

**Student Attitudes Towards Changes in Higher Education Learning at Universities in
Response to COVID-19**

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Abstract

The onset of the COVID-19 pandemic in 2019 caused significant change in the function of society, which led to the formulation of procedures and policies to help contain the spread of COVID-19. The required adaptation of individuals to conform to a new way of life has caused significant change in the area of higher education. The study was conducted at Longwood University, a small co-ed public university located in Farmville, VA. The purpose of this study was to examine the attitudes of the students at Longwood University in response to the changes that have taken place at Longwood University in response to the COVID-19 pandemic. The hypothesis that tested was that students experiencing anxiety during the COVID-19 pandemic would have a negative attitude towards online learning. This was a mixed-methods study and the sample collected was a non-probability convenience sample. Data was collected through an online self-administered Google survey. The Qualitative data was collected through three open-ended survey questions and quantitative data was collected through multiple choice and 1-10 scale response questions. In order to operationalize the dependent variable of online learning the survey question “On a scale from 1-10 how confident do you feel in your ability to succeed in the online learning environment?” was used. In order to operationalize the independent variable of student anxiety the survey question “Would you say that you have felt more anxious during the COVID-19 pandemic?” was used. Through statistical analysis of the data collected, three themes persisted which included: anxiety, stress with online learning, and the feeling of loss of personal connection. The results of the study implicated that there is a strong correlation between increased anxiety during the COVID-19 pandemic and students' perceived ability to succeed in the online/hybrid learning environment.

Key words: COVID-19, anxiety, online/hybrid learning

Introduction

The present study assessed the attitudes of students at Longwood University in response to the changes that have taken place at the university in response to the COVID-19 pandemic. The problem that was addressed in this research study is the effect COVID-19 changes has had on students both academically, mentally, and socially. Research studies however have analyzed the linkage between anxiety and online learning even before the COVID-19 pandemic .

In a 2019 study, researchers conducted a cross-sectional study of university students in Germany and collected data through an online self-administered survey (Ringeisen, 2019). Researchers in the 2019 study concluded in their research that students who felt less in control of their learning environment had increased levels of anxiety. Multiple research studies were conducted in the beginning of 2020 right after the onset of the COVID-19 pandemic. Researchers in the beginning of 2020 conducted a study to measure the anxiety of students at universities in Jordan, the researchers collected data through a self-administered online survey questionnaire and concluded that students were indeed experiencing high levels of anxiety due to the COVID-19 pandemic (Cao, et al., 2020).

Similar studies were conducted in the same time period in 2020 in Jordan at the University of Jordan and in Wuhan, China. In the Jordan study students were given material questionnaire packets to assess their comfortability and anxiety with the changes due to the COVID-19 pandemic, students reported high levels of anxiety stemming from lack of social support (Cao, et al., 2020). The 2020 Wuhan study concluded through analysis of data collected via an online self-administered survey and students did experience high levels of anxiety when they felt information about the pandemic was being kept from them (Yang, Bin, & He, 2020). On a smaller scale another 2020 study conducted in the United Kingdom found through survey research that medical students reported that they felt anxious because they felt

under prepared for their field (Choi, Jegatheeswaran, Minocha, Alhilani, Nakhoul, & Mutengesa, 2020). However in another study conducted in China during 2020 which surveyed Ghanian international students, students reported a high degree of satisfaction with online learning which was inconsistent with the results of the aforementioned research studies (Demuyakor, 2020).

All of these mentioned studies displayed that there was significant void in the previous research related to student attitudes in response to the educational changes due to COVID-19. In order to further the understanding and be able to help students adapt and adjust to the new reality of higher education. If the relationship between the changes in higher education in response to the COVID-19 and how students are affected by said changes is not analyzed and observed then there is the possibility of long-term negative damage students into their adulthood. The purpose of this study was assess the relationship between students' perceived ability to succeed in the online/hybrid learning environment.

Literature Review

Colleges and universities have been forced to adapt with the evolution of technology as well as change to react to the changing circumstances and climate of the world. Higher Education has overtime utilized online resources in order to give instruction and communicate with students. Colleges and universities have come about that are completely online over the past two decades. However, due to the COVID-19 pandemic, beginning in 2019 Colleges and universities around the world have moved to online or hybrid learning strategies. With the sudden transition from in person to online/hybrid learning it is important to assess the impact online/hybrid learning has on students' mental health, specifically students' anxiety. Looking at the relationship between anxiety and online/hybrid learning is important because students in order to insure student success in higher education and

hopefully assess and prevent mental health effects that could affect students in the future.

Current research has looked at students satisfaction, mental health, degree of comfortability, and perceived possibility of student's success with online/hybrid learning.

In a 2020 research study, researchers looked at the anxiety and behavior practices of students at a university in Jordan and the effect of COVID-19 response on the student body (Olaimat, Aolymat, Elshahoryi, Shahbaz, & Holley, 2020). Researchers used an online questionnaire to collect data and received a response rate of fifty percent. The questionnaire assessed students socioeconomic status, concern for contracting the COVID-19 virus, knowledge of the virus, participants' exercise of COVID-19 prevention methods, and students anxiety levels in regard to being infected with COVID-19. The study found that socioeconomic variables varied across the board $\frac{2}{3}$ of the student population were experiencing high levels of anxiety but also high levels of acceptance of the seriousness of the pandemic.

Researchers in China in 2020 conducted a very similar study to the study previously mentioned at the University of Jordan (Cao, et al., 2020). However, the methodology in this study differed slightly. Students in the study were given questionnaire packets that used a generalized anxiety scale to respond to seven items as well as basic information. The study found that students were experiencing high levels of anxiety, one of the main contributing factors came from students feeling like they lacked social support. Another study done in Wuhan, China also in 2020 worked to uncover similar findings to the previously mentioned Chinese psychological study (Yang, Bin, & He, 2020). In order to assess the attitudes and behavior patterns of individuals an online survey was sent out to university students at four different universities in Wuhan. With the sample being from various geographic and demographic backgrounds, the researchers were able to draw conclusions from a large sampling frame. Researchers found that students were in support of policy to combat

COVID-19. However, the study showed that there was a large level of psychological distress, and strangely enough in the areas where COVID-19 cases were the lowest, individuals were experiencing the highest levels of anxiety. The researchers in the study concluded that with a high level of transparency from authority figures and high levels of psychological distress individuals in the study had a high level of compliance with COVID-19 prevention policies.

On a smaller scale, researchers further away from the epicenter of the COVID-19 pandemic in a 2020 study looked at the psychological impact of COVID-19 changes on higher education students (Choi, Jegatheeswaran, Minocha, Alhilani, Nakhoul, & Mutengesa, 2020). The researchers assessed the confidence and preparedness felt by medical students in the United Kingdom due to the changes in their education from COVID-19 changes. In terms of methodology students across thirty-three medical schools in the United Kingdom were given an online questionnaire with 10 multiple choice and Likert response scale questions. Researchers concluded through collated results that students felt like they were under prepared and less confident going into their field but understood that the change to their curriculum was unavoidable due to the pandemic.

The attitude of acceptance among students in higher education was again reflected in another 2020 research study of Ghanaian international students studying in China during the onset of the COVID-19 pandemic (Demuyakor, 2020). The researchers in the study worked to assess students in the study's satisfaction with online learning, resources available to them, knowledge of the COVID-19 pandemic, and the challenges the students are facing with online learning. Students were sent an online survey over the course of a month that received a high response rate of 95%. However this response rate could be due in part that the study was conducted with a very small sample population. The study found that students were majority satisfied with the online learning and resources that were available to them and their

knowledge of the pandemic was proficient. This study lacked in depth analysis and detailed procedure.

Similar to the aforementioned study of Ghanaian International Students in China, researchers in another 2020 study assessed the degree of acceptance by college students of the shift to online learning (Cheng, Wang, Shen, & Chang, 2020). In this study 270 college students were surveyed through an online questionnaire. The questionnaire consisted of thirty-six questions geared to assess students' attitudes and emotions in response to the turn to online learning during the COVID-19 pandemic. The study found that the students very much were struggling with the lack of face-to-face learning and that the lack of preparation for the transition greatly affected the confidence that students had in the education they were receiving. Therefore students did not feel a sense of control and stability in their education which led to heightened anxiety.

Prior to research on student anxiety and online learning during the COVID-19 researchers looked at student anxiety with online learning. Researchers in a 2019 study looked at how perception of success and emotions relate to one another through a survey of 220 university students in Germany (Ringeisen, 2019). The survey given was online and cross sectional, and it was insured that the participants had participated to some degree in online learning. Researchers in the study found individuals' level of anxiety and their perception of their ability to succeed in the online learning environment was largely based upon the degree of control the respondents felt. The more in control the respondents felt the lower their individual anxiety level.

The previous research that has been done on student anxiety and online learning seems to be expansive however the research that has been done leaves significant gaps in knowledge. Previous research has received a large degree of criticism in regards to proper sample sizes. Most of the aforementioned research was conducted with small populations

making it difficult to generalize the data and apply findings to the larger global majority of college students. Also much of the research listed has been heavily criticised because it was done very closely to announcements of government leaders concerning the COVID-19 pandemic and guidelines to proceed. More current research needs to be done about the relationship of anxiety with online learning now that the COVID-19 pandemic has persisted in the world for a longer duration than initially anticipated.

Data & Methods

Sample

The type of sample used in this study was a non-probability convenience sample. The population that was observed were the students at Longwood University. Data was collected through a self-administered online Google survey sent out through the internet titled: “Attitudes towards changes related to COVID-19.” The questions included in the survey were asked in a variety of formats, including open ended questions, multiple choice, and 1-10 scale responses. The questions asked about how students were adjusting to online classes, changes in motivation, student anxiety levels returning to campus, what the greatest areas of concern for students are, and what students thought Longwood University was or was not doing well in COVID-19 policy response. The survey was sent to the Longwood University Sociology, Criminology, and Anthropology Department faculty members, as well as the coaches in the Longwood Athletic Department and both were asked to distribute the survey to their students. In addition to sending the survey to the faculty members in the two previously listed departments the survey was also sent directly to students, members of the research team sent the survey to members of greek organizations on campus that the researchers themselves were a member. The survey was also sent to Longwood University class facebook pages by members of the research team. The survey that was sent out was anonymous, students were

informed that their participation was voluntary, no harm would come to the participants, and that failure to complete the survey would result in no penalty to themselves.

Quantitative Data

In order to operationalize the independent variable of student anxiety I used the question “Would you say that you have felt more anxious during the COVID-19 pandemic?” Participants answered on a scale that gave insight into students sources of anxiety. The possible responses consisted of “Yes, because I'm worried about health issues”, “ Yes, because I'm worried about my education”, “Yes, because of both health issues and educational changes”, “No”, “I’m not sure”, and “maybe.” In order to operationalize my dependent variable of online learning I used the question “On a scale from 1-10 how confident do you feel in your ability to succeed in the online learning environment?” I have analyzed these close-ended survey questions using descriptive characteristics and figures.

Qualitative Data

The survey included three open-ended questions: “Have the changes to classes affected your motivation to learn course material? If yes, how so?” “What seems to be working well this semester?” and “Is there anything you would like us to know related to Longwood and changes due to COVID-19?” The open ended questions provided the qualitative data for the study. A total of 432 students, which meant almost every student answered this question. In order to analyze the themes of the written responses an open-ended qualitative coding technique was used.

Quantitative Findings

The dependent variable for this study is students' self assessment of their ability to succeed through online learning. Answers ranged from 0- “not confident at all,” to 10- “extremely confident.” The mean for this variable was 6.19 with a standard deviation of 2.38. This means that 74% of students answered between 3.81 and 8.57. This shows that there was a high level of variance in answers on the dependent variable. The independent variable in this study was student anxiety during the COVID-19 pandemic the descriptive statistics for the independent variable are located in Table 1. The stated hypothesis is that students experiencing anxiety during the COVID-19 pandemic will have a negative attitude towards online learning.

Table 1.

Percentage of students feeling anxious during the COVID-19 pandemic.

Anxiety During the COVID-19 Pandemic	Count	Percent
Yes,because I am worried about health issues.	19	4.40
Yes,because I am worried about my education.	82	18.98
Yes, because I am worried about health issues & educational changes.	257	59.49
No	48	11.11
I'm not sure	13	3.01
Maybe	13	3.01

Note. N=432

For the question, Would you say you have felt more anxious during the COVID-19 pandemic, 4.40% of students reported feeling anxious because they were “worried about health issues.” 18.98% of students reported feeling anxious because they were worried about their education. 257 respondents reported feeling anxious “because of both health issues and educational challenges” which made up 59.49% of the total responses 11.11% of students

reported not feeling anxious during the COVID-19 pandemic, 3.01% of students reported that they were not sure whether they were anxious during the COVID-19 pandemic, and 3.01% of students reported that they “maybe” are feeling anxious during the COVID-19 pandemic.

When self assessed ability to succeed with online learning was compared to anxiety felt during the COVID-19 pandemic students who reported lower levels of confidence in their ability to achieve success with online learning also reported feeling anxiety during the COVID-19 pandemic. Students who said “Yes, because I’m worried about health issues” had a mean of 7.6, students who said “Yes,because I'm worried about my education has a mean of 5.62, and students who said “Yes, because I am worried about health issues and educational changes” which had the highest frequency of response had a mean of 5.9. Students who responded “No” had a mean of 7.31, students who responded “I’m not sure” had a mean of 7.92, and students who responded “maybe” had a mean of 7.67. Results for this analysis located in Table 2.

Table 2.

Mean score of ability to succeed by anxiety during the COVID-19 pandemic.

Anxiety During the COVID-19 Pandemic	Means
Yes,because I am worried about health issues.	7.63
Yes,because I am worried about my education.	5.62
Yes, because I am worried about health issues & educational changes.	5.9
No	7.31
I'm not sure	7.92
Maybe	7.67

Note. N=432

Table 2 shows the comparison between the respondents feeling of anxiety during the COVID-19 pandemic compared to the confidence students felt in their ability to succeed in the online learning environment. The researchers hypothesis in this study was that students

experiencing anxiety would have a negative attitude towards online learning. The data supports this hypothesis because students who reported feeling confident in online learning also responded “no” “maybe” or “I’m not sure” in response to whether or not they felt anxious during the COVID-19 pandemic. In correspondence with this, the data reflects that respondents reported low levels of confidence in their ability to succeed in online learning, when having also reported feeling anxious during the COVID-19 pandemic by selecting one of the aforementioned “yes” responses. It is proper to conclude that the data strongly supports the stated hypothesis.

Qualitative Findings

The data suggest that with the shift to online/hybrid learning students are struggling with three main areas of concern, students reported that they are experiencing anxiety; varying levels of stress; and the feeling of loss of personal connection. Although students seem to have a great level of understanding of the need to shift to the online learning/hybrid format, a large number of respondents reported a lack of motivation. Respondents found it difficult to stay on task during lectures due to the fact that in some of their classes they are not required to have their camera or microphone on during classes increasing their tendency to get distracted and to complete other tasks during their online lectures. With online lectures, exams, and quizzes respondents also stated that they were feeling very anxious, and feeling as though they cannot keep up with instruction. Some of the respondents stated that they are less successful in online assignments due to the increased level of pressure they are experiencing. Respondents also frequently mentioned feeling disconnect between not only students and professors, but students and their peers as well with online/hybrid learning. Some respondents, however, displayed a contrasting attitude, conveying in their responses that online learning has lessened their stress level and increased time management skills. The

respondents' attitudes and feelings are strongly in line with the data that has been presented in previous research conducted about students' anxiety and success with online learning. While a majority of individuals feel an increased amount of pressure in the online learning environment others feel a sense of control over their work with the in-person component having been removed.

Anxiety

When respondents were asked the question “Have the changes in classes affected your motivation to learn course material? If yes, how so?” the majority of respondents answered overwhelmingly with “yes”. However, the qualitative data collected showed that only one respondent reported an increased level of anxiety with online learning in their response:

“Yes, I have lost all effort and motivation to attend/participate in my classes. Learning is significantly harder because some of my professors are moving too fast and refuse to slow down when a student asks. When taking tests or quizzes, honorlock is an awful way to moderate as it is more invasive and should not be used because for students who already have test anxiety, honorlock makes it worse.” (Student 098)

The student, as exemplified in their response, associated their stress with online learning with their lack of motivation to not only engage in their classes but to even attend their classes at all. The anxiety the student is experiencing with online learning is in regard to the online proctoring mechanism used by the University. The student feels as though their anxiety is more so increased with the online proctoring of quizzes and exams than there would be if they had been taking them in person. The response indicates that the student feels as though the online assignments hinder their success with online learning. It is important to

take in account however that the feeling of anxiety with online learning was only mentioned by one student. Therefore it is difficult to include through the qualitative data collected that anxiety with online learning is a major component affecting the lives of a large number of students at Longwood University but it is however present.

Stress With Online Learning

The qualitative data suggests a strong correlation between stress and online learning. While moving classes to the online/hybrid format has definitely changed the lives of students and professors there is definite split in how the stress levels of students have been affected. Some respondents have found the shift to online/hybrid learning has lessened their stress levels. For example:

“Online classes have made it easier to go home and work on my coursework in a less stressful environment. I believe that they give students the flexibility to travel for mental health and stress release without the stress of missing classes.” (Student 103)

“Personally, I feel more in control of my time. I have been able to manage my time so much better with hybrid/online classes. It has definitely helped reduce the stress of getting to class on time.” (Student 340)

As exemplified above students feel like with online/hybrid learning they are in more control of how and when their assignments get done. Some of the students seem to enjoy the flexibility they feel like they are being offered with online/hybrid learning. When asked in the survey “What seems to be working well this semester?” one student stated that “My classes are overall less stressful” (Student 386). However, contrasting to the above responses, when asked the same question another student responded that “Nothing honestly, I guess i’m learning how to relieve stress better because I get so much nowadays” (Student 092). The

frustration, lack of motivation, and increased stress level of students with online learning can be correlated with socioeconomic factors that have shifted due to COVID-19. For example:

“Absolutely, especially now that I am working (My parents lost their jobs to the virus so I am trying to juggle a job that is overworking me and school full time), learning material has put an extreme stress on me and makes it not motivating to learn.”

(Student 261)

COVID-19 has brought on an increasing level of financial responsibility for some students, which makes their education share priority in their lives. Some students found that the hybrid learning platform and having to shift from being in person to zoom at different points in the week add another level of stress to their educational experience. For example: “Yes, hybrid classes cause more stress to me than anything. They make me not want to attend them.”

(Student 265). The data suggests that students that feel as though online/hybrid learning has given them more control of their lives experienced a decrease in their stress levels, while students who feel that online/hybrid learning has lessened the control they have over their lives have experienced increased levels of stress.

Personal Connection with Online Learning

One of the struggles students reported that they faced with online/hybrid learning is feeling disconnected from faculty members and their peers at Longwood University. When students were asked the question: “Have the changes in classes affected your motivation to learn course material? If yes, how so?” The direct relationship between lack of motivation and lack of personal connection was mentioned very frequently by students. For example:

“Yes because, for my online class, I feel completely disconnected from my instructor and the rest of the class. We do discussion boards every week but I have hardly gotten any direct interaction from my professor. Without that interaction, we as students aren’t seeing the excitement our professor has about the content and are therefore less

enthusiastic about it ourselves. The coursework is merely something I put on the back-burner until the end of every week when the discussion boards are due.”

(Student 338)

As exemplified in the response about the qualitative data suggests that with personal connection being removed with online learning students feel as though the subject matter in their class are of less importance, leading students to feel less motivated to not only complete their school work but to input maximum effort into the work's completion. Students continuously exemplified this correlation they stated that “ Online learning is very hard to stay motivated in. Without the Personal Connection it is very difficult” (Student 177) and “Yes, I do not feel the personal touch from professors that used to motivate me” (Student 279). The qualitative data clearly reflects that without personal connection students do not feel like they can succeed to the same potential with online/hybrid learning because without the connection with professors and peers students found it more difficult to motivate themselves, due to the fact that consequently when personal connection is removed the students associate the task and material at hand with less value.

The central areas of concern for students suggested by the qualitative data, anxiety; stress; and loss of personal connection with online learning have significantly affected student’s perceptions of their ability to succeed with online/hybrid learning. Students reported a low level of motivation to participate in online/hybrid learning assignments and classes. Students showed that they placed less value and importance on assignments in the hybrid/online learning environment making them even less motivated to complete their work. With the personal connection removed with online learning, the qualitative data shows that students felt very disconnected to their courses, peers, and instructors and for some this led to higher stress levels with the entrance of outside variables and distractions. While for others

the disconnect the school community and classroom served have an extreme negative effect on stress levels. The data also shows that some students found that with online learning techniques and proctoring increased levels of anxiety. Overall with the absence of fully in-person instructions the qualitative data shows that students whether positive or negative (majority negative) have experienced an extreme shift in their learning experience and their own perception of their ability to be successful with the changes caused by COVID-19.

Conclusion

The purpose of this study was to examine the relationship between students' perceived ability to succeed in the online/hybrid learning environment. Through careful analysis of the data collected through the online self-administered survey that was sent out to students at Longwood University it is proper to conclude that students who were experiencing anxiety due to the COVID-19 pandemic had a more negative attitude towards their ability to be successful in the online/hybrid learning environment. The independent variable that was tested was student's anxiety due to the COVID-19 pandemic which was operationalized through a multiple choice question that gave insight into students sources of anxiety. The possible responses consisted of "Yes, because I'm worried about health issues", " Yes, because I'm worried about my education", "Yes, because of both health issues and educational changes", "No", "I'm not sure", and "maybe." The dependent variable for this study is students' self assessment of their ability to succeed through online learning. Answers ranged from 0- "not confident at all," to 10- "extremely confident."

Through the careful assessment and bivariate analysis of the quantitative and qualitative data it was reflected that students who reported high levels of anxiety also reported that they had a lack of confidence in their ability to succeed in the hybrid/online learning environment which supported the stated hypothesis. In the quantitative findings the research showed out of the large volume of students reported who experienced anxiety,

“because of both health issues and educational challenges” made up 59.49 % of responses.

When the independent variable of student anxiety was compared to the dependent variable of bivariate analysis, the results showed a direct correlation between anxiety and students perceived ability to succeed in the online/hybrid learning environment. The means of the two variables found in the bivariate analysis showed that the consistency between respondents reporting the two variables.

The qualitative findings displayed three major themes amongst respondents that were consistent with the quantitative data that was collected. Qualitative data was collected through a series of open-ended questions. The respondents expressed that they were experiencing anxiety and stress with online/hybrid learning as well as a lack in personal connection which some respondents reported contributed to a decrease in motivation to complete academic work. The majority of respondents displayed negative attitudes towards online/hybrid learning and perceived their educational experience during the COVID-19 pandemic as not only unsuccessful but also having had a negative effect on other aspects of their lives, largely their confidence and mental health.

Overall, the data showed that students whether positive or negative (majority negative) have experienced an extreme shift in their learning experience and their own perception of their ability to be successful with the changes caused by COVID-19.

The findings of this study are largely important in regard to the mental health of individuals in higher education. With direct correlation between student success and anxiety universities should consider providing outlets for students such as mental health resources and possibly a reanalyze online/hybrid learning in higher education to prevent negative long term effects on students.

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