

Student Preparedness for Emergency Remote Learning

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The recent worldwide pandemic, COVID-19, pushed students of all ages to remote learning in a matter of days. This abrupt change in the mode of delivery of instruction affected students differently. The researchers share findings of a study conducted among university preservice education students from Texas and Ohio concerning students' preparedness for this drastic change. The study sought to identify and document recurring themes about the students' experiences of remote learning and to determine how significantly socioeconomic status (SES), sociocultural values (SCV), and socioemotional learning (SEL) aspects impacted students' transition to remote learning at these universities. Implications for university instructors and ways to improve educational experiences during such unprecedented times are discussed.

Keywords: emergency remote learning, socioemotional learning, socioeconomic status, sociocultural values, Change Management Model, rural education, rural students

"Education is what remains after one has forgotten what one has learned in school."

Albert Einstein

The COVID-19 pandemic first became known as a potential major health risk in the fall months of 2019. It was not until the midwinter months of 2020 that the full potential of what this virus could do as far as loss of life worldwide was fully known. In attempts to get ahead of the curve and slow the spread of the virus, many countries worldwide imposed mandatory shutdowns of places of business where virus spread was most likely to occur. All personal grooming, gyms, workout centers, dine-in eating, and other non-essential businesses were shuttered. Schools were included in this lockdown approach to control the virus spread. This drastic halt meant that nearly 264 million school-age children (Global Education Monitoring Report Team, 2017) across the globe were not in school. Instead, many of these P-12 students received online learning opportunities.

The next level of lockdown came to colleges and university campuses around the world. Students in institutions of higher education (IHE), both public and private, were sent home, encouraged to stay away from campus, and were pushed to online learning. This rapid emergency pivot to online learning (Casey, 2020) would not happen without student and faculty issues. Issues of disparity of resources, mental health problems, and the frustration and unpreparedness of the overnight move from face-to-face (F2F) learning to virtual learning were experienced by many (Casey, 2020; Hodges et al., 2020; Hussein et al., 2020; Mishra et al., 2020).

In recent months, much focus has been on emergency remote learning (ERL) and its effects on different populations (Adnan & Anwar, 2020; Aguilera-Hermida, 2020; Arrington, 2020; Casey,

2020, Hodges et al., 2020; Rapanta et al., 2020). The purpose of this mixed-method study was to identify and document recurring themes about the experiences of what has come to be known as “emergency remote teaching (ERT)” (Hodges et al., 2020, p. 2) among undergraduate students who attend two Schools of Education in either a historically black college or university (HBCU) or a predominantly white institution (PWI) in Texas or Ohio, respectively. The study focused on the socioemotional, socioeconomic, and sociocultural impact on students’ preparedness to meet the demands of ERL.

Conceptual Framework

The undergirding or theoretical framework for this study can be found in Lewin’s (1947) Change Management Model. His model is known as Unfreeze – Change – Refreeze, a three-step process of change. Burnes (2020) investigated and referred to Lewin’s work as a “robust approach to understanding the complexity of human behavior and how it can be changed” (p. 52). As one of the foremost psychologists of his day, Lewin is best known for this three-step model of change. The first phase of change, unfreezing, entails preparing the organization to embrace the change, understanding that the existing status quo cannot continue. The second phase, change, comes after the uneasiness generated in the unfreeze stage and involves the people in the organization identifying new ways to do things. In this phase, people begin to embrace the change and make changes to support the new direction. In phase two, it is here that people within the organization need to know how the change will favor them personally for the change to be successful. Time and communication, and the need to feel highly connected, are critical to the changes happening effectively (Mind Tools Content Team, 2020). Finally, in the third phase, refreeze, the organization adopts the change. During the refreezing phase the initiators of change can remodel or reshape what they need to change, so it takes on a new form. What is refrozen should not be identical to what was unfrozen. It should take on a much better form. The new form can include a cultural shift as well as leadership that will support

the changes. The refreezing also ensures the change is permanent.

When considering this theoretical framework in light of the recent pandemic, COVID-19, it is easy to see the parallels. Never before had any major catastrophe caused such worldwide disruption to the education system as the recent pandemic. COVID-19, within days, brought a screeching halt to P-20 face-to-face (F2F) instruction across the globe. This disruption came for many reasons that included federal and state lockdown, fear, necessity, and possibly the most significant reason, the uncertainty of what real force the virus might have on the world’s population. Lewin’s (1947) first step of unfreezing happened when suddenly, across the globe, nearly 264 million (Global Education Monitoring Report Team, 2017) school-aged children were closed out of school buildings and forced to school using online platforms. Subsequently, in the United States alone, nearly 20 million students enrolled in colleges and universities across the country also found themselves receiving all coursework via the internet or other online means. The unknown of COVID-19 precipitated what Lewin describes in detail as the “fluidity necessary for change” (Lewin, 1943, p. 559) to ERL.

Considering Lewin’s (1947) second phase in light of COVID-19, the change occurred seemingly overnight when most public schools for children and institutions of higher education (IHEs) globally opted to cancel all F2F classes, including labs, internships, and field experiences. This major shift to ERL was brought about because “the forces pressing for change are greater than those resisting change” (Burnes, 2020, p. 50).

The third phase, the freezing process, depicts the changes necessary “to bring about the permanence of the new situation” (Lewin, 1943, p. 559). Little did IHEs, particularly, realize how COVID-19 would affect the learning process; many saw the shift to ERL as a short-term arrangement to get past COVID-19. At the time, no one would have believed ERL would have continued through the summer and even into the fall semester of 2020. As a result, the freezing process began to push IHEs to provide professional development to tackle

ERL demands. Several IHEs actually canceled classes entirely for a week or so in order for professors to make the rapid pivot to remote teaching. Most professors were not prepared for the drastic change in teaching format from F2F to remote teaching (Arrington, 2020; Casey, 2020). Essentially, COVID-19 caused a rapid pivot to alternative instructional methods [unfreezing of the way we typically did things], that led to changes in the ways instructors taught and students learned [change here is not seen as an event, but rather, a dynamic process as a break in continuity], to finally a paradigm shift that was inevitable for integrating technology in our teaching-learning process. This shift enables us to teach students with the methods in which they would not only feel comfortable, but also, they can match the demands of the 21st century [refreezing of a new way - not merely going back to the old way when COVID is over] (Mishra et al., 2020).

Literature Review

IHEs located in rural America were particularly faced with unique challenges transitioning to the remote offering of courses this past spring. In the report prepared by the Alliance for Research on Regional Colleges, the researchers found that rural public colleges:

- are underfunded, relative to other public colleges,
- are essential partners in building public health infrastructure,
- provide an access point for educational opportunities in rural communities, and
- need more financial support to serve their communities through COVID-19 and beyond (McClure et al., 2021).

The first and the last findings are important as they address the fundamental purpose of this study. The needs of college students in rural institutions vary. Whereas faculty may ask themselves, what are our students learning, and most college and university instructors focus on student learning outcomes (SLOs) and less on their experiences as they matriculate through the program, most faculty in rural institutions also consider external factors that impact student learning. The abrupt presence of COVID-19 and the sudden requirement to

change business as usual prompted faculty in rural IHEs to consider not only the content and presentation of content to students but also the context in which students ultimately acquire knowledge and skills. An important factor is students' preparedness and experiences of actually navigating the higher education system without always relying on faculty intervention. Two things are evident: the critical role of the student-faculty meeting in person and the lack of faculty and students' preparedness for the sudden shift to remote engagement. In retrospect, reflecting on an unusual spring semester, this study in remote learning was geared to evaluate the impact of this mode of instruction on teacher education students.

While education shifted in response to COVID-19, many IHEs were grappling with ERL that could afford students an educational experience worth their money. Besides, there was a need to understand the educational experiences of students living in rural areas of their respective state, who, in light of existing educational inequities, were seen to be further exposed to inequitable access due to limited resources or disproportionate distribution of resources to rural communities. Anticipating an increasing likelihood that remote learning will continue into the future, it is vital that IHEs, and policymakers, understand and account for the disparities in students' home learning environments that make meaningful participation in online learning more challenging.

The conversation to date on disparities in remote learning environments has been incomplete. It narrowly focuses on access to the internet and technology and often leaves out multiple other factors that can impact remote learning. Spievack and Gallagher (2020) highlight some of the factors that impact school-age students:

- Linguistically isolated students may need additional language support to complete their classwork and may struggle if their parents or guardians do not speak sufficient English;
- Living in crowded conditions can make it hard to focus on schoolwork, a challenge

exacerbated when more family members are at home;

- Students without access to a computer or internet may be unable to sign into online classes and complete their assignments;
- If no adult in the household has completed a high school education, students with more advanced schoolwork may not have access to the help they need;
- Students with disabilities may lose access to critical supports they received at school when learning at home;
- Students living in poverty are more likely to lack educational and other resources that support learning at home and face stressors that make remote learning more difficult.

Given the wide variety of methods, practices, and tools associated with online teaching and learning, applications and approaches vary significantly within and across K-12 and higher educational settings (Dixon, 2010). Every pedagogical situation reflects different student experiences and instructional needs; online teaching across these varied settings must address the particulars of each educational context (Aguilera & Nightengale-Lee, 2020).

The current study looked at some of these same issues focusing on the effect of socioeconomic (SES), sociocultural (SCV), and socio-emotional learning (SEL) needs and their impact on students' preparedness to meet the demand of online/virtual learning in two baccalaureate programs. We approached this study from the perspective of Change Management Theory.

Many of the graduate-level programs have online course offerings that students can choose to take. Most of the undergraduate programs are F2F. However, in situations such as these where the current pandemic has necessitated online and virtual courses, it is essential to determine student preparedness and needs. Given that there is limited information about student needs and options for success, we must get this information straight from the students instead of speculating on student experiences.

Struggles with Engagement

This overnight pivot from F2F to online teaching and learning created stress in ways not previously fully known when students are on campus or commuting to attend classes. Most professors understand the need to engage students in various ways and not merely lecture the entire class period. However, engaging students and maintaining their focus during ERL have issues that differ from those in F2F teaching.

No Need to Prepare for Class

Turner et al. (2020) discovered the lack of transition students faced as they often woke up and connected with a Zoom class. This lack of transition time meant students were not fully prepared, either physically or mentally, since some students reported attending class in their pajamas, merely moving from bed to desk, and not having the drive-time to class, all of which impacted students' ability to adjust their mental and psychological state.

Staying Focused During Class

Several studies (Hussein et al., 2020; Mollenkopf & Gaskill, 2020; Turner et al., 2020) documented the struggles students faced when "attending" class virtually from home. Students, both traditional and non-traditional, reported they not only had to attempt to focus on their own studies, but also care for children now at home learning online, care for elderly parents, some of whom were even sick with COVID-19, and juggle home chores – not ever visible while attending class F2F.

None of the distractions noted above even accounted for the environmental changes students faced. Students now met with challenges like the ever-present roommate or girl/boyfriend, no real study space like the dorm or campus library offered, and disruptions like pets and other family members simply going about life, to name a few (Mollenkopf & Gaskill, 2020; Turner et al., 2020). In different ways, employment became a distraction since the students' schedules had changed, and economic hardships became a reality with other family members out of work (Mollenkopf & Gaskill, 2020).

For some students, paying attention is difficult at best in any situation, but the pivot to emergency online teaching and learning created even more challenges. As Turner et al. (2020) expressed, “The front stage of the classroom collided with the backstage of people’s homes. The students and the faculty had a view into each other’s worlds” (p. 86). This *virtual window* allowed students and faculty to see areas of each other’s lives never before seen. People’s animals, children, and other distractions made focusing on the class demands that much more difficult (Hussein et al., 2020).

Student Mental Health

The argument that this emergency pivot to online learning would affect both professors and students is easily made with the literature (Adnan & Anwar, 2020; Chandler et al., 2020; Hussein et al., 2020; Mishra et al., 2020; Rapanta et al., 2020; Turner et al., 2020). An area not so understood is student mental health during and after emergency remote teaching and learning. Universities certainly understand that students often struggle with mental health issues, hence providing counseling services, hotlines to address violence and suicidal issues, success coaches, advisors, and other student service supports.

Emergency remote learning isolated students from many of those services and further compounded mental health issues. Son et al. (2020) found that participants expressed the following concerns that affected physical and emotional health, based upon a scale of mild to severe:

- Concerns for health – 91%
- Difficulty concentrating – 89%
- Disruption in sleep patterns – 86%
- Disruption in eating habits – 70%
- Increased social isolation – 86%
- Depressive thoughts – 44%

Aguilera-Hermida (2020), Mishra et al. (2020), and Hussein et al. (2020) further documented students’ concerns for their own mental health during remote learning while dealing with COVID-19. Turner et al. (2020) suggested that a possible way to ameliorate students’ mental health concerns was to provide various levels of social presence:

attentional, budgeted, entitled, competitive, and invitational. Connecting students with professors and connecting students with students are vital for all parties.

In summary, many of the challenges students faced during the transition to ERL were compounded by fear of the pandemic as well as other environmental factors. This study went beyond what is typically associated with challenges of online learning to assess students’ perceptions and experiences when the shift to remote learning was sudden and mandatory.

Methodology

This study used a mixed-methods approach where the researchers gathered quantitative data on students’ demographics, students’ knowledge and skills of navigating their learning management systems, equipment types, and overall students’ experiences. The researchers gathered qualitative data on students’ perceptions of online or hybrid instruction. Qualitative research methods were used to understand some social phenomena from the perspectives of those involved while contextualizing issues in their particular socio-cultural-economic milieu and sometimes to transform or change social conditions (Glesne, 2006).

A multi-site interpretive case study methodology was used to investigate the sudden transition to remote learning, a phenomenon that has impacted America today. IHE students’ lived experiences as they ended F2F learning was important in understanding some of the challenges and successes they encountered along the way. Furthermore, the researchers obtained, from the students, recommendations for instructors on strategies that can increase student chances of success in an online course. These recommendations were compared to the recommendation in the literature on best pedagogy practices for remote learning.

Research Questions

1. How prepared are undergraduate students for remote learning?

2. How is students' preparedness for remote learning linked to technology access and skills?
3. What are students' perceptions of the impact of remote learning on their academic performance?
4. What are some recommended strategies that could support student success?

Profile of Participants

The researchers used purposeful (convenient) sampling (Elfil & Negida, 2017). A multiple-choice and open-ended questionnaire was distributed online to 106 education majors taking remote classes. A total of 83 (78.3%) responded. The survey was conducted between March 25 and August 30, 2020, after the students had weeks of emergency remote learning using synchronous systems options implemented via Zoom and Adobe

Connect video conferencing and online meetings. The profile of the participants is outlined in Table 1. A large proportion of the participants, 91.6% ($n = 76$), were female. Most of the participants, 83.1% ($n = 69$), were in the 18-24-year-old age group. A total of 97.6% ($n = 81$) of the participants were juniors (54.2%, $n = 45$) and seniors (43.3%, $n = 36$) at their institution. More than half of the respondents were African American (60.2%, $n = 50$).

Data Analysis

The researchers used a frequency distribution data analysis technique, which allowed the researchers to get the big picture of the data. The researchers were able to see how frequently specific items were selected and the percentages for the same variable from the frequency distribution. The frequency distribution data were then presented as *Bar graphs*.

Table 1
Profile of Participants

Characteristic	n	%
Gender		
Female	76	91.6
Male	7	8.4
Total	83	100.0
Age		
17 years or younger	1	1.2
18-24 years	69	83.1
25-34 years	9	10.8
35-44 years	2	2.4
45 years and older	2	2.4
Total	83	100.0
Classification		
Sophomore	2	2.4
Junior	45	54.2
Senior	36	43.4
Total	83	100.0
Race/Ethnicity		
African American	50	60.2
Caucasian	25	30.1
Hispanic	8	9.6
Total	83	100.0
Institution Type		
HBCU	58	69.9
PWI	25	30.1
Total	83	100.0

Table 2*Quantitative Results*

Item	n	%
6. What type of technology do you use for virtual/online learning?		
Desktop computer	3	3.6
iPad	10	12.0
Laptop	65	78.3
Phone	5	6.0
7. How would you describe your transition to virtual or online learning?		
Extremely Difficult	6	7.2
Moderately Difficult	33	39.8
Moderately Simple	32	38.6
Simple	12	14.5
8. How would you describe your knowledge and skill level when navigating Canvas/eCourses/Blackboard?		
Advanced	13	15.7
Proficient	48	57.8
Basic	21	25.3
I have never used any	1	1.2
9. After transitioning to virtual/online course offering, what was the most difficult for you?		
Assignments	21	25.3
Communication	28	33.7
Instruction	32	38.6
I did not transition to virtual/online	2	2.4
10. After transitioning to virtual/online course offering, what was the most difficult for you?		
Accessing Course Resources	41	49.4
Accessing Faculty	32	38.6
Accessing Technology	10	12.0
11. Select the top three challenging aspects of virtual/online learning.		
Using Zoom	28	11.25
Collaborating with peers	64	25.70
Managing time	59	23.69
Distractions	56	22.49
Access (Wi-Fi, Electricity)	42	16.47
12. Which of the following choices would you prefer?		
Fully Online with added Assignments	13	15.7
Fully Online with no added Assignments	21	25.3
Virtual Meetings with Added Assignments	20	24.1
Virtual Meetings with No Added Assignments	29	34.9

Qualitative data analysis involved coding, theme development, and thematic analysis. Open coding was used, which involved breaking down, examining, conceptualizing, and categorizing data (Strauss & Corbin, 1990). After the initial open coding, axial coding was used. Axial coding consists of linking subcategories to other categories in a relational manner, denoting phenomenon, context, intervening conditions, and consequences (Strauss & Corbin, 1990).

Finally, a thematic analysis approach (Hess-Biber & Leavy, 2004) was utilized to infuse both coding methods to establish underlying themes and descriptive analysis to interpret individual experience to gain insight into the students' experience (Sande, 2013). Using this approach, the researchers interpreted the data, trussing the findings to current literature and the conceptual framework.

Results

This mixed-methods multi-site interpretive case study provides results from both quantitative and qualitative perspectives. As important as the quantitative data is for future practice and remote learning development opportunities,

understanding students' lived experiences now offers insight that humanizes this rapid pivot to online learning.

First, quantitative results are offered that give survey results from both institutions. Then, qualitative data are presented that offer discussion of recurring themes. These data postulate student preparedness for remote learning.

Quantitative Results

The results of specific survey items are presented in Table 2, followed by a discussion of each item.

Access and Use of Technology

Item 6: What type of technology do you use for virtual/online learning? A large proportion of the participants (78.3%, $n = 65$) used a laptop for virtual/online learning, while some of the remaining participants used a desktop computer (3.6%, $n = 3$) or an iPad (12.0%, $n = 10$; see Figure 1). A small proportion of the participants (6.0%, $n = 5$) used a phone for virtual/online learning.

Figure 1

Item 6: What type of technology do you use for virtual/online learning?

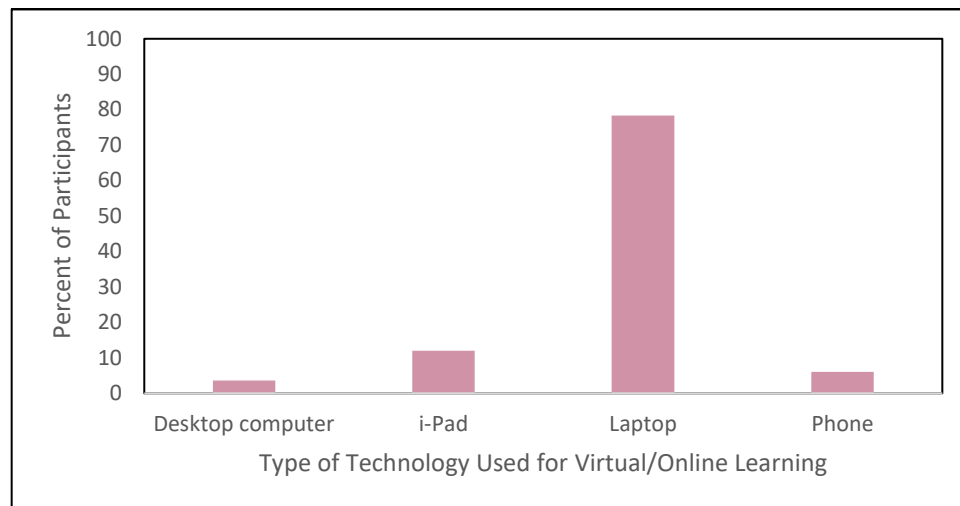
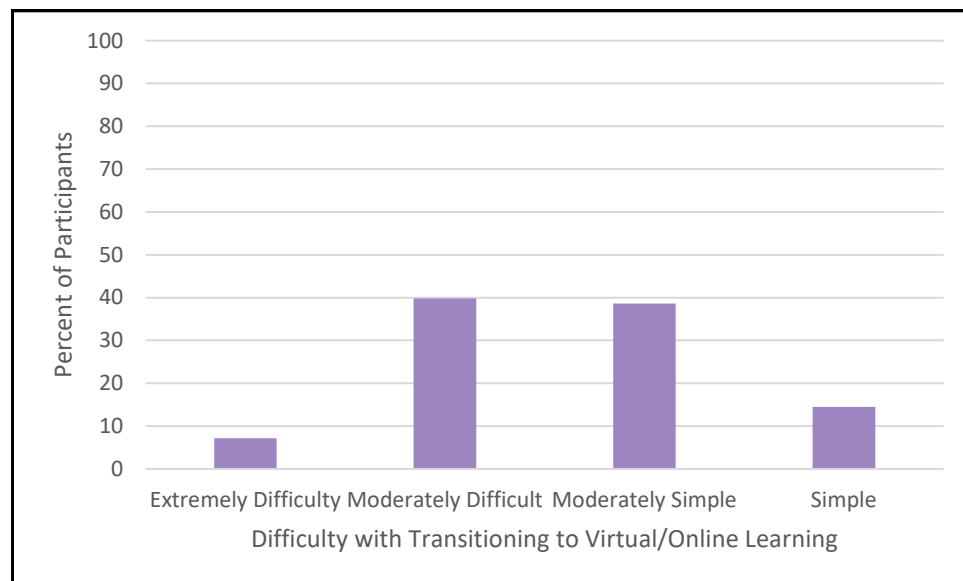


Figure 2

Item 7: How would you describe your transition to virtual or online learning?

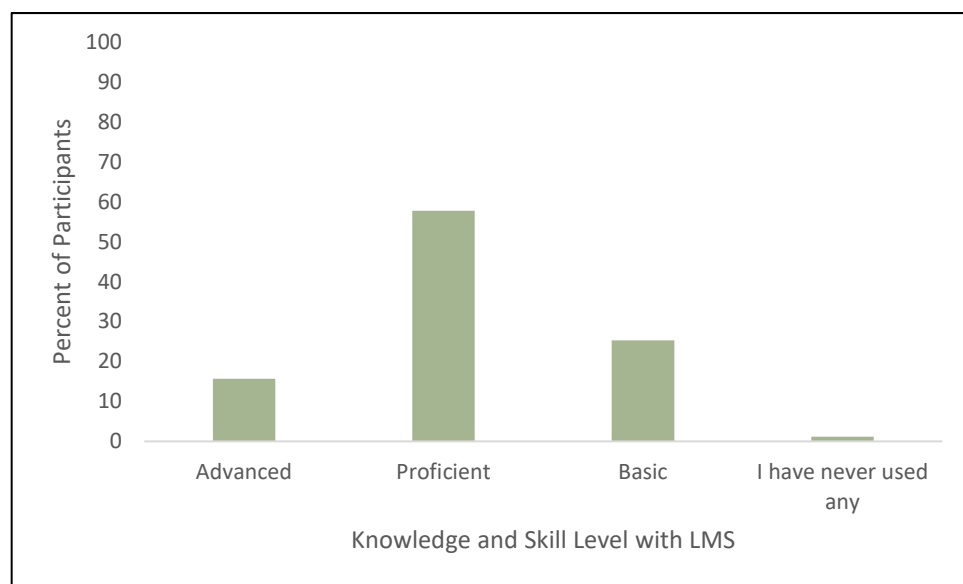


Item 7: How would you describe your transition to virtual or online learning? Just under half of the participants (47.0%, $n = 39$) reported difficulty with transitioning to

virtual/online learning, and just over half of the participants (53.0%, $n = 44$) reported that the transition was simple (see Figure 2).

Figure 3

Item 8: How would you describe your knowledge and skill level when navigating Canvas/ecourses¹/Blackboard?



¹eCourses is a Moodle learning management system.

Item 8: How would you describe your knowledge and skill level when navigating Canvas/ecourses/Blackboard? Nearly three-quarters of the participants (73.5%, $n = 61$) reported being advanced or proficient in knowledge and skill level when navigating their learning management system (LMS; see Figure 3). In comparison, 26.5% ($n = 22$) of the participants reported a “Basic” or “I have never used any” knowledge and skill level.

Difficulties after Transitioning to Virtual/Online Learning

Item 9: After transitioning to virtual/online course offering, what was the most difficult for you? A total of 25.3% ($n = 21$) of the participants reported difficulty with assignments, 33.7% ($n = 28$) of the participants reported difficulty with communication, and 38.6% ($n = 32$) of the participants reported difficulty with instruction. The remaining 2.4% ($n = 2$) of the participants did not transition to online learning (see Figure 4).

Item 10: After transitioning to virtual/online course offering, what was the most difficult for you? Most participants (49.4%, $n = 41$) reported difficulty accessing course resources (see Figure 5). The remaining participants reported difficulty with accessing faculty (38.6%, $n = 32$) and accessing technology (12.0%, $n = 10$).

Students' Preference

Item 12: Which of the following choices would you prefer? Even though most participants (34.9%, $n = 29$) would have preferred virtual meetings with no added assignments over the other options provided, other participants preferred fully online with added assignments (15.7%, $n = 13$), fully online with no added assignments (25.3%, $n = 21$) or virtual meetings with added assignments (24.1%, $n = 20$; see Figure 6).

Figure 4

Item 9: After transitioning to virtual/online course offering, what was the most difficult for you?

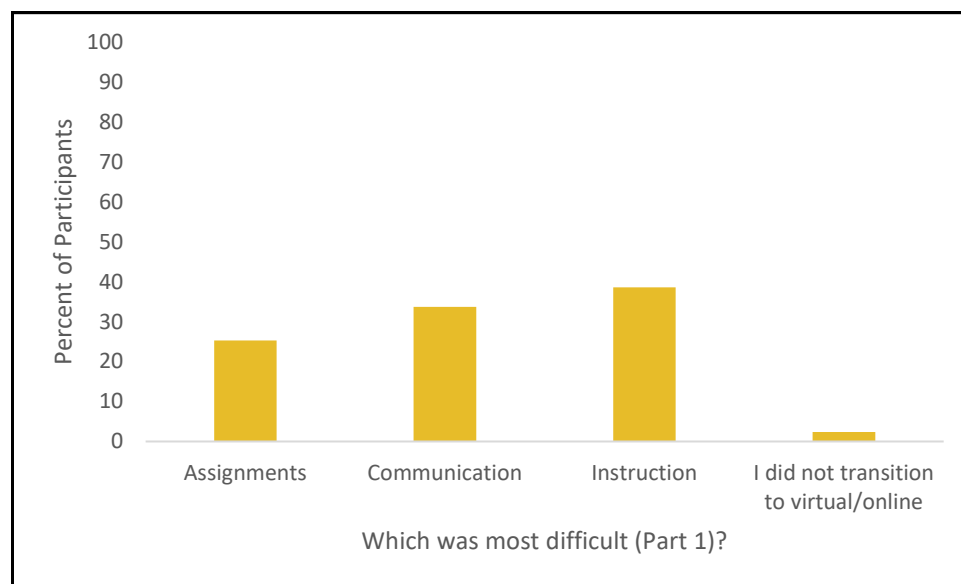
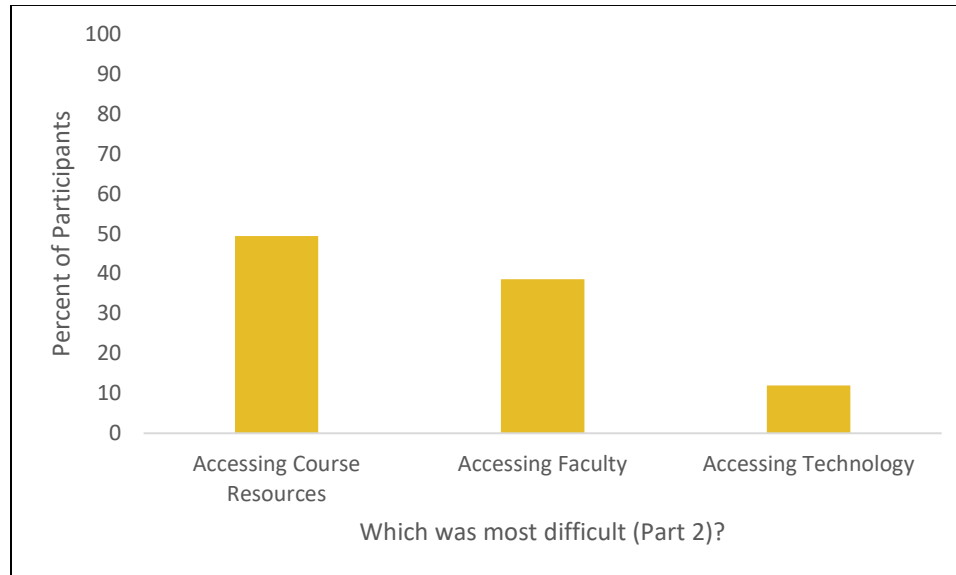


Figure 5

Item 10: After transitioning to virtual/online course offering, what was the most difficult for you?



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Student Ratings on Areas of Need

For Items 13 and 14, students ranked what they considered an immediate need to be successful and then responded to open-ended questions about their learning experience using remote methods. In Table 3, we see that most students ranked communication as their number one area of immediate need (40.91%) whereas, 33.33% ranked it as their second area of need. Students ranked engaging in research and project activities as their least area of need. It seemed students were comfortable conducting their own research and working on projects in remote settings.

Figure 6

Item 12: Which of the following choices would you prefer?

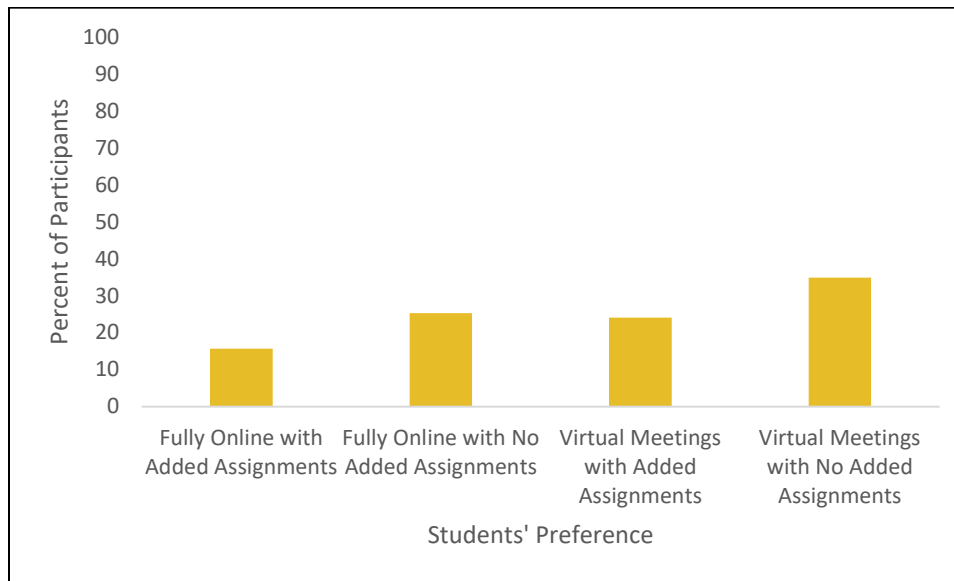


Table 3

Q13 - Moving forward, what would be your immediate need in order to be successful in an online platform? Rank the following in order of importance.

#	Question 13	% Ranking 1		% 2		% 3		% 4		% 5		% 6		% 7		Total %
1	Increased orientation and training on eCourses ¹ and Canvas	22.73	15	13.64	9	10.61	7	22.73	15	12.12	8	9.09	6	9.09	6	66
2	More communication and weekly updates by faculty	40.91	27	33.33	22	18.18	12	1.52	1	4.55	3	1.52	1	0.00	0	66
3	Video description accompanying assignments	9.09	6	22.73	15	36.36	24	19.70	13	7.58	5	1.52	1	3.03	2	66
4	Supply of additional technology	4.55	3	12.12	8	15.15	10	24.24	16	25.76	17	15.15	10	3.03	2	66
5	Alternative assessment methods- more test and quizzes	4.55	3	1.52	1	7.58	5	9.09	6	19.70	13	36.36	24	21.21	14	66
6	Alternative assessment methods- more research and projects	0.00	0	3.03	2	3.03	2	15.15	10	12.12	8	25.76	17	40.91	27	66
7	More social-emotional support	18.18	12	13.64	9	9.09	6	7.58	5	18.18	12	10.61	7	22.73	15	66

Qualitative Results from the Open-Ended Question

In this section, the researchers discuss the findings from the qualitative data. A consistent approach is needed to begin coding the data, and there are several approaches that can be used in a disciplined way. Creswell (2014) described a systematic process for coding data in which specific statements are analyzed and categorized into themes that represent the phenomenon of interest. After coding, theme development, and thematic analysis, the researchers identified 11

recurring themes. The researchers noted that many of the themes corroborated findings from the qualitative data. Student responses are included in the discussion of each theme.

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Table 4

Item 14: In a few words, state two or three things that can be done to make online/virtual learning more manageable and increase your chances for your success.

Recurring Themes	Rate of response
Unclear directions for completing assignments	19.23%
Excessive Assignments	17.31%
Faculty Communication	14.42%
Need for Faculty Proficiency	11.54%
Excessive Virtual Meeting Times	11.54%
Need for Student Support	8.65%
Technical difficulties Access	8.65%
Technical Knowledge/Skills	2.88%
Need for Reasonable Expectations	1.92%
Mental Health	3.85%
External or home impact	4.81%

Unclear Directions for Completing Assignments

Students' main concern during the ERL transition was that information on how to complete assignments was unclear. Students indicated that faculty needed to "[h]elp the students understand as if it were face-to-face class meetings." Some students indicated that "there ha[d] been a lack of instruction and communication between professors and students when it comes to assignments." It is important to note that both faculty and students had to navigate these uncharted waters simultaneously. The need for more guidance to complete course work, especially assignments, seemed important to students at both institutions. As indicated by the results on Items 6 and 7 above, the use of technology was not an issue for many students. However, students needed more explicit directions on how to complete their assignments, as indicated in Item 9.

Excessive Assignments

The second area of most significant concern for students was that there seemed to be more assignments. This unusually high volume of assignments, unexpectedly assigned, may have been the instructors' way of compensating for not meeting F2F. However, when this occurs in all courses simultaneously, the burden on the students seemed insurmountable. Students' responses included:

Don't add too much work into the class.

What would help me most is not being loaded with assignments because we are working online. We have about 4-6 classes at a time, and that means work for each class. Giving us a ton of work to keep us busy is not helping me learn. It is easier when we do zoom meetings/lectures.

Don't add additional assignments and projects for your students. It creates more stress for all of us, and it is very unnecessary.

During a pandemic, less work should be given because you never know what people are going through. If work must be given, it should be given with consideration in mind.

Bombarding students with many additional assignments that would normally not happen in the classroom is not good.

The students' responses, which is consistent with the quantitative data in Item 12, captured students' preference, which mainly included no added assignments. The majority of the students preferred fewer assignments while learning remotely. The majority of the students preferred virtual meetings with no added assignments.

Faculty Accessibility and Communication

Students described their challenge with getting in touch with their instructors. Many instructors typically have office hours and open-door policies during those hours. Students are typically seen streaming into faculty offices for guidance for various situations. Alternatively, students remain behind after a regular class meeting to ask questions they otherwise did not ask in class. The ability to do this was taken away with remote learning. Students noted their inability to reach faculty during times of need. Students stated:

Professors not responding promptly to student questions also makes matters worse.

Increasing communication would help virtual learning significantly, as well as increasing emotional support.

[Professors need] to increase communication with students.

The students' responses, consistent with the quantitative data in Item 10, clearly demonstrate that students across both institutions needed assistance but did not receive as much help as they needed. Analyzing Item 9, students considered communication vital to their success in the program. Furthermore, the need for communication was ranked highest in Item 13 (40.91% of the students ranked it number one).

Need for Student Support

Closely linked to communication was the need to provide student support. The support did not necessarily have to be through email communication. The support was needed for students to be successful in meeting course

expectations. Students indicated that they needed:

More updates, more resources.

Provision of spaces to promote quiet, distraction-free learning.

Displaying the work in a more easy-to-read format.

Also, I believe that more instructional support videos, such as videos that explain more difficult content, could be added to help struggling students grasp the content in their online courses.

More clarity on certain assignments.

The quantitative data analysis revealed that student needs for support were ranked high. "Video description accompanying assignments" was ranked high as a second and third post prevalent need after communication (See Table 3).

Excessive Virtual Meeting Times

Students described their challenges in having excessive virtual meetings. The researchers found this information intriguing, given that the class meeting times remained the same when students transitioned to remote learning. However, the meetings via Zoom and Adobe Connect still seemed more excessive than necessary for the students.

Less zoom meetings would be great.

I can barely get my work done because there are so many zoom meetings.

Students shouldn't have to turn on their camera at home.

Meeting online provides several constraints; personally, I would prefer a typical distance education setting.

Based on the response for Item 11, accessing remote conferencing tools was of relatively low consequence; however, coupled with access to Wi-Fi, many of the students in rural IHEs experience challenges. Students may have

augmented this challenge using mobile hotspots. However, with poor phone reception, remote meetings might still be a challenge.

Need for Faculty Proficiency

Given the challenges mentioned above, it seemed faculty needed to gain proficiency in communicating expectations, navigating the learning management systems (LMS), and supporting students to ensure student success. Students clearly perceived some level of competence or lack thereof. Students indicated that:

Professors actually teaching instead of just assigning assignments.

I wasn't too bothered by online classes, but if we are going to be fully online, having professors know what they are doing would be great. This is the only thing I would change is people being more tech-savvy.

I do not have an issue with any of the online courses except when professor does not know how to use technology. Besides that, the experience is not so bad under the circumstances.

Professors need to have more knowledge on technology.

Technical Difficulties

Students experienced numerous technical difficulties. Unlike the initial expectation of limited resources, all students seemed to have access to technology (See Item 6 results). The challenge was access to virtual platforms due to internet access (See Item 11 results). Students indicated that:

Mainly because internet connection issues can cause for information to not be communicated properly.

Some professors have no leniency when it comes to meetings, sometimes Wi-Fi is not working and there are outages; so when you can't make a meeting due to something you can't control.

External and Psychological Impact

Students identified external factors as impacting their ability to succeed through remote learning. Some students directly indicated mental health issues due to the pandemic. The high level of stress was attributed to more work than usual.

[O]ffering virtual therapy sessions to students and bringing awareness to the importance of healthy mental states would have helped students like myself.

I feel like I have no life due to all the work that is being thrown at me.

Students get extremely stressed [with too much work].

Besides the direct mental impact on the student, other home factors impact their success.

Understand that we are dealing with things at home so assigning more work being more stress.

It would be beneficial if test deadlines were scheduled after 7 PM or weekends. Everyone in my household is on the internet until 5 PM. I often loose [sic] connection when I'm working online from 8-5.

I also have 3 children at home, and they also have half online and half in school work and I am managing my work and keeping up on their work.

Based on the responses from Item 11, managing time and distractions ranked third and fourth. Combined, these two categories ranked much higher. Students rated time management and distractions highly because this comes with not being on campus where students may have more time focused and devoted to learning and less on family or employment. This added layer of challenges made ERL more difficult given that most instructors maintained the usual F2F routines and expectations. Students' educational lives might be even more challenging in the years ahead as they deal with the pandemic's economic consequences and a new academic environment

that currently includes a combination of F2F and remote courses.

Technical Knowledge/Skills

The quantitative data analysis showed that nearly three-quarters of the participants (73.5%, $n = 61$) reported being advanced or proficient in knowledge and skill level when navigating their LMS. However, 26.5% ($n = 22$) of the participants reported a "Basic" or "I have never used any" knowledge and skill level. However, it should be noted that the technical difficulties stemmed from using a novel LMS for the students. Compounded by limited communication, students had numerous challenges completing their work given this new platform. Even though most students did not seem to have limited technical knowledge and skills when using computers or accessing remote conferencing tools (2.88% from the qualitative data), Item 8 directly asked about knowledge and skills navigating their LMS, thus showing significant association. However, it is essential to note that the students who transitioned to a new LMS simultaneously as they transitioned to ERL experienced the most difficulty in this area.

Implications for Stakeholders

The benefits of this research are to faculty and students. Information gathered could help faculty and universities tailor their virtual and online course offerings to ensure maximum benefit and success. Using Lewin's (1947) *Change Management Theory*, many of the challenges discussed can be mitigated, keeping in mind that institutions in rural settings have unique needs. Phase one, *unfreezing*, involves preparing the organization to embrace the change. Phase two, *change*, comes after the uneasiness generated in the unfreeze stage and involves the people in the organization identifying a viable process of finding new ways to do things. Finally, phase three, *refreeze*, is where the organization adopts the change. Some of the changes may require a cultural shift. After reviewing the students' responses on each item presented, the following are presented as possible refreezing options for optimal transition to remote learning.

Communicate Frequently Using Various Methods

From a sociocultural perspective, students expressed the need to engage with their instructors more so for affirmation and guidance. Knowing the instructors were “there” even with an online presence seemed to provide a sense of security (Turner et al., 2020). Students needed clear communication concerning assignment expectations since some changes occurred during the transition to remote learning. Finally, they needed to understand through the communication channels of email, texts, and virtual meetings, how to get support if they were ill and unable to attend to class requirements or if external factors beyond their control prohibited immediate involvement with class activities (Mollenkopf & Gaskill, 2020). Effective communication would address the concerns highlighted in survey Items 9 and 10, where one-third (33.7%) of the study’s participants reported difficulty with communication, and just over one-third (38.6%) of the participants reported difficulty accessing faculty, respectively. It would also address the same recurring theme of faculty access and communication in the responses to open-ended questions.

Assign Meaningful Activities

Research into effective online instruction offers three conclusions: (1) online instruction can be as effective as traditional instruction; (2) to do so, online courses need cooperative/ collaborative (active) learning; and (3) strong instructor presence (Dixon, 2011). This new environment makes it all the more important to align resources with evidence-based practices proven to help students succeed.

Provide More Student Support

The need to provide more student support, such as course resources, was a recurring theme within the responses to the open-ended questions, with almost half of the participants (49.4%, $n = 41$) reporting difficulty with accessing course resources, per survey Item 10 (see Table 2). From a socioemotional perspective, the need to support students during this COVID-19 period

seemed to have increased. Regarding instructional practices, whether emergency-response or otherwise, it is vital that future efforts better understand the potential for distributed teaching and learning networks for differentiating students’ schooling experiences (Holmes et al., 2020). These could include increased flexibility for content delivery, representations of learning and assessment; collaboratively developed expectations, and a better understanding of the “experience of learning” rather than its outcomes alone.

Virtual Meetings Fatigue

Instructors must find a balance that will ensure optimal balance between actual online meetings and much-needed time for assignment completion. In fact, 41.0% of the study’s participants would have preferred fully online classes (with or without added assignments), per survey Item 12 (see Table 2). It would also address the same recurring theme of excessive virtual meetings present in the responses to open-ended questions.

Digital Divide

This study shows that participants did not have trouble accessing or using the hardware or software. This indication of proficiency as per their response to survey Item 10 (see Table 2), where only a few participants (12%, $n = 10$) reported difficulty accessing technology. Additionally, their responses to survey Items 6 and 8 (see Table 2) indicated the same, where almost all participants had access to a desktop computer, laptop, or iPad, and nearly three-quarters of the participants reported being advanced or proficient in knowledge and skill level when navigating their LMS, respectively. The concerning issue was access to the internet, expressed in their responses to the open-ended questions. Rural adults are also less likely than suburban adults to have multiple devices or services that enable them to go online (Perrin, 2017). Rural residents go online less frequently than their urban and suburban counterparts. Perrin (2017) states that roughly three-quarters (76%) of adults who live in rural communities say they use the internet on at least a daily basis,

compared with more than eight-in-ten of those in suburban (86%) or urban (83%) areas (Perrin, 2017).

Perhaps, COVID-19 provided the catalyst that will provide greater broadband internet access to Ohio's rural counties. Recently, Governor DeWine signed H.B. 2 that immediately earmarks \$20 million for broadband expansion, with a request to the legislature for another \$200 million. Lt. Gov. Husted (Ohio) spoke of creating an inclusive environment in the post-COVID-19 world since many families and children could be working online. "As jobs are being created, we now are going to give more families an opportunity to participate in the modern economy, education, and healthcare system" (Dyches, 2021).

Strong and Proactive Coaching

Programs that address multiple barriers to success and include a robust and proactive coaching component can help students navigate these new realities, support students staying in school, and address inequities exacerbated by the crisis (Aguilera & Nightengale-Lee 2020). The researchers are not advocating a "hand-holding" scenario for both faculty and students but an efficient and expedited process supporting faculty transition and allowing faculty to provide the same to their students.

Humanizing Pedagogy

What do we know about what is going on in households where students seem unable to complete their tasks? The data shows the challenges faced through remote learning from students' perspectives and the need for instructors to consider *humanizing pedagogies* when working with students in rural settings (Mehta & Aguilera, 2020). Students shared their personal experiences during online learning in Item 14. However, what methods are students using to address these challenges, and what can faculty and institutions do to assist students with more favorable experiences, enhance learning further, and make student learning more responsive, engaging, and impactful? Students provided some suggestions for how instructors

can assist them. Some of these concerns may be addressed on an individual faculty level, or the institution can present some best practices for all instructors to implement. Mehta and Aguilera (2020) made a call to all instructors and teachers to recommit to critical humanizing pedagogy, whether instructors conceive of their teaching and learning as online or in person.

Crisis-Informed Pedagogy

From this experience with the pandemic, stakeholders now know that a crisis can arise at any time, and all should be ready to adjust. Crisis-informed pedagogy does not imply that you should avoid complex issues. Instead, it means that all stakeholders (administrators, teachers, students, and parents) should treat [unforeseen] issues appropriately, sensitively, and with an awareness of nuance and complexity (Aguilera & Nightengale-Lee, 2020). To the best of one's ability, anticipate possible land mines or sources of controversy and contention and navigate through them strategically.

Funding and Finances

Finally, COVID-19 has put immense pressure on state and college budgets from a socioeconomic perspective. To accomplish most of these recommendations, institutions will need to fund a variety of projects. These include faculty training, additional resources for faculty and students, investment in quality LMSs, purchasing good quality video conferencing tools, purchasing bandwidth for students in remote areas, and overall investing in efficient communication systems and alerts, so student needs are addressed promptly.

Using the findings of this study and those of McClure, et al. (2021), the importance of rural public colleges, whether HBCU or PWI, in a post-COVID world should not be missed. Two key takeaways from McClure, et al. (2021) include: rural public colleges "provide an access point for educational opportunity in rural communities," and these same colleges will need further funding to better "serve their communities through COVID-19 and beyond" (McClure, et al., p. 7). The current study revealed that students made

the overnight pivot to ERT, but not without challenges. The students valued the education their rural public college provided them, and therefore, continued to attend class virtually, complete assignments, and interact with their classmates and instructors as best they could. They faced the challenges of COVID-19 with the mission of becoming teachers in a post-COVID-19 world, many of whom will teach in rural schools, and as such, will be able to relate well with their future students who have lived some of the same experiences. The cultural shifts of the refreeze (Lewin, 1947) have the potential to affect P-20 rural education for university educator prep programs and local school districts alike.

Limitations

Some limitations exist for this study. First, the study involves only two institutions located in rural parts of Texas and Ohio; one was an historically black college (HBCU), and one was a predominantly white institution (PWI), thus limiting the generalizability across all rural institutions, whether they be HBCU or PWI institutions. Second, the swiftness with which the emergency pivot to remote learning happened and the need to capture data as quickly as possible while the experience was fresh in students' minds did not provide the opportunity for the researchers to pilot the survey to ensure it would capture the information necessary for the study (Mollenkopf & Gaskill, 2020). The participants themselves provide a limitation since all of them were upper-level students, many having already learned the nuances of university classroom life, thus having advantages over first-year students who may have found the experience quite different. Furthermore, since learning occurred remotely, not all students necessarily lived in a rural environment. Not all students in rural IHEs live in rural communities. Finally, since the survey data was collected electronically, students may not have provided nearly the amount of qualitative data that face-to-face interviews might have garnered.

Conclusion

While COVID-19 is undoubtedly not the first virus to disrupt conventional education (Adnan &

Anwar, 2020), it was undoubtedly the first to facilitate a global emergency pivot to remote learning. More importantly, the long-term effects of this emergency pivot are yet to be realized. Participants of the current study noted an increase in mental health issues as a result of COVID-19 due to various reasons, further supporting the research of others (Aguilera-Hermida, 2020; Hussein et al., 2020; Mishra et al., 2020).

What is currently known from this study is that university students have provided insight into ways to improve remote learning. Greater communication from instructors is crucial to student success, as Rapanta et al. (2020) supported. Students must have the security of instructor presence in the seemingly distant remote learning world (Turner et al., 2020). Creative lesson design and quality virtual interactions could generate more significant opportunities for student focus (Aguilera-Hermida, 2020; Hussein et al., 2020; Turner et al., 2020). Lastly, when schools reopen, they could be spaces of justice, high expectations, creativity, and processing the collective trauma of COVID-19 (Love, 2020).

Recommendations for Future Research

While this research has presented the perspectives of students from two institutions, providing data from rural stakeholders, the researchers acknowledge that additional research activities are needed:

1. Impact of faculty preparedness on student success.
2. Role of communication and support.
3. Modifying expectations for remote learning (What is reasonable?).
4. Technical knowledge and skills (Are these non-issues for today's students?).
5. External factors (What is entirely outside of an institution's control?).
6. Impact of faculty living in rural communities on rural IHEs.

Understanding the link between these foci and the effect on student success is essential. More importantly would be studies showing which of the focus topics, when manipulated, would increase student success during online and in-person teaching. Finally, the authors are curious about the impact faculty, from rural communities who implemented *Humanizing Pedagogy*, had with students attending IHEs in rural settings during the recent pandemic, compared with their counterparts.

"It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change." Charles Darwin

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