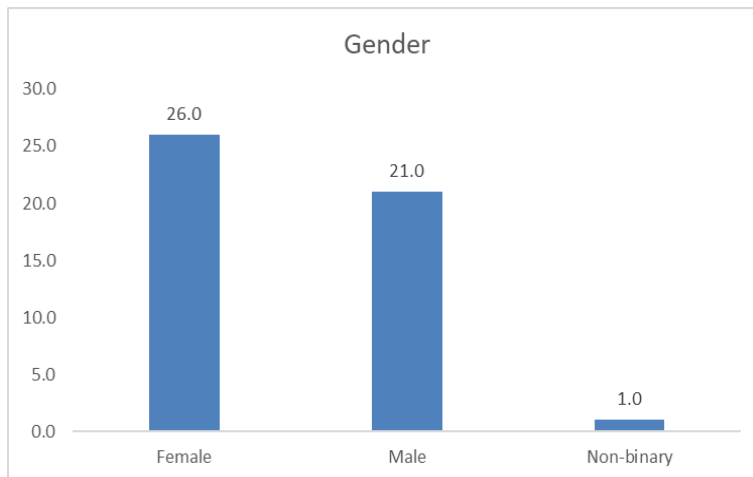


**Age**

Of the participants (*n* = 48) who responded to this question, those 30-years old or less represented 2.08% of the responses. The next category represented 31-40 years of age at 29.17%. The age of 41-50 years represented 16.67% of respondents. The age between 51-60 years

represented the highest number of faculty at 37.50%. Faculty members 61+ years of age

represented 14.58% (see Figure 2).

Figure 2

*Age*
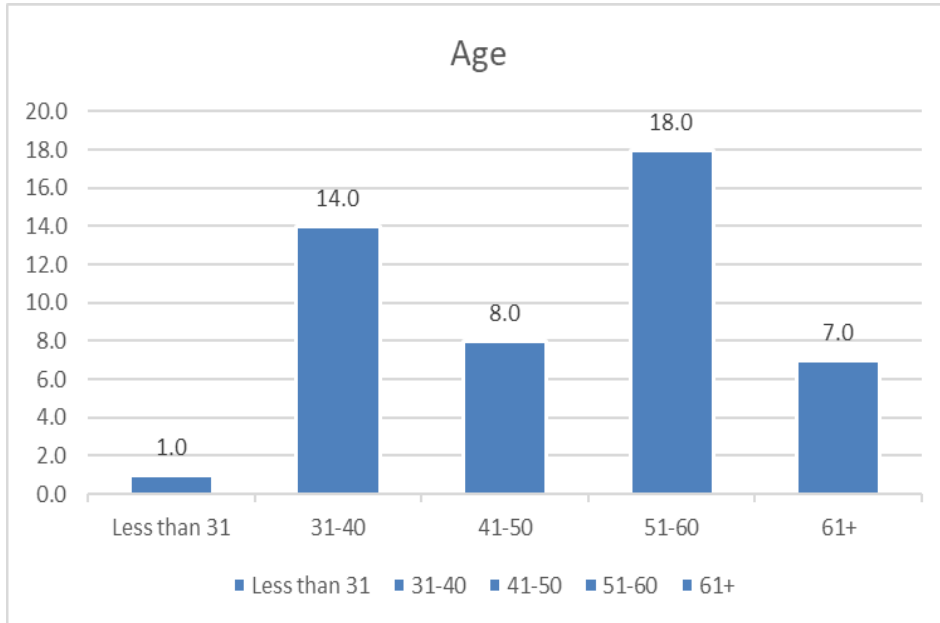


**Ethnicity**

A total of (*N*=49) respondents answered the ethnicity question. Respondents self-reported

ethnicity. Native American/Alaska Native represented 2.04% of responses. Black/African

American represented 2.04 % of the surveyed responses. Respondents identified as 89.80%

White, 2.04% Hispanic/Latino/Latinx, and 4.08% chose not to reveal their ethnicity. Asian,

Native Hawaiian or Other Pacific Islander, and two or more races were also options in this

survey, but were not indicated (see Figure 3).

Figure 3

*Ethnicity*
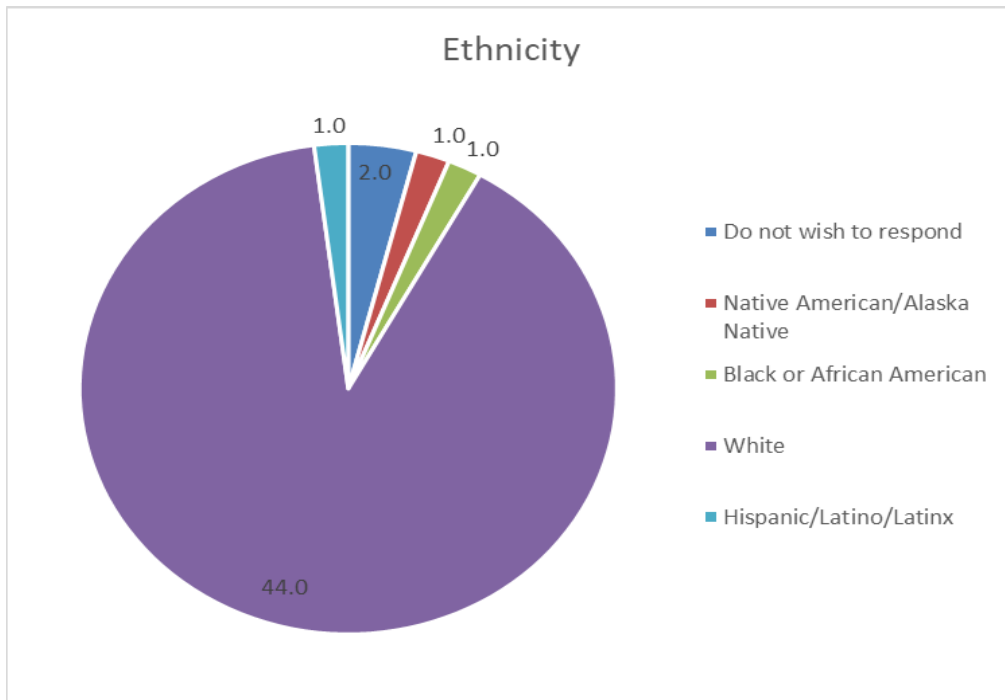


**Role of Faculty**

The survey included a question to determine the role respondents held at their institutions during spring 2020. As shown in Figure 4, the respondents represented full-time tenured faculty at 50%, part-time faculty at 5.77%, and full-time, non-tenured faculty at 34.62%. The responses also consisted of 9.62% of provided answers that represented an "other" category. The 9.62% represented a retired president, teaching librarian, graduate assistants, and a full-time faculty member seeking promotion at a non-tenure institution.

Figure 4

*Role of Faculty*


Role of Faculty
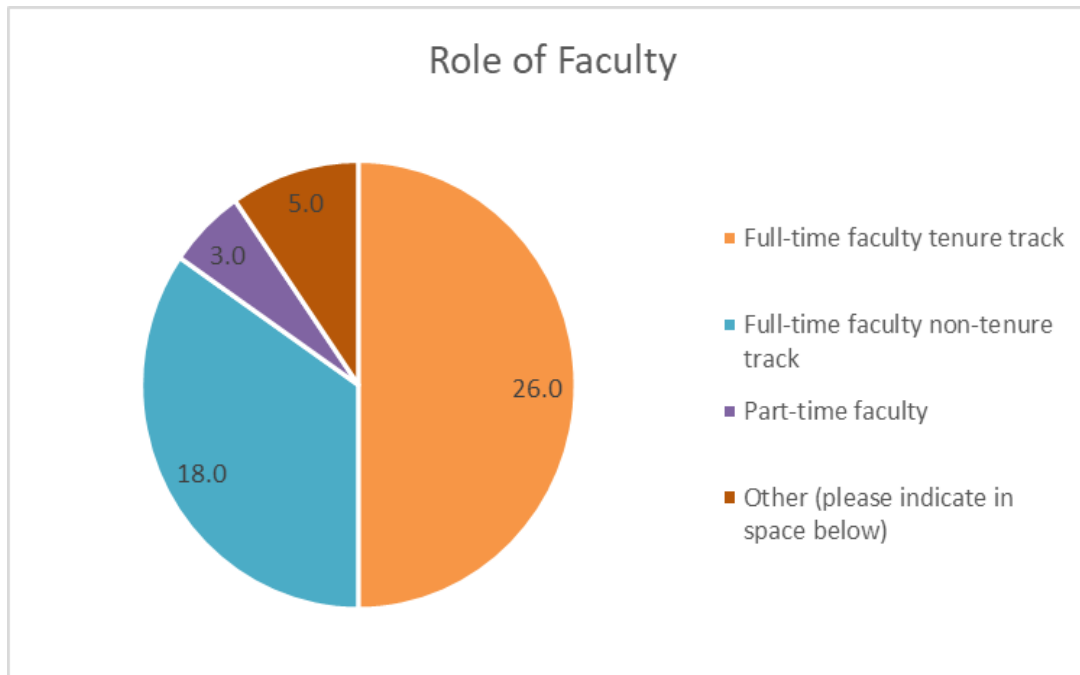
**Years Teaching**

The respondents provided the number of years teaching in higher education. The results indicated that 8.33% have taught between one and five years, 25% have taught between six and 10 years, 18.75% have taught between 11 and 15 years, and 18.75% have taught between 16 and 20 years. The highest percentage of 29.17% represented those respondents who have taught for 20 or more years. (see Figure 5).

Figure 5
*Years Teaching*
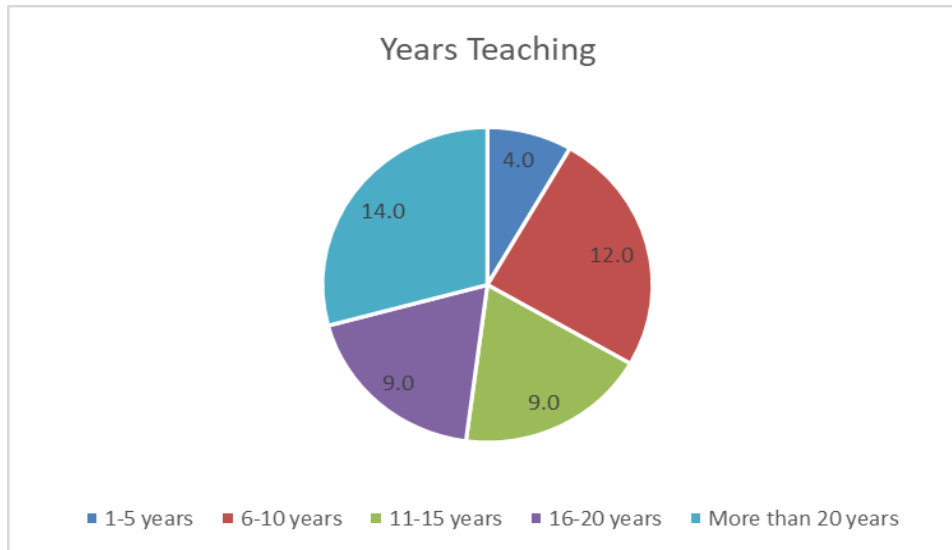


Table 1 displays summary statistics of the participants in the study.

Table 1

*Demographics of Participants*

|  |  | *n* | % |
|---|---|---|---|
| Gender [a] |  |  |  |
|  | Female | 26 | 54.17 |
|  | Male | 21 | 43.75 |
|  | Non-binary | 1 | 2.08 |
| Age [a] |  |  |  |
|  | 30 or less | 1 | 2.08 |
|  | 31-40 | 14 | 29.17 |
|  | 1-50 | 8 | 16.67 |

| | | |
|---|---|---|
| 51-60 | 18 | 37.50 |
| 61+ | 7 | 14.58 |

| Ethnicity | | |
|---|---|---|
| Native American/Alaska Native | 1 | 2.04 |
| Black/African American | 1 | 2.04 |
| White | 44 | 89.80 |
| Hispanic/Latino/Latinx | 1 | 2.04 |
| Missing | 2 | 4.08 |

| Role of faculty | | |
|---|---|---|
| Full-time | 26 | 50.00 |
| Full-time non-tenured | 18 | 34.62 |
| Part-time | 3 | 5.77 |
| Other | 5 | 9.62 |

| Years Teaching (years) | | |
|---|---|---|
| 1 – 5 | 4 | 8.33 |
| 6 – 10 | 12 | 25.00 |
| 11 – 15 | 9 | 18.75 |
| 16 – 20 | 9 | 18.75 |
| 20 + | 14 | 29.17 |

*Note*: Data collected during spring 2020 semester.

[a] (*n* = 48 for Age, Gender, and Years Teaching)

**Findings of Sub-Question One**

*Did faculty experience with online teaching prior to the abrupt transition to virtual instruction play a role in how well they felt the transition went?*

Sub-question one explored the amount of experience respondents had regarding online teaching prior to the abrupt transition to virtual instruction in the spring 2020 semester. A total of 51 respondents answered sub-question one. The respondents (*n=7*; 13.73% ) indicated their experience at "*Very good,*" 19.61% (*n=10*) indicated "*Good,*" 24.49% (*n=13*) responded "*Neutral,*" 27.45% (*n=14*) indicated "*Poor,*" and 13.73% (*n=7*) responded "*Very poor.*"

**Findings of Sub-Question Two**

*How did the shift to undergraduate virtual instruction impact the ability to develop relationships and accessibility between faculty and students in the spring 2020 semester?*

Based on faculty perception, sub-question two considered whether the shift to undergraduate virtual instruction impacted the ability to develop relationships and accessibility between faculty and students in spring 2020. This question had (*N=50*) respondents. The responses implied a decline in connectedness once ERT occurred. Based on the responses, 56% (*n=28*) indicated "*Strongly Agree,*" 34% (*n=17*) indicated "*Agree,*" 4% (*N=2*) remained "*Neutral,*" and 6% (*N=3*) selected "*Disagree.*"

**Findings of Sub-Question Three**

*How did faculty respond to the forced virtual instruction professionally and personally in the spring 2020 semester?*

Sub-question three addressed faculty responses to the forced virtual instruction in spring 2020. The questionnaire addressed this topic with multiple questions. The faculty self-admittedly had their challenges, but the respondents also indicated several areas that directly impacted

students. However, for this sub-question, issues that affected faculty were the only ones considered. These issues were faculty responses to adjustments, faculty tiredness, lost interest in content, and family responsibilities.

**Faculty Responses to Adjustment**

Traditional preparation for face-to-face instruction requires much planning and preparation. Faculty teaching in spring 2020 had already implemented instructional plans and conducted classes accordingly. However, ERT created an unprecedented situation for these faculty members. Faculty responded almost unanimously to the question if ERT caused extra preparation time and effort. A total of ($N$=51) answered the question. More than 78% of faculty (78.43%, $n$=40) chose *"Strongly Agree,"* 19.61% ($n$=10) indicated *"Agree,"* while 1.96% ($n$=1) answered *"Strongly Disagree."*

**Faculty Tiredness**

A survey question also addressed self-reported faculty adjustment considered an increase in faculty exhaustion due to converting to virtual instruction mid-semester. A total of ($N$=50) faculty members responded to this question. Forty-four percent ($n$=22) selected "*Strongly Agree*" with an increase in tiredness, and 28% ($n$=14) selected *"Agree."* There was a *"Neutral"* response from 12% ($n$=6), 10% ($n$=5) indicated they *"Disagree,"* and 6% ($n$=3) *"Strongly Disagree."*

**Lost Interest in Content**

Another survey question pertaining to faculty adjustment asked if faculty lost interest in the content being taught due to ERT. A total of ($N$=50) members responded to this question. Although faculty were weary, this question indicated their continued dedication to teaching. No

one selected *"Strongly Agree."* Twenty percent (*n=20*) indicated *"Agree,"* another 12% (*n=6*) chose *"Neutral,"* 38% (*n=19*) *"Disagree,"* and 30% (*n=15*) *"Strongly Disagree."*

**Family Responsibility**

The final survey question pertaining to faculty adjustment asked if Covid-19 caused an overlap of teaching and family responsibilities for them personally during ERT in spring 2020. Since it was based on personal experience, this question gave a glimpse into faculty adjustment as it pertains to the crossover between work and family. This question had (*N=50*) responses. A considerable number (*n=20*, 40%) indicated *"Strongly Agree"* to the overlap of work and family responsibilities. Eighteen percent (*n=9*) chose *"Agree,"* to the overlap. Twelve percent (*n=6*) indicated a *"Neutral"* response. While *"Disagree"* represented 26% (*n=13*), and *"Strongly Disagree"* represented 4% (*n=2*).

**Findings of Sub-Question Four**

*Did the curriculum transition easily and effectively to virtual instruction in spring 2020?*

Based on faculty perception, sub-question four considered if the curriculum transitioned easily and effectively to virtual instruction in spring 2020. This topic was addressed in multiple questions in the survey. The questions revolved around learning effectiveness, overall academic achievement, and the overall quality of education. Those who taught in spring 2020 indicated if student learning outcomes were achieved by virtual instruction as well as face-to-face instruction. The participants (*N=50*) for this question were asked about student learning outcomes achieved under virtual instruction as compared to face-to-face instruction. The respondents answered that 2% (*n=1*) felt it was *"Better,"* 14% (*n=7*) indicated learning outcomes as the *"Same,"* 68% (*n=34*) marked learning outcomes achievement as *"Worse,"* and 16% (*n=8*) indicated learning outcomes achievements as *"Much Worse."*

For this sub-question, additional responses were solicited for *Learning Effectiveness*, *Overall Academic Achievement, and Overall Quality of Education.*

**Learning Effectiveness**

The next question detected how the respondents compared face-to-face instruction to forced virtual learning (ERT). The question had ($N$=50) respondents. No one indicated forced virtual learning effectiveness was a *"Much Better"* or *"Better"* outcome than face-to-face effectiveness. However, 14% ($n$=7) of respondents indicated face-to-face instruction and forced virtual learning effectiveness as the *"Same."* Many respondents indicated a great deal of concern regarding the effectiveness of forced virtual learning. Most respondents ($n$=35; 70%) selected *"Worse,"* and 16% ($n$=8) selected *"Much Worse."*

**Overall Academic Achievement**

Sub-question four also encompassed the perception of overall academic achievement for students when comparing forced virtual instruction to face-to-face instruction. The survey question that pertained to overall academic achievement assessment had ($N$=50) responses. The results showed 2% ($n$=1) for *"Better,"* 22% ($n$=11) represented *"Same,"* 66% ($N$=33) indicated *"Worse,"* and 10% ($N$=5) chose *"Much Worse."*

**Overall Quality of Education**

The final question in the survey associated with sub-question four gauged faculty perception of the overall quality of education when comparing forced virtual learning/ERT and face-to-face instruction. This question had ($N$=50) responses. A small amount, 2% ($n$=1), indicated overall quality was *"Better,"* 14% ($n$=7) indicated *"Same,"* while a resounding number of responses, 70% ($n$=35) indicated *"Worse,"* and 14% ($n$=7) marked *"Much Worse."*

**Findings of Sub-Question Five**

*Was academic integrity maintained during virtual instruction compared to traditional face-to-face instruction during the spring 2020 semester?*

Sub-question five was to determine how effectively academic integrity was maintained during virtual instruction compared to traditional face-to-face instruction during spring 2020. The survey results had ($N=50$) responses. Nearly 50 percent of the respondents selected either *"Strongly Agree"* or *"Agree"* ($n=12$, 24%, for each category) that (ERT) compromised academic integrity.

**Findings of Sub-Question Six**

*How prevalent was online learning prior to Covid-19 at AIKCU institutions?*

Sub-question six was to determine how prevalent online learning was in the respondent's discipline prior to Covid-19 at AIKCU institutions. Participants ($N=50$) to question provided the following answers. The response of *"No"* represented ($n=37$) 72.55% of the responses. The remaining responses ($n=14$) of "*Yes*" represented 27.45% of the respondents' answers.

**Findings of Sub-Question Seven**

*When colleges and universities implemented virtual instruction, how much support was provided in the spring 2020 semester regarding virtual tutoring opportunities and technology accessibility?*

Sub-question seven asked faculty to comment on virtual tutoring opportunities and accessibility of online tools. However, the researcher felt it was important to understand if faculty felt they had adequate internet service before assessing the institutional help provided. Therefore, faculty ($N=48$) provided the following information. Faculty who felt internet service

was "*Excellent*" or *"Good"* accounted for 83.33% (*n=40*) of responses, while 12.5% (*n=6*) indicated "*Fair"* and 4.17% (*n=2*) responded, *"Poor."*

Faculty also indicated a sense of receiving institutional support. Faculty representing 85.42% (*n=41*) felt they had excellent or good support from their institution regarding technology. Four responses (8.33%) selected *"Fair"* support and three responses (6.25%) indicated *"Poor"* support.

Faculty perception of technology availability was positive. A total of (*N=49*) respondents participated in the survey question that answered sub-question seven. Library resources appeared to be accessible with 59.18% of respondents recording *"No Challenge."* Faculty perception of student access to library resources was also reasonable with responses ranging from *"Moderate Challenge"* to *"No Challenge"* making up 69.39% of answers. Faculty scored the most significant challenge to be their discomfort or lack of familiarity with required technologies and applications with 16.33% of responses choosing *"Extreme Challenge"* for this category (see Table 2).

Table 2

*Challenge/Technology Issues/ERT*

|  | *n* | Not applicable | Extreme challenge | Moderate challenge | Slight challenge | No challenge |
|---|---|---|---|---|---|---|
| Face-to-face collaboration tools (e.g. whiteboards) | 49 | 17 (34.7%) | 4 (8.2%) | 9 (18.4%) | 10 (20.4%) | 9 (18.4%) |
| My access to library resources | 49 | 7 (14.3%) | 3 (6.1%) | 3 (6.1%) | 7 (14.3%) | 29 (59.2) |
| Student access to library resources | 49 | 12 (24.5%) | 3 (6.1%) | 7 (14.3%) | 12 (24.5%) | 15 (30.6%) |

| | | | | | | |
|---|---|---|---|---|---|---|
| My access to reliable communication software/tools (e.g., Zoom, Skype) | 49 | 0 (0.0%) | 0.0 (0.0%) | 11 (22.4%) | 12 (24.5%) | 26 (53.1%) |
| My access to reliable internet/service | 49 | 0 (0.0%) | 0 (0.0%) | 8 (16.3%) | 12 (24.5%) | 29 (59.2%) |
| My access to specialized software | 49 | 8 (16.3%) | 3 (6.1%) | 8 (16.3%) | 8 (16.3%) | 22 (44.9%) |
| My own discomfort or lack of familiarity with required technologies or applications | 49 | 0 (0.0%) | 8 (16.3%) | 13 (26.5%) | 16 (32.7%) | 12 (24.5%) |

## Findings of Sub-Question Eight

*Was there instructional assistance implemented due to the pandemic, and if so, will it likely be kept as part of an instructional method in the future after the pandemic is considered "controlled"?*

The findings for sub-question eight addressed the faculty perception regarding instructional assistance that was implemented due to ERT. Table 3 also supports the responses regarding the implementation of instructional tools once the pandemic was considered controlled. Faculty (63.27%) *"Strongly Agree"* or *"Agree"* with conference tools such as Canvas, Zoom, and Blackboard. Faculty (67.35%) scored synchronized class meetings as a valuable tool. Faculty indicated that virtual office hours were an effective tool, with 18.37% selecting *"Strongly Agree"* and 44.90% *"Agree"* with the resource for a combined 63.27%.

Table 3

*Tools/Implementation/Potential*

| | *n* | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|---|---|---|---|---|---|
| Synchronous class meetings | 49 | 21 (42.9%) | 12 (24.5%) | 4 (8.2%) | 9 (18.4%) | 3 (6.1%) |
| Using Web Conferencing tools (e.g., Zoom, Blackboard, Collaborate, Canvas). | 49 | 10 (20.4%) | 21 (42.9%) | 9 (18.4%) | 5 (10.2%) | 4 (8.2%) |
| Virtual office hours | 49 | 9 (18.4%) | 22 (44.9%) | 8 (16.3%) | 6 (12.2%) | 15 (30.6%) |
| Recorded video lectures/Recorded audio lectures or podcasts | 49 | 8 (16.3%) | 16 (32.7%) | 11 (22.4%) | 8 (16.3%) | 6 (12.2%) |
| Voice-over PowerPoint presentations | 49 | 5 (10.2%) | 9 (18.4%) | 12 (24.5%) | 13 (26.5%) | 10 (20.4%) |
| Discussion boards | 49 | 6 (12.2%) | 13 (26.5%) | 12 (24.5%) | 10 (20.4%) | 8 (16.3%) |
| Simulation or modeling software | 49 | 6 (12.2%) | 15 (30.6%) | 19 (38.8%) | 4 (8.2%) | 5 (10.2%) |

Faculty also provided other methods utilized that had positive results not listed as options in the survey question. One response indicated a method not usable in the future. The faculty responses to methods included the following open-ended responses listed below.

- *"We began filming our labs and collecting data for students to process after watching the videos. I also created a "Choose your own adventure" style*

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*qualitative analysis lab in Canvas. We now use these for students with extended*

*absences or in quarantine."*

- *"Anonymous Zoom polls"*

- *"Socrative online polls"*

- *"Flip Grids"*

- *"Increased telephonic availability to students"*

- *"Google Classroom"*

- *"Building out my Blackboard courses to be more than just places to submit*

  *assignments."*

- *"I will Zoom guest speakers, rather than limiting to those who can come to*

  *campus. When I had Covid this year, I taught classes and held paper conferences*

  *by Zoom."*

- *"I went to written lectures, with written papers, in accordance with our*

  *instruction to go asynchronous. This did not work well."*

**Findings of the Main Research Question**

The main research question was: *How do AIKCU faculty describe their experiences due to forced virtual learning caused by Covid 19 in the spring 2020 semester and how do they perceive the impact on student learning outcomes?*

The researcher ran cross-comparisons in Qualtrics of sub-questions to address the study's main research question. The researcher cross-compared the number of classes taught per individual respondent to determine if it played a role in faculty perception of student learning outcomes reached. The feedback from AIKCU faculty showed a negative impact on learning outcomes. Eighty-four percent indicated learning outcomes were *"Worse"* or *"Much Worse."*

Fourteen percent expressed learning outcomes were the *"Same."* While 2% indicated learning outcomes as *"Better."* The responses representing the 2% came from those who indicated they were teaching one class online. Data may indicate it is easier to see improvement if a faculty member is focusing on one class (see Figure 6).

Figure 6

*Number of Courses Taught/Impact on Learning Outcomes*
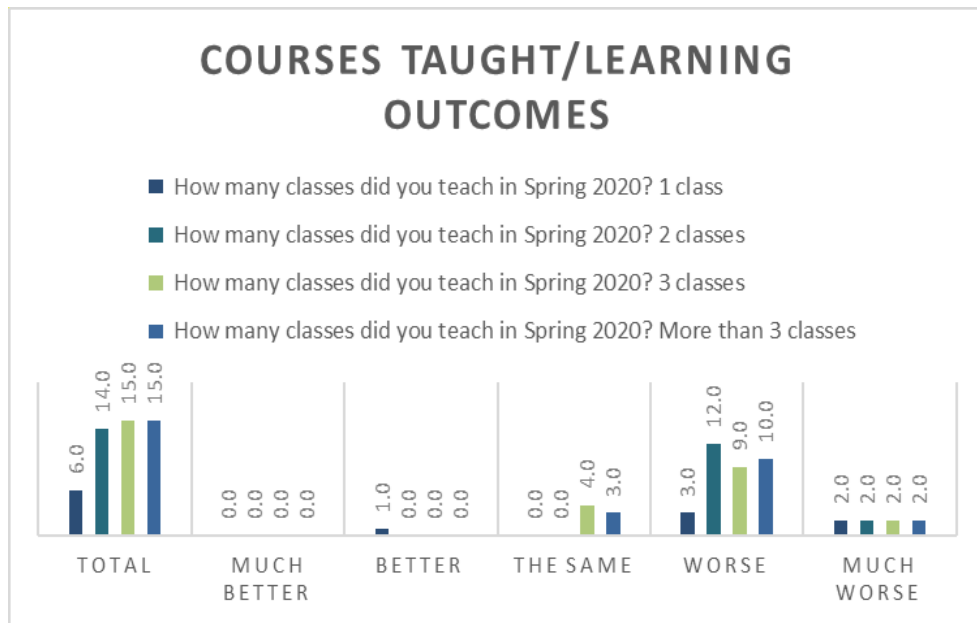


*Note: N=50.*

I compared the age of faculty and learning outcomes to see if there was a potential connection between age and student learning outcomes. The cross-comparison of age and learning outcomes had (*N=48*) answers. A collective 68.8% indicated student learning outcomes

were "*Worse*" and 14.6% indicated "*Much Worse*." Respondents who were 61+ years of age

responded the most positively to their perception of learning outcomes. This group responded

14.3% "*Better*," and 28.6% *"Same."* (see Table 4).

Table 4

*Student Learning Outcomes by Age*

| | | Less than 31 | 31-40 | 41-50 | 51-60 | 61+ |
|---|---|---|---|---|---|---|
| | *n=* | 1.0 | 14.0 | 8.0 | 18.0 | 7.0 |
| Much better | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Better | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| | 2.1% | 0.0% | 0.0% | 0.0% | 0.0% | 14.3% |
| The same | 7.0 | 0.0 | 0.0 | 1.0 | 4.0 | 2.0 |
| | 14.6% | 0.0% | 0.0% | 12.5% | 22.2% | 28.6% |
| Worse | 33.0 | 1.0 | 12.0 | 4.0 | 13.0 | 3.0 |

| | | | | | |
|---|---|---|---|---|---|
| | 68.8% | 100.0% | 85.7% | 50.0% | 72.2% | 42.9% |
| Much worse | 7.0 | 0.0 | 2.0 | 3.0 | 1.0 | 1.0 |
| | 14.6% | 0.0% | 14.3% | 37.5% | 5.6% | 14.3% |

*Note. N=48.*

The researcher cross-compared gender and student learning outcomes to see if it revealed an association. For this survey question, females represented ($n=26$), males represented ($n=21$), and non-binary represented ($n=1$). Transgender male, transgender female, and self-described were options for this survey, but they were not selected. Females indicated the highest percentage of *"Worse"* and *"Much Worse"* with 88.4% of those answers combined. Males also reflected "Worse" or "Much worse" with 81%. However, males were the only category to also indicate 4.8% of student learning outcomes were "Better." There was one non-binary respondent who felt learning outcomes were the "Same." (see Table 5).

Table 5

*Student Learning Outcomes by Gender*

| | | Much better | Better | The same | Worse | Much worse |
|---|---|---|---|---|---|---|
| | $n=$ | 0.0 | 1.0 | 7.0 | 33.0 | 7.0 |
| Female | 26.0 | 0.0 | 0.0 | 3.0 | 22.0 | 1.0 |
| | | 54.2% | 0.0% | 0.0% | 42.9% | 66.7% | 14.3% |
| Male | 21.0 | 0.0 | 1.0 | 3.0 | 11.0 | 6.0 |

| | 43.8% | 0.0% | 100.0% | 42.9% | 33.3% | 85.7% |
|---|---|---|---|---|---|---|
| Non-binary | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| | 2.1% | 0.0% | 0.0% | 14.3% | 0.0% | 0.0% |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

*Note. N=48.* Genders with no responses: Transgender male, transgender female, and self-described.

I conducted a cross-comparison to determine if there was a connection between ethnicity and student learning outcomes. This research question had (*N*=49) respondents. All ethnicity responses compiled represented *"Worse"* and *"Much worse"* at 83.7%. The only gender, White, responded the *"Same"* (15.9%) and *"Better"* (2.3%). Participants also had the option to select Asian, Hispanic/Latino/Latinx, Native Hawaiian or other Pacific Islander, and two or more races. However, respondents did not select one of these ethnicities for this question. (see Table 6)

Table 6

*Student Learning Outcomes by Ethnicity*

| | | Much better | Better | The same | Worse | Much worse |
|---|---|---|---|---|---|---|
| | *n* | | | | | |
| Black | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Hispanic/Latino/ Latinx | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Native American/ Alaska Native | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| No responses | 2.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| White | 44 | 0.0 | 1.0 | 7.0 | 29.0 | 7.0 |

*Note.* Ethnicity with no responses: Asian, Hispanic/Latino/Latinx, Native Hawaiian or other Pacific Islander, and two or more races.

ERT suspended in-person clinical and lab components in classes. The researcher cross-compared faculty perception of student learning outcomes once clinical and lab components transitioned to a virtual format. A total of ($N$=52) responded to the question; however, ($n$=21) answered *"Yes"* and ($n$=31) answered *"No"* to classes with clinical/lab components. Findings revealed that faculty who taught a class with a clinical/lab component did indicate a higher percentage of responses indicating student learning outcomes were *"Worse"* or *"Much Worse"* for a total of 85.7%, and 9.5% felt the student learning outcomes were the *"Same."* Faculty who did not teach a course with a clinical/lab component perceived student learning outcomes to be *"Worse"* or "*Much Worse*" at 77.4 %. However, this same group felt 16.1% of student learning outcomes were the *"Same."* Several faculty who did not have clinical/lab components in a class felt that student learning outcomes were better (3.2%). Courses with clinical/lab components showed a higher percentage of answers in the *"Worse"* or *"Much Worse"* category than those classes without clinical or lab components (see Table 7).

ERT suspended in-person field/observation components in classes. The researcher cross-compared faculty perception of student learning outcomes once field/observation components transitioned to a virtual format. A total of ($N$=51) responded to the question ($n$=10) answered *"Yes,"* and ($n$=41) answered *"No"* to teaching classes with field/observation components. Faculty (80%) who taught courses with field/observation components indicated student learning outcomes were *"Worse"* or *"Much Worse*." However, faculty who did not teach a class with a

field observation component (*n*=41) also answered *"Worse"* or *"Much Worse"* in response to student learning outcomes, which combined for a total of 82.9%. A small number of faculty who did not have a field/observation component in a class felt student learning outcomes were better (2.4%). The findings indicate classes with field/observation components did not result in a perception of worse student learning outcomes when compared to those classes that did not have field/observation components (see Table 7).

Table 7

*Academic Discipline/Student Learning Outcomes*

| Academic Discipline [a, b] | | Responses | | | | |
|---|---|---|---|---|---|---|
| | | Much Better | Better | The same | Worse | Much Worse |
| | *n* | % | % | % | % | % |
| Art/Humanities/Theatre | 2 | 0 | 0 | 0 | 100 | 0 |
| Biology/Chemistry/Pre-professional | 13 | 0 | 0 | 0 | 84.5 | 15.4 |
| Business/Computer Information Systems | 5 | 0 | 0 | 60.0 | 40.0 | 0 |
| Communications | 3 | 0 | 0 | 0 | 100 | 0 |

| Discipline | n | | | | | |
|---|---|---|---|---|---|---|
| Counseling/Social Work/Human Services | 1 | 0 | 0 | 0 | 100 | 0 |
| Criminal Justice | 1 | 0 | 0 | 0 | 100 | 0 |
| Education All Areas | 2 | 0 | 0 | 50.0 | 0 | 50.0 |
| English | 3 | 0 | 0 | 0 | 100 | 0 |
| Health | 2 | 0 | 0 | 0 | 100 | 0 |
| History | 4 | 0 | 0 | 0 | 100 | 0 |
| Mathematics | 4 | 0 | 0 | 25.0 | 25.0 | 50.0 |
| Nursing | 4 | 0 | 0 | 0 | 75.0 | 25.0 |
| Political Science | 1 | 0 | 0 | 0 | 100 | 0 |
| Psychology | 4 | 0 | 0 | 25.0 | 25.0 | 50.0 |
| Social Science | 1 | 0 | 0 | 0 | 100 | 0 |
| Sustainability | 1 | 0 | 0 | 0 | 100 | 0 |
| Other Majors | 8 | 0 | 12.5 | 12.5 | 62.5 | 12.5 |

*Note.* N = 50.

[a] Disciplines with no responses: Culinary, Media studies/Broadcast/Journalism, Physics, and Women's Studies. [b] Other Majors: Computer Science/Engineering, First Year Research Seminar, part of our first year (sic) core (Reading, Discussing, Writing), Honors, Leadership, Religion.

Finally, the researcher considered the voice of the faculty as it relates to their perceptions of expectations of teaching activities, objectives, and student learning outcomes. According to the data, a total of 68% of faculty felt they met expectations of teaching activities. The results indicated (10%, *n=5*) "*Strongly Agree*," (24%, *n=12*) "*Agree*," and (34%, *n=17*) "*Neutral.*" A total of 32% indicated "*Disagree*" or "*Strongly Disagree*" (see Table 8).

Table 8

*Expectations/Student Learning Outcomes*

How would you rate the learning outcomes gained by students when comparing Emergency Remote Teaching to traditional face-to-face teaching as it pertains to spring 2020?

| | | Total | Much better | Better | The same | Worse | Much worse |
|---|---|---|---|---|---|---|---|
| The expectations of my teaching activities were achieved in spring 2020. | | *n* | 0.0 | 1.0 | 7.0 | 34.0 | 8.0 |
| | Strongly Agree | 5.0 | 0.0 | 0.0 | 3.0 | 2.0 | 0.0 |
| | | 10.0% | 0.0% | 0.0% | 42.9% | 5.9% | 0.0% |
| | Agree | 12.0 | 0.0 | 0.0 | 3.0 | 8.0 | 1.0 |
| | | 24.0% | 0.0% | 0.0% | 42.9% | 23.5% | 12.5% |
| | Neutral | 17.0 | 0.0 | 1.0 | 1.0 | 13.0 | 2.0 |
| | | 34.0% | 0.0% | 100.0% | 14.3% | 38.2% | 25.0% |

| | Much better | Better | The same | Worse | Much worse |
|---|---|---|---|---|---|
| Disagree | 14.0 | 0.0 | 0.0 | 0.0 | 9.0 | 5.0 |
| | 28.0% | 0.0% | 0.0% | 0.0% | 26.5% | 62.5% |
| Strongly disagree | 2.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| | 4.0% | 0.0% | 0.0% | 0.0% | 5.9% | 0.0% |

*Note: N=50.*

According to the data, a total of 44 % of faculty felt they met objectives of teaching activities. The results indicated (8%, *n=4*) "*Strongly Agree*," (36%, *n=18*) *"Agree,"* and (34%, *n=17*) *"Neutral."* A total of 24% indicated *"Disagree"* or *"Strongly Disagree"* (see Table 9).

Table 9

*Objectives*

| How would you rate the learning outcomes gained by students when comparing Emergency Remote Teaching to traditional face-to-face teaching as it pertains to spring 2020? | | | | | |
|---|---|---|---|---|---|

| | | Much better | Better | The same | Worse | Much worse |
|---|---|---|---|---|---|---|
| The objectives of my teaching | *n* | 0.0 | 1.0 | 7.0 | 34.0 | 8.0 |
| | Strongly agree | 4.0 | 0.0 | 0.0 | 3.0 | 1.0 | 0.0 |
| | | 8.0% | 0.0% | 0.0% | 42.9% | 2.9% | 0.0% |

| activities were achieved in spring 2020. | Agree | 18.0 | 0.0 | 1.0 | 4.0 | 13.0 | 0.0 |
|---|---|---|---|---|---|---|---|
| | | 36.0% | 0.0% | 100.0% | 57.1% | 38.2% | 0.0% |
| | Neutral | 16.0 | 0.0 | 0.0 | 0.0 | 13.0 | 3.0 |
| | | 32.0% | 0.0% | 0.0% | 0.0% | 38.2% | 37.5% |
| | Disagree | 10.0 | 0.0 | 0.0 | 0.0 | 6.0 | 4.0 |
| | | 20.0% | 0.0% | 0.0% | 0.0% | 17.6% | 50.0% |
| | Strongly disagree | 2.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| | | 4.0% | 0.0% | 0.0% | 0.0% | 2.9% | 12.5% |

Although faculty indicated an achievement of expectations and objectives of activities in the spring 2020, the faculty perception of student learning outcomes in spring 2020 compared to the accomplishment of student learning outcomes prior to spring 2020, had very different responses. Faculty responses indicated student learning outcomes ($n$=8, 16%) as *"Much Worse,"* ($n$=34, 68%,) as *"Worse,"* ( $n$=7, 14%) as *"Same,"* and ($n$=1, 2.0%) as *"Better."* (see Figure 7).

Figure 7

*Student Learning Outcomes During ERT*
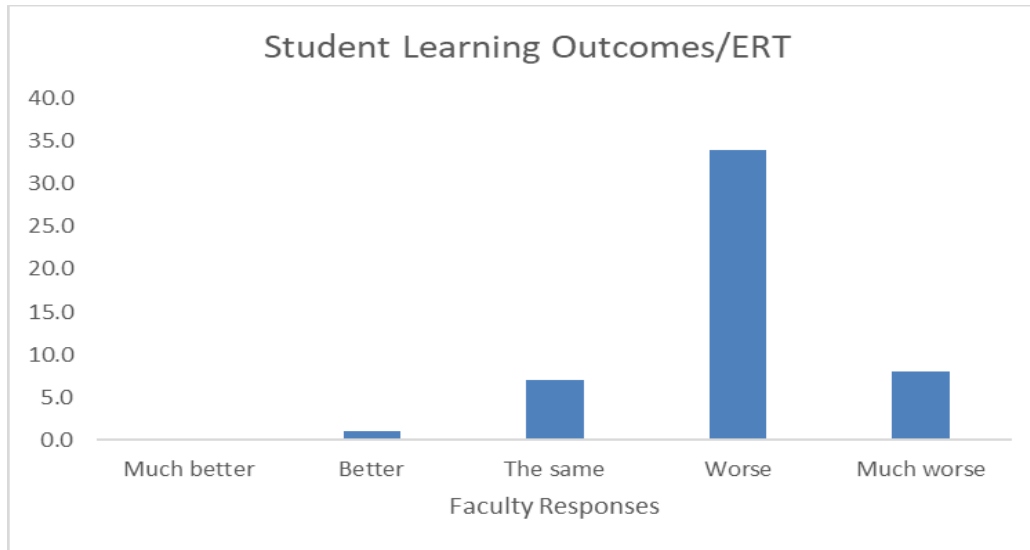


## Summary

Chapter IV presented the data collected addressing the main research question. First, Chapter IV addressed the eight sub-questions to clarify the findings for the main research question. The main research question was how do AIKCU faculty describe their experiences due to forced virtual learning caused by Covid 19 in the spring 2020 semester and how do they perceive the impact on student learning outcomes?

The researcher sent the questionnaire to Dr. O., the President of AICKU, for his assistance with disseminating the survey. In turn, Dr. O. emailed the academic officers of the 18 member AIKCU institutions. Finally, academic officers invited faculty to participate in the study. The researcher used descriptive statistics to analyze the data. When applicable, the researcher reported the mean, range, and frequency to report the data results.

Chapter V includes the researcher's interpretations of the findings, implications, and recommendations for future research. Chapter V reiterates the problem statement, methodology, sub-questions, research question, hypothesis, and discussion of the findings as they relate to the problem. Chapter V concludes with implications and recommendations for future research and the researcher's concluding thoughts.

# CHAPTER V: DISCUSSION

**Introduction**

  This chapter will review the statement of the problem, the sub-questions, and the main research question. Chapter V will reiterate the methodology and discuss the findings as they relate to the sub-questions and main research question. The chapter includes the study's limitations, implications, and recommendations for potential future research. The researcher concludes this chapter with some closing thoughts.

  The purpose of this study was to gain an understanding of college faculty experiences and perceptions of student learning outcomes during forced virtual instruction in the spring 2020 semester. The study invited faculty who taught at one of the 18-member institutions of the Association of Kentucky Colleges and Universities (AIKCU) to participate. Factors such as the discipline being taught were considered. Other factors considered were faculty experience with virtual instruction, the availability of technology for faculty and students, and support provided to faculty amid the transition to virtual instruction. The survey reviewed responses from each AIKCU respondent. This chapter includes a summary of the findings, implications revealed by the research, and potential future related research.

**Problem Statement**

  As stated in Chapter I, the definition of the problem is that Covid-19 imposed significant needs on many students, administrators, and faculty at a time when all parties were facing the unknown, creating much uncertainty. The pandemic placed students in a position to try to find ways to be successful in a challenging academic situation. It challenged faculty to try new instructional methods and to determine if the particular learning outcomes for their discipline

were even possible to grasp in a virtual format. Additionally, post-secondary administrators continue to strive to carry out the mission of impacting people's lives through higher education.

**Findings of the Study**

*Demographics*

The survey identified the following demographics based on responses. The faculty who were less than 30 years of age represented the smallest percentage of responses, 2.08%. However, all other categories were represented by more than 15% and in many cases double to triple that amount. The numbers suggest that faculty who have taught for more years may be more likely to have earned a doctorate degree and may be more willing to take the time to complete a survey to support another colleague in higher education.

Similarly to those who responded based on age, those with more years of experience teaching also had a higher response rate to the survey. Respondents who have taught 1-5 years had a response rate of 8.33%, while all other categories had a minimum of an 18% response rate. The highest response rate was from respondents with 20+ years of experience. That category had a 29.17% response rate. Again, it is speculated that respondents who have taught longer may have experienced completing a dissertation. In addition, those with 20+ years of experience likely have more life experience and are more willing to take the time to assist the researcher by completing the survey as part of the dissertation process. Gender had a reasonably even representation between females, males, and included one non-binary response. Gender responses did not present a reason to conclude that gender would have impacted the results of the survey.

**Methodology and Research Questions**

The researcher conducted a descriptive case study using the survey research method. Its purpose was to get an understanding of college faculty by identifying experiences and

perceptions of student learning outcomes during forced virtual instruction in the spring 2020 semester. The study depended on the faculty perceptions and evaluated if the discipline taught revealed an easier transition from face-to-face to virtual learning based on academic discipline.

In addition, the study's purpose was to determine if some academic disciplines may lend to virtual learning and or supplemental instruction in the future more readily than other academic disciplines based on faculty perceptions. Consequently, if a decline in student learning outcomes is acknowledged, faculty of future instruction for these same students will benefit from the information. They may desire to revisit content and supplement material to strengthen skills.

The study considered the amount of experience faculty had with virtual instruction pre-Covid-19. In addition, the study gathered the faculty's perception of the amount of technology available at the onset of the abrupt transition to virtual instruction. The survey also considered potential personal demands faculty may have faced during this challenging time in spring 2020 during Covid-19.

**Sub-Question One**

*Did faculty experience with online teaching prior to the abrupt transition to virtual instruction play a role in how well they felt the transition went?*

Findings from the data for sub-question one revealed an equal number of respondents felt their online teaching experience prior to Covid-19 and the abrupt transition to virtual instruction experience was "*Very Good*" and "*Very Poor*." Nearly as many respondents felt confident about their capabilities as not confident. A total of 27.45% of the responses also indicated a neutral answer. Recall the Chen et al. (2022) research feedback that faculty who had some experience with the traditional online format indicated more positive responses than those who did not. However, inexperience, age, and discomfort with technology proved problematic for some

faculty. Recall Table 2, faculty scored the most significant challenge to be their discomfort or lack of familiarity with required technologies and applications with 16.33% of responses choosing *"Extreme Challenge."* This case study adds to the literature regarding faculty experience and discomfort with technology and virtual instruction.

**Sub-Question Two**

*How did the shift to undergraduate virtual instruction impact the ability to develop relationships and accessibility between faculty and students in the spring 2020 semester?*

Findings from sub-question two strongly represented the voice from faculty, indicating the implementation of ERT decreased the ability to develop relationships and create connections with students. Relationship-building is critical to the instruction and mastery of student learning outcomes. A combined 90% of the respondents answered, *"Much Worse*" or *"Worse."* The remaining 10% of respondents remained *"Neutral"* or *"Disagree."* Like most public and private institutions, the 18 AICKU institutions depend on the interaction between the students and faculty. It is no surprise that connectedness was so negatively impacted based on faculty perception. The present findings concur with Casacchia et al. (2022) who conducted an anonymous survey and had 85 respondents who taught in the spring 2020. Research indicated the quality of the connection between students and faculty as the most problematic issue.

Additionally, the researcher for this case study conducted a cross-comparison of the ability to develop relationships and accessibility between faculty and students and how it correlated to perceived student learning outcomes. As anticipated, the findings revealed that the respondents who felt relationship development was compromised and connectivity was lost also felt student learning outcomes were *"Worse"* or *"Much Worse."* However, faculty who felt connectivity was not compromised or the respondent remained *"Neutral*" still indicated student

learning outcomes were *"Worse"* (100% for respondents who chose *"Neutral"* and 33.3% for respondents who indicated they did not feel connectivity was compromised). Conversely, respondents who indicated connectivity was *"Worse"* or *"Much Worse"* had a 5.9% response that student learning outcomes were *"Better,"* and the two categories combined indicated 24.7% of these same categories felt student learning outcomes were the *"Same."*

This cross-comparison ultimately implied that regardless of whether faculty felt connectivity decreased, the majority of respondents felt at best student learning outcomes stayed the "Same" and a large number felt student learning outcomes were negatively impacted by the loss of connectivity between the faculty and students. This finding underscores the faculty perception that student and faculty relationships are significant for student learning outcomes. However, it is interesting that some faculty felt connectivity rated *"Better," "Same,"* or *"Neutral,"* however, those same faculty felt student learning outcomes worsened. Perhaps, some faculty felt connectivity did not play as big a role in successful student learning outcomes as compared to other factors. A practical implication of this study is face-to-face interaction does not guarantee connectivity. Additionally, some faculty felt ERT did not impact connectivity. However, faculty also indicated a decline in student learning outcomes when instruction abruptly converted to ERT.

This case study provides support to the idea that faculty must genuinely connect to students to maximize learning for students. Results imply simply covering all planned material does not guarantee students will grasp all material to be learned without that relationship between student and faculty. Kadlecek et al. (2020) emphasized the importance of creating regular communication, connectedness, and immediacy to maximize the opportunity for mastering student learning outcomes. The present case study, like Kadlecek et al. (2020),

contributes to previously published literature regarding the importance of developing genuine communication and connectivity between students and faculty.

**Sub-Question Three**

*How did faculty respond to the forced virtual instruction professionally and personally in the spring 2020 semester?*

Findings from sub-question three represented the adjustments made by faculty. More than ninety-eight percent of faculty expressed that ERT caused extra preparation time and effort. This extra time, coupled with all the inventive approaches faculty utilized to reach students, also resulted in faculty tiredness. However, the faculty's responses made it clear there was not a loss of interest in the content they were teaching. Sixty-eight percent indicated they still had dedication to the content and sharing that information with students. It is possible that the faculty who did not express a loss in interest are the same faculty who attempted to make significant adjustments to their curriculum to improve learning opportunities. The majority of the faculty for this study, although exhausted, dedicated themselves to teaching the content even though it required extra preparation, time, and effort.

The findings for sub-question three identified that almost half of the respondents to the survey faced juggling family responsibilities while still attempting to meet career requirements. This likely meant these faculty were trying to juggle work, family, and loss of childcare, similar to the challenges college students faced during this unprecedented time.

Kirk-Jenkins and Hughey (2020) shared faculty viewpoints that they tried to do more with less, they felt inadequately prepared to make the transition to ERT and to utilize new teaching techniques. Additionally, some faculty juggled family responsibilities while also making professional adjustments. The present study reiterated the pressure that a large number of

faculty felt to serve their students and also provide for their families. The case study confirmed that faculty were dealing with many of the same personal responsibilities as the students, but also had the challenge to teach students to the best of their ability. Many faculty transitioned to an unknown format which compounded the stress and fatigue. Kirk-Jenkins and Hughey (2020) also pointed out some faculty ultimately made less due to the increase in time commitment with no additional pay, some faculty experienced a postponement in tenure, while others suffered a decrease or loss in benefits. Although this case study did not request for faculty to list these typical stresses, if faculty participating in this study experienced these same obstacles, that would magnify the stress faculty felt. At a minimum, this case study joins other literature pertaining to the challenges faculty faced both personally and professionally due to Covid-19 and the transition to ERT in spring 2020.

**Sub-Question Four**

*Did the curriculum transition easily and effectively to virtual instruction in spring 2020?*

The findings in sub-question four addressed how easily the curriculum transitioned from face-to-face to virtual instruction in spring 2020. More than one survey question addressed this sub-question. The ease, effectiveness, overall academic achievement, and academic quality were elements of this question. The survey questions considered the ease of transitioning the curriculum from face-to-face to virtual instruction. Eighty-four percent of the participants felt the transition was *"Worse, "* 68% or *"Much Worse,"* 16%. These numbers spoke to the difficulty placed on faculty transitioning their discipline to a virtual format with a small window of opportunity to make the adjustments. The findings for sub-question four evaluated the effectiveness of virtual learning, based on faculty perception. Eighty-six percent of faculty felt the effectiveness was *"Worse,"* 70% or *"Much Worse,"* 16%.

This high percentage indicates that not only were faculty faced with completely adjusting their approaches to teaching student learning objectives, but they were battling the feeling of losing effectiveness in their approaches once the transition to virtual instruction took place. Sub-question four considered faculty perception of overall academic achievement and academic quality. The findings from the data indicated 76% of responses indicated "Worse" or "Much Worse" and 84% represented "Worse" or "Much worse" to the categories, respectively.

Finally, sub-question four revealed that faculty in this particular study felt conditions worsened in ease of transitioning the curriculum, learning effectiveness, overall academic achievement, and the quality of education. However, the faculty continued to try to deliver valuable content to students.

Recall Sims and Baker's (2020) study indicated an overall faculty perception of student engagement and performance declined during the Covid-19 pandemic. In the Kaczmarek et al.'s (2020) study, 52% of the faculty surveyed felt student learning worsened. This case study contributes to the research previously conducted. The data supports previous findings that some faculty members felt lost in the new virtual approach to instruction. The unfamiliarity with ERT instruction negatively impacted overall academic achievement, academic quality, and ultimately student learning outcomes. Ultimately, the research from this case study confirmed a large percentage of faculty in this study perceived that ERT in spring 2020 produced negative academic experiences and results. This study joins the other literature previously available as a source to gain an understanding of faculty perception regarding the transition of the curriculum, learning effectiveness, overall academic achievement, and the quality of education.

**Sub-Question Five**

*Was academic integrity maintained during virtual instruction compared to traditional face-to-face instruction during the spring 2020 semester?*

Sub-question five gathered the perception of faculty regarding whether academic integrity was maintained during virtual instruction as compared to traditional face-to-face instruction during spring 2020. Recall Daniels et al. (2021) indicated concern for an increase in cheating once testing transitioned to virtual delivery. Additionally, Oliveira et al. (2020) reported concern for student honesty when testing. Faculty expressed frustration about developing their new testing to attempt to reduce fraudulent actions by students when testing.

The findings from the present study indicated that 50% of the respondents felt academic integrity decreased once instruction transitioned to virtual instruction as compared to face-to-face instruction. These findings were significant and supported by other research. Conclusively, faculty should consider if students actually grasped the student learning outcomes or if students found ways to provide correct responses when being tested but potentially were not fully comprehending the material. Additionally, the fact that 50% of faculty felt that a decrease in academic integrity was likely plays a role in students' mastering concepts in certain academic disciplines. There may be a need in the future to develop or utilize an existing instrument to determine the starting knowledge level of students for each academic discipline.

**Sub-Question Six**

*How prevalent was online learning prior to Covid-19 at AIKCU institutions?*

Sub-question six focused on the prevalence of online learning at the respondents AIKCU institution in the respondent's academic discipline prior to Covid-19. The researcher chose to position the question to refer to the faculty member's academic discipline rather than the entire

institution's offerings. The findings indicated that 72.55% of respondents answered that their institution did not offer online instruction in their specific academic discipline prior to Covid-19, while 27.45% indicated that their institution offered their academic discipline in an online format prior to Covid-19. The findings also imply that almost three-fourths of the faculty for this survey were faced with offering their academic discipline in a virtual format for the first time.

Recall the Lee et al. findings (2021), where faculty incorporated the response that knowledge to function effectively online was one of the greatest challenges, faculty from this case study echoed some of those same feelings due to lack of exposure to online teaching and the absence of the online structure for their academic discipline being utilized at their institution prior to spring 2020. This case study adds to previous literature and provides insight from faculty who had very limited exposure to virtual instruction prior to March 2020.

**Sub-Question Seven**

*When colleges and universities implemented virtual instruction, how much support was provided in the spring 2020 semester regarding virtual tutoring opportunities and technology accessibility?*

Sub-question seven determined faculty perception of the level of institutional support the respondent felt they received as it relates to virtual tutoring opportunities and technology accessibility once implementation of virtual instruction occurred. The survey findings provided evidence of feeling supported. More than 83% of the respondents gave favorable marks for the virtual tutoring opportunities and technology accessibility. This study establishes a large percentage of AICKU faculty felt supported by virtual tutoring opportunities and technology accessibility. Additionally, feedback from the survey indicates faculty developed creative ideas

quickly and had the creative freedom to implement new ideas and alter other techniques in an effort to develop instructional assistance.

**Sub-Question Eight**

Sub-question eight examined, based on faculty perception, if instructional assistance was implemented due to the pandemic and will likely be kept as part of an instructional method in the future after the pandemic is considered "controlled." Findings indicated that faculty expressed some success with virtual office hours, synchronized class meetings, and web conference tools. As previously indicated in Chapter IV, survey participants also wrote in valuable information regarding tools that were utilized and will likely be kept, with the exception of voice-over PowerPoint presentations.

Those open-ended responses are:

> *"We began filming our labs and collecting data for students to process after watching the videos. I also created a "Choose your own adventure" style qualitative analysis lab in Canvas. We now use these for students with extended absences or in quarantine."*
>
> *"Anonymous Zoom polls"*
>
> *"Socrative online polls"*
>
> *"Flip Grids"*
>
> *"Increased telephonic availability to students"*
>
> *"Google Classroom"*
>
> *"Building out my Blackboard courses to be more than just places to submit assignments."*

*"I will Zoom guest speakers, rather than limiting to those who can come to*

*campus. When I had Covid this year, I taught classes and held paper*

*conferences by Zoom."*

Recall the research of Oliveira et al. (2020) that indicated faculty could recognize the

potential for new content development and delivery in the future. This case study joins previous

literature as a source to confirm faculty perceived that some positive tools and approaches

developed out of necessity during ERT and could be utilized in future instruction.

**Main Research Question**

The main research question was: *How did AIKCU faculty describe their experiences due*

*to forced virtual learning caused by Covid 19 in the spring 2020 semester and how did they*

*perceive the impact on student learning outcomes?*

This case study focused on AICKU faculty experiences due to forced virtual learning

caused by Covid-19 in the spring 2020 and the perceptions of the impact made on student

learning outcomes. Faculty shared both professional and personal experiences. A number of

questions throughout the survey gathered those responses. Questions regarding student learning

outcomes included many academic disciplines including courses with clinicals, hands-on

experience, and field components.

A number of the sub-questions addressed faculty experience; however, it is worth

reiterating the faculty perception of the events that unfolded. Of the faculty surveyed only

19.61% had taught an online course before. ERT proved to be more demanding than a course

intended to be online from the start of the semester. This placed these faculty at a disadvantage

immediately. Not unlike Sims and Baker's (2020) findings, if faculty were already familiar with

virtual instruction, faculty expressed little to no difference to the changes ERT required.

However, if faculty had no experience with online teaching, ERT placed additional demands, impacted designing and converting content to a virtual format, and ultimately impacted student learning (Sims & Baker, 2020). With such a low percentage of AICKU faculty respondents teaching online previously, Sims and Baker's research reinforces the difficult experiences and turmoil faculty felt.

For example, respondents from this case study indicated required technology skills for ERT versus face-to-face instruction proved to be more challenging. A total of 94% of respondents indicated they *"Agreed"* or *"Strongly Agreed"* that demand for technological knowledge increased. This case study also shared 98% of the respondents felt the demand for additional preparation occurred. Seventy-eight percent of respondents revealed they had more difficulty with ERT and 90% indicated the level of effectiveness declined. So while other literature indicated students felt instructors lacked virtual knowledge and the ability to utilize virtual instruction effectively (Davis et al., 2022), students did not have access to view all the struggles and additional efforts faculty juggled in an effort to provide a continued quality education. Also, to reiterate, Kirk-Jenkins and Hughey (2020) detailed the family and professional struggles faculty faced during the spring 2020 semester once Covid-19 caused a transition from face-to-face learning to ERT. Again, students focused on their challenges, but many failed to realize all the adjustments faculty faced too.

The AICKU faculty in this case study stayed committed to the content of their academic discipline. A total of 68% indicated they did not lose an interest in their content. AICKU faculty (44%) felt they met the objectives of their course. Yet, faculty (76%) in this case study felt overall academic achievement for students worsened. Further, 84% of AICKU faculty respondents indicated the overall quality worsened. Casacchia et al. (2021) echoed some of these

same findings from faculty responses. In the Casacchia et al. (2021) survey, 70% of the faculty responses indicated that they experienced a loss of satisfaction from things previously done, lost interest in others, and an increase in irritability. In addition to the challenges faculty faced, a study by Blankenberger and Williams (2020) showed that faculty felt forced virtual learning created difficulty in accurately assessing student progress and student learning. This lack of accurate assessment could make it difficult for faculty to evaluate whether students met learning outcomes.

As a result of previous literature reporting faculty could not assess student learning outcomes accurately, this case study also provided the faculty perception of the student learning outcomes and how students mastered them. This case study determined faculty perceived student learning outcomes as *"Worse"* or *"Much Worse"* in almost every academic category. However, the responses of Business/CIS faculty (60%) indicated that student learning outcomes were the *"Same."* This indicates online learning and some of the approaches placed out of necessity could be duplicated and utilized in future instruction when the academic discipline is Business/CIS related material.

The findings also revealed responses by Education faculty indicated that 50% felt student learning outcomes produced the *"Same"* learning outcomes compared to face-to-face student learning outcomes. This information could be utilized in the future for Education courses. Mathematics (25%) and Psychology (25%) faculty indicated student learning outcomes were the *"Same."* The findings for these two majors would not appear high enough to promote the same online instruction in the future, but with adjustments, more online instruction may be successful in these two academic disciplines.

Conversely, the findings revealed that biology faculty and nursing faculty had the strongest responses in the categories o*f "Worse"* and *"Much Worse."* These responses echo the cross-comparison conducted that resulted in a higher percentage of faculty who teach labs expressing that student learning outcomes were worse for those disciplines when compared to the disciplines without labs and hands-on experiences.

Recall Barton's (2020) research that modifications to field and hands-on experience to traditional field experience caused a decline or complete void in student learning outcomes. The findings of this case study join previous literature to indicate that student learning outcomes did change during spring 2020 when face-to-face learning transitioned to virtual instruction. The findings suggest that the discipline itself did not appear as a factor in determining the change in student learning outcomes, with one or two exceptions. Subject that depended on lab and/or hands-on components indicated an even higher percentage of faculty who felt student learning outcomes were *"Worse"* or *"Much Worse"* when compared to those faculty responses representing non-lab and/or hands-on courses.

Consequently, Covid-19 greatly contributed to the void in student learning outcomes for all academic disciplines in this particular research. Although those courses with labs and hands-on experience may have been slightly more impacted based on faculty responses. Measuring student learning outcomes is a necessary result to measure. However, this research and supporting literature makes it even more evident that we must also focus on the impact that has taken place on student learning and the content that will not been mastered as we move forward.

**Limitations of the Study**

As mentioned in Chapter III, web-based surveys present limitations. Although surveys offer many advantages, disadvantages also exist. Bell (1996) observed that biases may occur,

either in the lack of response from intended participants or in the nature and accuracy of the responses received. In addition, an error may occur when respondents intentionally misrepresent answers to conceal inappropriate behavior. Finally, respondents may have difficulty assessing their behavior or have poor recall of the circumstances surrounding their behavior.

The researcher depended on each institution's chief academic officer to distribute the online survey. Although 18 members constitute the AIKCU institutions, the institutions vary a great deal in size, location, endowment, program offerings, and operating budgets. Some of the institutions have more established online programs and/or course offerings which presented less of a problem for adaptation to forced virtual instruction and successfully reaching anticipated student learning outcomes. Since sampling was not random, the responses may have been skewed by one institution providing more responses than others which would limit the amount of information gained collectively representing the AIKCU faculty opinions. It is likely responses did not represent all 18 AIKCU member institutions.

**Implications of the Study**

The case study findings add to the growing body of literature on Covid-19 and the impact it has and will have on higher education in the areas of students, administrators, and faculty. Before considering the implications the abrupt transition from face-to-face instruction to virtual instruction in the spring 2020 semester had on students and faculty, it is important to consider what this same time frame meant to those in leadership roles. Every challenge created by Covid-19 in March 2020 caused the need for leaders to react quickly on behalf of students and faculty as well as their institutions.

College administrators exhibited the epitome of adaptive leadership when Covid-19 hit so abruptly in March 2020. Northouse (2019) shared adaptive leadership often begins with leaders

"getting on the balcony" to determine the type of challenge they are facing. In this instance, higher education leaders had to move quickly in an effort to respond to adaptive challenges that were also changing quickly. Northouse (2019) defined adaptive challenges as problems that are not clearly defined or easy to identify, and which do not have a clear solution. So many different moving parts existed that had to be identified by leadership. During this same unprecedented time, administrators had to empower those leaders who were direct reports and dealt more closely with students and faculty to put plans in motion as they saw necessary to protect and then educate students. Northouse (2019) called for leaders to focus on work that people should be doing and then energize, mobilize, and motivate these people especially when there is not a clear solution. Ultimately in adaptive leadership, leaders should realize emotions will likely be higher due to the uncharted territory. Northouse (2019) indicated adaptive leadership required administrators to remove themselves from the problem and trust those who would be doing the best work and are in the direct line of the problem to make decisions to tackle the tough situations. This is not to say that leaders are inattentive and uninvolved in events occurring, but at some point, adaptive leadership calls for leaders to provide support, information and guidance to their subordinates. Those subordinates must also be willing to listen to feedback from those employees on the front line and must be willing to protect them as they provide information regarding developing challenges. The most likely way for adaptive leadership to work is everyone involved has to be willing to work on the unchartered events to combat the challenges collectively. Other than leadership focused on protecting the health of students, faculty and staff, faculty had likely the next greatest responsibility of how to continue to educate their students with such a change in environment occurring in March 2020. Therefore, while senior leadership likely focused on the larger picture of safety and finances, it became even more critical for

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faculty to feel empowered to make adjustments in teaching techniques in an effort to combat the unpredictable events brought on by the abrupt transition of instruction from face-to-face to a virtual format.

As a result, faculty adapted teaching styles and medians to communicate with students once face-to-face instruction abruptly transitioned to virtual instruction. Many instructors made valent efforts to accomplish the student learning outcomes of their classes. However, the case study reveals that faculty perceived the mastery of student learning outcomes as unaccomplished during the spring 2020 semester. Although this research was limited in responses, faculty voices were heard regarding student success and achievement.

This case study provides important information that leads to the conclusion that some students likely did not master all student learning outcomes. This lack of understanding some concepts may result in difficulty for students in future classes. This challenge may cause students to question their abilities to matriculate to college graduation. Such difficulty will continue to make a college education less attractive. If students begin to look for shorter educational opportunities such as certificates or going directly into the workforce, institutions will suffer a negative impact on two fronts: retention and recruitment in the future.

As much as college-level students struggled with learning content, Kadlecek et al. (2021) reported that high school students faced the same difficulties with student learning outcomes. These deficiencies will only be compounded for those students pursuing a college education. A number of high school students who have recently graduated, or will graduate in 2023 have, in many cases, been learning virtually for more than two years. Like many college students who did not master student learning outcomes at the typical standard level due to restrictions of COVID-19, this deficit impacted high school students even more. Students have missed out on

foundational instruction that is required to be successful in college. This lack of preparedness may impact students' confidence in their capability to be successful in college and therefore may shrink the pool of viable college recruits in the future. It would only stand to reason that if student learning outcomes went unachieved at the normal acceptable level in spring 2020, then that produced under-prepared students moving forward. According to Millea et al. (2018), although there are many contributing factors to student retention, lack of college-ready preparedness is one of the leading causes negatively impacting matriculation.

As already stated in the review of the literature, some institutions are hemorrhaging due to a loss in revenue, including a decline in enrollment. Institutions cannot afford to also suffer from a loss of student retention. Institutions will have to be willing to implement new ideas for student learning and find ways to provide supplemental instruction where deficits in student learning outcomes have occurred. However, the need for additional student support will also require additional funding in the areas of tutoring, advising, and supplemental instruction. These necessities may be difficult to provide if an institution has already been stifled by a loss in revenue due to a decline in enrollment and retention.

So while administrators will be faced with making sure the availability of funds exist for remediation when necessary, financial support to grow online options will be necessary as well in the future. This online format born out of necessity has allowed so many students to provide their own financial support by working while still earning a college education on their time. Chen et al. (2022) actually shared faculty and students reported so many positive experiences from the adjustments, which in their opinions, enhanced learning, that the particular institution in their study implemented more online options the following semester, and those courses filled

more quickly than traditional face-to-face offerings. Faculty who had some experience with the traditional online format indicated more positive responses than those who did not.

However, inexperience, age, and discomfort with technology proved problematic for some faculty (Chen et al., 2022). This desire for more online options will only exacerbate the stress and frustration some faculty may feel who have already expressed a discomfort with the online format due to lack of technological experience. These implications create a cycle of future adjustments that may be required. This study also revealed the challenge that those faculty who are not comfortable with online instruction and all the knowledge required to operate technology tools, will require training and an opportunity to experiment. This revelation takes one back to the point that leadership responsible for professional development workshops and faculty training must be prepared to adapt to the situation and meet faculty at their skill level and attempt to develop and improve it quickly. It will also likely be important for that leader or leaders to spend time in conversation to determine the fears that exist in an effort to combat those as a priority. Without this adjustment to training for those faculty less confident in online instruction, the world of higher education may lose some strong educators due to the constant uncomfortableness that would exist. Equally as important, these same institutions may fail to offer competitive online courses and fall behind other institutions.

Finally, due to all the changes to educational instruction that Covid-19 initiated in March 2020, colleges and universities may also be faced with determining if it is time to incorporate certificate programs and technical programs into their curriculum. As students continue to look for shorter programs that provide opportunities for gainful employment, more high school graduates and non-traditional students are considering or selecting this path. Again, this will require an investment that some institutions may not be able to fund. Additionally, many colleges

and universities are dedicated to the concept of a liberal arts education and the act of implementing technical programs and certificates would go against this foundation.

**Recommendations for Future Research**

This case study lent a voice to faculty. The understanding of their experiences and perceptions during the Spring of 2020 allows for institutions and administrators moving forward to consider adjustments and supplemental instruction. However, the literature reviewed regarding the impact ERT had on students in spring 2020 at these same institutions would be beneficial as well.

While faculty voices indicated much frustration, fatigue, and lack of accomplishing student learning outcomes, student voices, in most cases, gauged the situation to be even worse. Kaczmarek et al. (2020) surveyed faculty and students simultaneously. While 52% of faculty indicated student learning outcomes worsened, 70% of the students responded that student learning outcomes worsened. In this same study, 55% of faculty thought student engagement worsened and 54% of students felt the same. Also, Kaczmarek et al. (2020) found 52% of faculty reported burnout, and 72% of students indicated burnout.

Singer-Freeman et al. (2021) shared that 56% of students felt faculty were not familiar enough with technology to make the switch to virtual instruction, while 52% of students indicated they felt faculty simply used activities planned for face-to-face interaction and offered it in a virtual format that did not work. Almedingen et al. (2020) concluded 75% of the students surveyed felt life in general became harder due to ERT and 71% specifically mentioned learning outcomes were much harder to accomplish.

Conrad et al. (2021) conducted research via a survey. Their research reiterated students felt overloaded, had a lack of instructor availability, and perceived faculty inadequacies

regarding virtual instruction experience. Daniels et al. (2021) echoed these same findings. Students indicated a lack of motivation to achieve goals and engage. These same students also indicated a decrease in academic success resulting in an increase in cheating.

Based on the synthesis of previous research, it would be beneficial for future research to be conducted on actual student grades during the same time frame. It would be valuable for the information to be collected from the same 18 AIKCU member institutions and collect the actual grades for students. It may be beneficial to determine if students' grades declined or did students earn similar grades as prior to the pandemic even though the respondents in this case study felt student learning outcomes were *"Worse"* or *"Much Worse."*

Future research may also include inviting students from the 18 AIKCU member institutions to complete a survey with similar questions. However, the questions would be revised to collect the student's perception during spring 2020 once colleges and universities transitioned to virtual learning due to Covid-19. This information may reveal students and faculty experiences and perceptions during the spring 2020 semester once ERT was implemented may both be negative, but will they statistically be close to the same results.

It would likely be beneficial to survey students who withdrew and did not return and also to survey students who took a leave of absence for a short time. Students may be willing to share why they left and did not return. It would be interesting to determine if some students enrolled in shorter certificate or technical programs. Other students could shed some light on why they took a leave for a period of time and what contributed to their return.

Finally, this case study collected respondents email for the purpose of discussing additional information. Participation was optional but a number of respondents agreed to follow up. It would be beneficial to revisit the faculty members who agreed to discuss more information

and determine their thoughts today, three years later. It would be valuable to determine if faculty still felt the main concerns in March 2020 reported on the survey were still relevant or have other concerns surfaced that are more pressing for faculty present day.

**CONCLUSION**

Covid-19 impacted the world of higher education in a number of areas. Since the pandemic moved very quickly and only happened recently, initially years of research did not exist to glean information from that is often common in other research. Researchers began to collect data by seeking input via surveys from students, faculty, and administrators.

Previous literature provided a path for this research. For example, Lee et al. reinforced and strengthened the findings for this case study. Lee et al. (2020) surveyed 243 faculty. The responses indicated faculty identified internet connectivity, technology difficulties, technology equipment issues, difficulty in reaching students and a lack of knowledge to function effectively online all to be problematic. Lee et al. (2020) also shared that faculty faced personal and emotional challenges requiring extra time and effort. This group of faculty focused on the difficulty associated with group projects, collaborative learning, and hands-on labs or studios that limited student learning outcomes.

Based on the information from previous literature regarding Covid-19's negative impact on student and faculty engagement, lack time to adjust the curriculum to better fit the demands of virtual learning, and the loss of true collaboration and learning, the results of this case study echoes previous research findings. Not one discipline indicated student learning outcomes improved once face-to-face learning transitioned to virtual instruction (Lee et al., 2020). I was reminded of my belief in the value of higher education when I saw the measures many faculty went to in order to continue to educate students to their best ability. That also lends to my fear.

This case study confirmed faculty are tired. Covid-19 extended students, administrators, and faculty. As the world of traditional face-to-face education appears to be returning to some sense of "normal," there is concern that institutions are attempting to return to the status quo.

Students may look the same, and for faculty, there is likely a hunger to return to previous instruction that proved to enable students to master student learning outcomes. However, the students coming into colleges and universities today differ from pre-Covid-19 students. These students are coming in with larger gaps in fundamental skills, more emotional struggles, and a lack of communication skills. Singer-Freeman et al. (2020) shared literature that 65% students from their research felt additional instructor support would be needed in the future for success. Sixty-one percent of these same students indicated a need for instruction on how to be a better virtual learner.

Previous literature also provided some positive information that could be utilized to encourage student success when comprehending student learning outcomes. Reid et al. (2022) gleaned from their research that when students had clearer communication, they took more responsibility for their course work and operated more independently. Kalecek et al. (2020) shared students thrived in an environment where faculty initiated contact and regular communication with the student outside of virtual courses in the spring 2020. Kalecek et al. (2020) also concluded that this regular communication increased the opportunity for connectedness and immediacy to maximize the opportunity for mastery of student learning outcomes.

Reflecting on the sub-questions of this case study makes it clear that educators and administrators must revisit the importance of relationship building, utilizing different techniques to reach academic achievement and student learning outcomes. Students today will likely require

more attention, grace, patience, and support than has ever been required of any of the colleges and universities in years past.

Additionally, in this case study and literature reviewed in this study, it is important to remember the toll Covid-19 and ERT took on the faculty. Faculty lost the ability to offer any hands-on, clinical, or field experience. Any efforts made to suffice for the loss provided no equivalency in an effort to teach the expected student learning outcomes (Barton, 2020). Oliveira et al. (2021) surveyed faculty and learned of their appreciation for institutions for turning to virtual instruction rather than shutting down completely. In turn, Oliveira et al. (2021) learned faculty increased interaction with students outside of schedule online class times.

Other literature and the results from this case study indicated faculty grew tired, struggled to deal with all the adjustments, and felt the same pressures students felt during the spring 2020 semester. Just as students will likely require supplemental instruction and support, it would be wise for institutions to also realize faculty endured an unprecedented event and the pressure and exhaustion that goes with it.

Unfortunately, we know many institutions suffered catastrophic losses of funds due to a decline in enrollment, extracurricular event revenue, and endowment funds. Faculty from this case study indicated positive adjustments made that will likely be kept. This creates a need for more funding and support. Students indicated a need for supplemental instruction and review of student learning outcomes unaccomplished in the spring 2020 semester. All of these initiatives will likely require more funding.

If colleges and universities refuse or fail to adjust and meet needs, the loss will impact the institutions. However, failure to adjust will encompass all aspects of higher education. Potentially strong faculty may leave the profession due to burnout and a perceived lack of

support. Students will not experience the most positive teaching methods that developed during ERT in spring 2020, and some institutions may be forced to close their doors forever.

Although Covid-19 hit abruptly, and administrators and faculty made well intended adjustments as quickly as possible, we will see the negative impact of Covid-19 on the world of higher education for years to come. Without some acknowledgement of the lasting negative impact Covid-19 coupled with ERT made in the spring 2020, students present, and future will bear the brunt of Covid-19 for years to come.

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**APPENDIX A**

Greetings. This survey focuses on faculty teaching at institutions that are members of AIKCU.

The purpose of the survey is to collect the faculty perception regarding student learning

outcomes during spring 2020. The survey is also to collect feedback regarding demographics,

and additional stresses placed on the faculty including access and support as it pertains to the

technology available when all courses were transitioned to Emergency Remote Learning (ERT)*

*ERT is an abrupt transition that is quite different than regularly perceived traditional online

learning. The term ERT developed due to the phenomenon caused by Covid-19 in spring 2020.

This survey consists of 43 questions. The questions are primarily Likert-style with a few matrix

questions, and fill in the blanks. The survey should take 10 minutes. If you depart from the

survey before it is complete, you will be able to return to the same link and continue. This survey

is a critical piece of my research for my dissertation. I am grateful for your willingness to

participate. By continuing with this survey, you are agreeing to the following Informed Consent

document:

# APPENDIX B

**INFORMED CONSENT DOCUMENT**

**Project Title:** Recruitment Strategies for College Admissions
**Investigator:** Hanna Van Winkle, hanna.vanwinkle@wku.edu
Trevor Herald, trevor.herald742@topper.wku.edu
Te'Onnika Hollowell, teonnika.hollowell892@topper.wku.edu

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you agreement to participate in this project.
**You must be 18 years old or older to participate in this research study.**

In this document, I will explain in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may email any questions you have to help you understand the project.

If you then decide to participate in the project, please click the button below to give your consent and continue to the survey. Please print this page if you would like to keep a copy of this form.

1.     **Nature and Purpose of the Project:** The purpose of this study is to become aware of the preferred communication methods students would like admissions to utilize and how these strategies may be affected by the COVID-19 pandemic. This information could assist with future recruitment strategies.

2.     **Explanation of Procedures:** You are being asked to complete a short survey regarding communication methods you would prefer for admissions to use and how COVID-19 effected it. Participation in this survey is voluntary and it should only take approximately 10-15 minutes to complete.

3.     **Discomfort and Risks:** There are no foreseen risks or discomfort associated with participating in this study.

4.     **Benefits:** While there are no direct benefits to you as a student, we do feel that this knowledge will help identify the needs of the students, the communication methods that will be better effective and how COVID-19 affected your college career . We hope to grow our knowledge of how changes can be made to benefit and serve the needs of all students at Western Kentucky University.

5.     **Confidentiality:** Any information that you provide will be anonymous; none of the information collected will be personally identifiable or linked to you in any way. Records will be viewed, stored, and maintained in private, secure files only accessible by the P.I. and advising faculty for three years following the study, after which time they will be destroyed.

6.     **Refusal/Withdrawal:** Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

*You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.*

### *Your continued cooperation with the following research implies your consent.*

Faculty perception of the impact Covid-19 made on SLOs depending on academic disciplines

Start of Block: Informed Consent

Greetings This survey focuses on faculty teaching at institutions that are members of AIKCU. The purpose of the survey is to collect the faculty perception regarding student learning outcomes during spring 2020. The survey is also to collect feedback regarding demographics, and additional stresses placed on the faculty including access and support as it pertains to the technology available when all courses were transitioned to Emergency Remote Learning (ERT)* *ERT is an abrupt transition that is quite different than regularly perceived traditional online learning. The term ERT developed due to the phenomenon caused by Covid-19 in spring 2020. This survey consists of 43 questions. The questions are primarily Likert-style with a few matrix questions, and fill in the blanks. The survey should take 10 minutes. If you depart from the survey before it is complete, you will be able to return to the same link and continue. This survey is a critical piece of my research for my dissertation. I am grateful for your willingness to participate. By continuing with this survey, you are agreeing to the following Informed Consent document:

Q1 Did you teach at least one face-to-face class in spring 2020 that was transitioned to Emergency Remote Teaching (ERT)?

o   Yes  (1)

o   No  (2)

Q2 How many classes did you teach in spring 2020?

o   1 class

o   2 classes

o   3 classes

o   More than 3 classes

Q3 What was your appointment status in the spring 2020 semester?

o   Full-time faculty tenure track

o   Full-time faculty non-tenure track

o   Part-time faculty

o   Other (please indicate in space below)

_____

Q4 Which institution were you associated with in spring 2020?

o   Do not wish to respond

o   Alice Lloyd College

o   Asbury University

o   Bellarmine University

o   Berea College

o   Brescia University

o   Campbellsville University

o   Centre College

o   Georgetown College

o   Kentucky Christian University

o   Kentucky Wesleyan College

o   Lindsey Wilson College

- Midway University

- Spalding University

- Thomas More University

- Transylvania University

- Union College

- University of Pikeville

- University of the Cumberlands

Q5 Please indicate the academic discipline(s) you taught in spring 2020.

- ☐ Art/Humanities/Theatre  (1)

- ☐ Biology/Chemistry/Pre-professional  (2)

- ☐ Business/ Computer Information Systems  (3)

- ☐ Communication  (4)

- ☐ Counseling/Social Work/Human Services  (5)

- ☐ Criminal Justice  (6)

- ☐ Culinary  (7)

- ☐ Education/Elementary, Middle, Secondary, Physical Education, Art, Music Education

(8)

- ☐ English  (9)

- ☐ Health  (10)

- ☐ History  (11)

- ☐ Mathematics  (12)

- ☐ Media Studies/Journalism/Broadcast  (13)

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☐ Nursing  (14)

☐ Physics  (15)

☐ Political Science  (16)

☐ Psychology/Sociology  (17)

☐ Recreation/Tourism/Sports Management  (18)

☐ Social Sciences  (19)

☐ Sustainability  (20)

☐ Women's studies  (21)

☐ Other (please indicate in space provided)  (22)

_____

Q6 Did your class(es) have a clinical/lab component?

○ Yes  (1)

○ No  (2)

Q7  In the response to the Covid-19 pandemic in spring 2020, did you in accordance with your institution:

○ Remove clinical/lab-based learning outcomes or objectives of the course to accommodate a changed mode of instruction? (1)

○ Reduce clinical/lab-based learning outcomes or objectives of the course to accommodate a changed mode of instruction? (2)

○ Switch from clinical/lab-based learning outcomes in the lab to teaching them Emergency Remote Teaching format. (3)

Q8 The assessed learning outcomes or objectives of your course(s) that include a lab component as typically taught are best described as:

- o   Not dependent on clinical/lab components. (1)

- o   Minimally dependent on clinical/lab components. (2)

- o   Largely dependent on clinical/lab components. (3)

- o   Wholly dependent on clinical/lab components. (4)

Q9 Did your class(es) have a field/observation component?

- o   Yes  (1)

- o   No  (2)

Q10 The assessed learning outcomes or objectives of your class(es) that include field/observation components as typically taught are best described as:

- o   Not dependent on field/observation components. (1)

- o   Minimally dependent on field/observation components. (2)

- o   Largely dependent on field/observation components. (3)

- o   Wholly dependent on field/observation components. (4)

Q11  In response to the Covid-19 pandemic in the spring 2020 semester, did you in accordance with your institution:

- o   Remove field-based learning outcomes or objectives of my course to accommodate a changed mode of instruction? (1)

- o   Reduce field-based learning outcomes or objectives of the course to accommodate a changed mode of instruction? (2)

- o   Switch from field-based learning outcomes in the field to Emergency Remote Teaching? (3)

o   Switch from field-based learning outcomes in the field to Emergency Remote Teaching but still in the field? (4)

o   Make no changes because I was already teaching in a traditional online format?  (5)

Q12 I have taught an online class that was intended to be online from start to finish prior to spring 2020.

o   Yes  (1)

o   No  (2)

Q13 My institution was already offering an online delivery method for classes in my academic discipline prior to spring 2020.

o   Yes  (1)

o   No  (2)

o   Do not know  (3)

Q14 My assessment of my online teaching skills prior to spring 2020 is:

o   Very Good  (1)

o   Good  (2)

o   Neutral  (3)

o   Poor  (4)

o   Very Poor  (5)

Q15 **\*ERT is an abrupt transition that is quite different than regularly perceived traditional online learning. The term ERT developed due to the phenomenon caused by Covid-19 in spring 2020.**

The technology skills needed to do **Emergency Remote Teaching (ERT)*** vary from those needed in face-to-face instruction.

- o   Strongly agree  (1)
- o   Agree  (4)
- o   Neutral  (5)
- o   Disagree  (6)
- o   Strongly disagree  (7)

Q16 **Emergency Remote Teaching** required an additional amount of preparation time and effort in spring 2020.

- o   Strongly agree  (1)
- o   Agree  (2)
- o   Neutral  (3)
- o   Disagree  (4)
- o   Strongly disagree  (5)

Q17 Covid-19 caused an overlap of teaching and family responsibilities for me personally during **Emergency Remote Teaching** in spring 2020.

- o   Strongly agree  (1)
- o   Agree  (2)
- o   Neutral  (3)
- o   Disagree  (4)
- o   Strongly disagree  (5)

Q18 I lost interest in the content of my class(es) from doing all my teaching online in spring 2020:

- o Strongly agree  (1)
- o Agree  (2)
- o Neutral  (3)
- o Disagree  (4)
- o Strongly disagree  (5)

Q19 I felt tired from doing all my teaching online in spring 2020:

- o Strongly agree  (1)
- o Agree  (2)
- o Neutral  (3)
- o Disagree  (4)
- o Strongly disagree  (5)

Q20 I observed a decline in academic integrity from students once instruction went to **Emergency Remote Teaching** in spring 2020.

- o Strongly agree  (1)
- o Agree  (2)
- o Neutral  (3)
- o Disagree  (4)
- o Strongly Disagree  (5)

Q21 The expectations of my teaching activities were achieved in spring 2020.

- o  Strongly agree  (1)

- o  Agree  (2)

- o  Neutral  (3)

- o  Disagree  (4)

- o  Strongly disagree  (5)

Q22 The <u>objectives</u> of my teaching activities were achieved in spring 2020.

- o  Strongly agree  (1)

- o  Agree  (2)

- o  Neutral  (3)

- o  Disagree  (4)

- o  Strongly disagree  (5)

Q23 I had more difficulties with **Emergency Remote Teaching** than face-to-face traditional

teaching in spring 2020:

- o  Strongly agree  (1)

- o  Agree  (2)

- o  Neutral  (3)

- o  Disagree  (4)

- o  Strongly disagree  (5)

Q24 The level of connectedness declined between faculty and students once instruction

transitioned to **Emergency Remote Teaching** in spring 2020.

- o  Strongly agree  (1)

- o  Agree  (2)

- o  Neutral  (3)

o   Disagree  (4)

o   Strongly disagree  (5)

Q25 Using **Emergency Remote Teaching** in spring 2020 encouraged me to use technology in future semesters.

o   Strongly agree  (1)

o   Agree  (2)

o   Neutral  (3)

o   Disagree  (4)

o   Strongly disagree  (5)

Q26 When you moved to **Emergency Remote Teaching** and learning in spring 2020,  which, if any, of the following technology tools worked successfully for you? (Mark all that apply)

☐   Canvas LMS  (1)

☐   Blackboard/Course Web  (2)

☐   Zoom  (3)

☐   Other  (4) _____

Q27 When you moved to **Emergency Remote Teaching** and learning in spring 2020, which, if any, of the following teaching strategies worked well for you? (Mark all that apply)

☐   Using Web Conferencing tools (e.g., Zoom, Blackboard, Collaborate, Canvas). (1)

☐   Virtual office hours  (2)

☐   Recorded video lectures/recorded audio lectures/podcasts/Voice-over PowerPoint

presentations  (3)

☐   Discussion boards  (4)

☐ Other (please provide answer below if applicable)  (5)

_____

Q28 How would you rate the learning outcomes gained by students when comparing **Emergency**

**Remote Teaching** to traditional face-to-face teaching as it pertains to spring 2020?

○ Much better  (1)

○ Better  (2)

○ The same  (3)

○ Worse  (4)

○ Much worse  (5)

Q29 How would you rate the effectiveness of teaching when comparing **Emergency Remote**

**Teaching** to traditional face-to-face teaching as it pertains to spring 2020?

○ Much better  (1)

○ Better  (2)

○ The same  (3)

○ Worse  (4)

○ Much worse  (5)

Q30 The overall academic achievement level of students with **Emergency Remote Teaching**

compared to traditional face-to-face teaching as it pertains to spring 2020 based on your opinion

was:

○ Much Better  (1)

○ Better  (2)

○ The same  (3)

○ Worse  (4)

o    Much worse  (5)

Q31 The overall quality of education of **Emergency Remote Teaching** compared to traditional face-to-face teaching as it pertains to spring 2020 based on your opinion was:

o    Much Better  (1)

o    Better  (2)

o    The same  (3)

o    Worse  (4)

o    Much worse  (5)

Q32 What device(s) did you use mostly for **Emergency Remote Teaching** in spring 2020? (mark all that pertain)

☐   Smartphone  (1)

☐   Tablet  (2)

☐   Laptop  (3)

☐   Desktop  (4)

☐   Other (please provide answer below if applicable)  (5)

_____

Q33 How much of a challenge was each of the following technological issues for you due to the lack of institutional support once you made the transition to **Emergency Remote Teaching** and learning in spring 2020?

|  | Not applicable (1) | Extreme challenge (2) | Moderate challenge (3) | Slight challenge (4) | No challenge (5) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Face-to-face collaboration tools (e.g. whiteboards) (1) | o | o | o | o | o |
| My access to library resources. (3) | o | o | o | o | o |
| Student access to library resources. (4) | o | o | o | o | o |
| My access to reliable communication software/tools (e.g., Zoom, Skype). (5) | o | o | o | o | o |
| My access to reliable | o | o | o | o | o |

| | | | | | |
|---|---|---|---|---|---|
| internet/servic e. (6) | | | | | |
| My access to specialized software (e.g., Adobe products, statistical software). (8) | o | o | o | o | o |
| My own discomfort or lack of familiarity with required technologies or applications. (9) | o | o | o | o | o |

Q34 How easy or difficult was each of the following for you in adapting your class design and assignments to **Emergency Remote Teaching** and learning in spring 2020?

| | Extremely easy (1) | Moderately easy (2) | Slightly easy (3) | Neither easy nor difficult (4) | Slightly difficult (5) | Moderately difficult (6) | Extremely difficult (7) |
|---|---|---|---|---|---|---|---|
| Getting comfortable with online tools/applications. (1) | o | o | o | o | o | o | o |
| Understanding the options for online course delivery. (2) | o | o | o | o | o | o | o |
| Finding the time/energy to effectively adapt. (3) | o | o | o | o | o | o | o |
| Overcoming my preference for teaching | o | o | o | o | o | o | o |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| the way I usually teach. (4) | | | | | | | |
| Translating my lessons or activities to the Emergency Remote Teaching environment. (5) | o | o | o | o | o | o | o |
| Understandin g how to best assess student learning in the Emergency Remote Teaching | o | o | o | o | o | o | o |

| environment. (6) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Getting my students to adequately participate and respond. (7) | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Q35 As an instructor, I would consider implementing the following items to my traditional instruction approach:

| | Strongly agree (1) | Agree (2) | Undecided (3) | Disagree (4) | Strongly disagree (5) |
|---|---|---|---|---|---|
| Synchronous class meetings. (1) | ○ | ○ | ○ | ○ | ○ |
| Using Web Conferencing tools (e.g., Zoom, Blackboard, | ○ | ○ | ○ | ○ | ○ |

| | | | | | |
|---|---|---|---|---|---|
| Collaborate, Canvas). (2) | | | | | |
| Virtual office hours (4) | o | o | o | o | o |
| Recorded video lectures/Recorded audio lectures or podcasts (5) | o | o | o | o | o |
| Voice-over PowerPoint presentations (6) | o | o | o | o | o |
| Discussion boards (8) | o | o | o | o | o |
| Simulation or modeling software (9) | o | o | o | o | o |

Q36 As an instructor, I would consider implementing the following item(s) to my traditional instruction approach that I used in spring 2020 that was not mentioned in the previous question (please indicate in the space provided if applicable):

_____

Q37 My experience with internet connectivity as it pertains to spring 2020 was:

- o   Excellent  (1)

- o   Good  (2)

- o   Fair  (3)

- o   Poor  (4)

- o   Very poor  (5)

Q38 My experience with institutional support with technology and online tools as it pertains to spring 2020 was:

- o   Excellent  (1)

- o   Good  (2)

- o   Fair  (3)

- o   Poor  (4)

Q39 How would you describe yourself (mark all that apply)?

- ☐   Do not wish to respond  (8)

- ☐   Native American/Alaska Native  (1)

- ☐   Asian  (4)

☐ Black or African American  (5)

☐ Native Hawaiian or Other Pacific Islander  (6)

☐ White  (7)

☐ Hispanic/Latino/Latinx  (9)

☐ Two or more races  (10)

Q40 What is your age?

○ Less than 31  (4)

○ 31-40  (5)

○ 41-50  (6)

○ 51-60  (7)

○ 61+  (8)

Q41 How many years have you been teaching?

○ 1-5 years  (1)

○ 6-10 years  (2)

○ 11-15 years  (3)

○ 16-20 years  (4)

○ More than 20 years  (5)

Q42 To which gender identity do you most identify?

○ Female  (4)

○ Male  (5)

○ Transgender female  (6)

○ Transgender male  (7)

 o Non-binary (8)

 o Self-describe (9) _____

Q43 I would be willing to answer questions to provide additional information toward this

research. My email address is:

_____

**APPENDIX D**

Re: Dissertation

Inbox

Thu, Jul 14,
2022, 9:54 PM

Daniel C Barton

<Daniel.Barton@humboldt.edu>

Hi Traci,

The questions I used are published with the article, in the supporting information:
https://onlinelibrary.wiley.com/action/downloadSupplement?doi=10.1002%2Fece3.6628&file=ece36628-sup-0001-Supinfo.pdf

The article and all of the supporting information are published under a "creative commons / by attribution" license in the interest of open science, so feel free to use as you like.

I hope that helps and best of luck with your research!

Best,
Dan

**APPENDIX E**

Invitation Email

Dear Faculty Member,

     I am a graduate student at Western Kentucky University. The survey link below is a critical part of my dissertation research. It is a Qualtrics survey to evaluate faculty perception of the impact Covid-19 made on student learning outcomes depending on the academic discipline during spring 2020. Your participation is entirely voluntary, and it should take you no more than 10-12 minutes to complete the survey.

I would really appreciate your input; your voice is important to my research. If you are willing to participate in this case study, please click on the link below:

     **https://wku.co1.qualtrics.com/jfe/form/SV_5dvww76nxd6ul5c**

     Thank you,

Traci Pooler

Western Kentucky Graduate Studies
Dissertation Survey
Department of Educational Leadership

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Name: Pooler, Traci Michelle

Email (to receive future readership statistics): poolert@lindsey.edu

Type of document: ['Dissertation']

Title: Faculty Perception of the Impact of Covid-19: A Descriptive Case Study Analysis

Keywords (3-5 keywords not included in the title that uniquely describe content): Student learning outcomes, AIKCU, teaching expectations, learning objectives

Committee Chair: Dr. Aaron Hughey

Additional Committee Members: Dr. Lester Archer Dr. Wren Mills

Select 3-5 TopSCHOLAR®  disciplines for indexing your research topic in TopSCHOLAR®: Education Psychology