

University of Central Florida

STARS

Graduate Thesis and Dissertation 2023-2024

2024

A Pandemic in the Educational Sphere: Collecting and Understanding Students' Responses to University Communication on COVID-19

Matthew R. Stapleton
University of Central Florida

Find similar works at: <https://stars.library.ucf.edu/etd2023>
University of Central Florida Libraries <http://library.ucf.edu>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Graduate Thesis and Dissertation 2023-2024 by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

Stapleton, Matthew R., "A Pandemic in the Educational Sphere: Collecting and Understanding Students' Responses to University Communication on COVID-19" (2024). *Graduate Thesis and Dissertation 2023-2024*. 336.
<https://stars.library.ucf.edu/etd2023/336>

A PANDEMIC IN THE EDUCATIONAL SPHERE: COLLECTING AND UNDERSTANDING
STUDENTS' RESPONSES TO UNIVERSITY COMMUNICATION ON COVID-19

by

MATTHEW STAPLETON

M.A. Writing, Rhetoric, & Media, Clemson University, 2020

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Texts & Technology
in the College of Arts and Humanities
at the University of Central Florida
Orlando, Florida

Summer Term
2024

Major Professor: Sonia Stephens

© 2024 Matthew R. Stapleton

ABSTRACT

This dissertation addresses the lived experiences of Florida college students during the COVID-19 pandemic, specifically the communication that was provided to them through their university on the subject of the pandemic. This two-stage research process first involved the collection of survey responses on a variety of pandemic communication-centered topics from 39 university students from three universities (University of Central Florida, University of Florida, and University of South Florida). Second, a subsequent interview with 7 students provided qualitative information to further explicate themes and trends seen through data analysis.

Using health and technical communication alongside crisis communication analyses to understand what elements of university information transmission were most effective and recollected, the triangulation of data points and recommendations for future pandemic communication were able to be created in an effort to provide a better framework for student expectations in the future pandemics. Results of students' opinions on their university's communication were that overall messaging was strong and confidence in their institution was generally high, with some negative sentiments on how universities handled the struggle of clubs and universities and onboarding new students into the academic environment during the pandemic.

Recommendations were made for universities to prepare frameworks for university students to maintain their abilities to organize and join clubs during significant disruptions to campus life, to retain and build on the confidence students had in their position as an authority on health information, and to resume pandemic messaging due to the ongoing risks to health from long COVID and reinfection.

This dissertation is dedicated to my family, who helped me so much through my PhD and dissertation journey: Robert, Sarah, Chloe, and Louie Stapleton. To my grandparents who watched me start this journey, and I'm sure are proud to see me cross the finish line: Priscilla and Philip Sliney, Margaret and John Stapleton. And to my extended family, who has offered nothing but unconditional support over the years.

ACKNOWLEDGMENTS

I'd like to thank the Texts & Technology program staff for helping me along with my dissertation and providing valuable support from start to finish on this project. From the professors who gave me advice to my fellow colleagues who lent me a hand, I wouldn't have made it through the pandemic without you.

I would like to thank my dissertation chair and advisor Dr. Sonia Stephens for her support through this process and providing me with a strong foundation while my research and writing ebbed and flowed. I'm sure I sounded like a raving lunatic from time to time, and I'm glad we were able to work together as I explored both medical and technical communication and rhetoric.

I would also like to thank my entire committee: Dr. Sara Raffel, Dr. Blake Scott, Dr. Timothy Sellnow and Dr. Huiling Ding. For Dr. Raffel and Dr. Scott, I was grateful to be able to bring you along from the candidacy exams into my dissertation, and your support has been invaluable. And to my external members Dr. Sellnow and Dr. Ding, who made sure the process went smoothly and gave me critical advice, which always seemed to time itself with ongoing conferences.

And to my friends and family, who always listened patiently while I prattled on about one subject or another related to COVID-19.

TABLE OF CONTENTS

LIST OF FIGURES	ix
LIST OF TABLES	x
LIST OF ABBREVIATIONS.....	xi
CHAPTER ONE: INTRODUCTION.....	1
Research Questions	4
Chapter Descriptions.....	5
CHAPTER TWO: LITERATURE REVIEW.....	8
Timeline of COVID-19 in United States Universities	8
Government Agencies and Technical Communication	13
History of Pandemic Education in United States Universities.....	15
Existing Medical Communication at Universities	22
CHAPTER THREE: SURVEY METHODOLOGY	25
Introduction.....	25
Research Design.....	26
Explanation of Survey Method	26
Development of Survey Platform and IRB Approval	30
Participant Recruitment.....	31
Selection Criteria for Universities	31
Data Collection	33
Timeline of Data Collection.....	33
Data Privacy.....	33
Survey and Preliminary Data	34
Survey Sections and Questions.....	34
Preliminary Data	42

Preliminary Results	43
Conclusion	64
CHAPTER FOUR: INTERVIEW METHODOLOGY	65
Introduction	65
Rationale for Interviews.....	66
Justification for Mixed-Methods Approach	66
Interview Protocol Development	68
Participant Selection	70
Recruitment of Participants.....	70
Conducting Interviews	71
Logistics of Conducting Interviews	71
Documentation and Recording	72
Preliminary Data	74
James.....	75
Taylor	76
Alex.....	77
Jordan.....	79
Blake	80
Cameron.....	81
Garth	82
Conclusion	83
CHAPTER FIVE: FINDINGS AND CONCLUSIONS	85
Introduction.....	85
Discussion of Findings.....	86
Efficient Methods of University Communication.....	87
The Spread of Misinformation or a Lack of Knowledge?	90

Degradation of the Community and Communication by the Pandemic	92
Contribution to Knowledge.....	94
Key Findings on COVID-19's Impact on College Students	94
Areas of Further Exploration	97
Study Limitations.....	98
Research Question Responses.....	100
RQ#1: Medical Information's Dissemination into a Community	100
RQ#2: Updated COVID Beliefs	101
RQ#3: The University's Role in the Pandemic	101
RQ#4: Students' Knowledge of Unchanged University Medical Practices	102
RQ#5: University Success	102
Recommendations for Policy and Practice	103
Where Universities Succeeded	103
Conclusion	105
Looking at the Future of Pandemics and Health Communication	106
APPENDIX A: IRB EXEMPTION DETERMINATION	108
APPENDIX B: SURVEY RECRUITMENT EMAIL FOR DEPARTMENTS.....	111
APPENDIX C: EXPLANATION OF RESEARCH FOR SURVEY	113
APPENDIX D: INTERVIEW CANDIDATE EMAIL.....	115
APPENDIX E: EXPLANATION OF RESEARCH FOR INTERVIEW	117
APPENDIX F: EMAIL REQUESTING CONSENT TO BE RECORDED	119
APPENDIX G: INTERVIEW PREFATORY QUESTIONS	121
LIST OF REFERENCES	123

LIST OF FIGURES

Figure 1: Please Wear A Mask	11
Figure 2: Halt the Epidemic!	17
Figure 3: Eat More ONIONS	18
Figure 4: AIDS IS NO PARTY	21
Figure 5: Responses to “Which university did you attend?” (n=39)	45
Figure 6: Responses to “What year are you in your current program?” (n=39)	46
Figure 7: Results of “To the best of your recollection, please select all of the following COVID-19 precautionary measures that you believed your university communicated to you about.” (n=34)	48
Figure 8: Results of “Did your university transfer most non-lab classes online during any academic semester between Spring 2020 and Spring 2022?” (n=34)	50
Figure 9: Results of “To the best of your recollection, please select the semesters that your university transferred most non-lab classes online.” (n=19)	50
Figure 10: Results of “Which of these best describes your college experience?” (n=31)	51
Figure 11: Results of “To the best of your recollection, did your university implement a mandatory mask mandate during any academic semester between Spring 2020 and Spring 2022?” (n=34)	52
Figure 12: Result of “Please select the semesters that your university implemented a mask mandate.” (n=12)	53
Figure 13: Result of “Did someone you know get vaccinated on campus?” (n=18)	55
Figure 14: Result of “Has someone you know caught COVID-19 while on campus?” (n=31)	57
Figure 15: Likert Scale Data Visualization (n=30)	63

LIST OF TABLES

Table 1: Participation Questions.....	35
Table 2: Basic Questions	36
Table 3: COVID Questions	37
Table 4: Demographic Information	40
Table 5: Likert Scale Questions, with Categorizations indicating Question Intent.....	41
Table 6: Results for “OPTIONAL: Please describe your gender identity.” (n=30).....	44
Table 7: Results for “OPTIONAL: Please describe your race and ethnicity.” (n=30)	44
Table 8: Responses to “Please describe your current major or program of study.” (n=36).....	47
Table 9: Result of “Where have you seen COVID-19 information distributed by your university?” (n=31)	56
Table 10: Results for “Does your university have a mandatory COVID-19 vaccination?” (n=31) and “Does your university have mandatory vaccinations for diseases OTHER than COVID-19?” (n=31).....	58
Table 11: Likert Scale Answers (n=30)	60
Table 12: Interview Protocol for Candidates.....	69
Table 13: Demographic Information of Interview Participants.....	74
Table 14: Table of Thematic Analysis	96

LIST OF ABBREVIATIONS

AIDS: Acquired immunodeficiency syndrome

CDC: Center for Disease Control and Prevention

COVID-19: Coronavirus disease 2019; SARS-CoV-2

FAMU: Florida A&M University

H1N1: Swine flu

H5N1: Avian flu

HEPA: High efficiency particulate air filter

HIV: Human immunodeficiency virus

HPV: Human papillomavirus

HVAC: Heating, ventilation, and air conditioning

PrEP: Pre-exposure prophylaxis

UCF: University of Central Florida

UF: University of Florida

USF: University of South Florida

WHO: World Health Organization

CHAPTER ONE: INTRODUCTION

In December of 2019, the world became aware of a rapidly spreading virus, now known as COVID-19. This severe acute respiratory syndrome coronavirus (SARS-CoV-2) was first identified in the Wuhan province of China and was characterized as highly infectious with an unknown transmission method at the time of origin. The disease spread rapidly through both symptomatic and asymptomatic travelers, appearing in countries across the globe in a manner of mere weeks (Taylor, 2021). As a result, global governments began to take action in March of 2020 by imposing a series of lockdowns and health safety measures in order to combat the spread of the virus. As hospitals and other care providers globally began to be overrun with severe cases, the death toll began to rise drastically. Messaging campaigns at the time from health and government organizations focused on the known symptoms (e.g., lack of taste and smell, cough) and promising precautions (e.g., six-foot rule, masks, hand sanitizer) and emphasized that these indicators and strategies were the best way to prevent infection and subsequent death. As a result, these preliminary reactions became embedded in the memories of many individuals, regardless of their effectiveness once proper studies were eventually conducted, given time and the eventual development of a series of vaccines. This beginning period of pandemic marked a cultural inflection point in many areas politically, socially, and economically.

For the United States, the initial outbreak and spread of COVID-19 coincided with the 2020 presidential election season between Republican-incumbent Donald Trump and Democrat Joe Biden, which led to the disease playing a major role in the campaign strategies between these two teams. Beliefs were highly polarized as a result; some believed that the pandemic was

overblown and wished to lift the lockdown precautionary measures, while others were cognizant of the pandemic's impact on the general public due to a lack of a vaccination or effective treatment. Previously apolitical entities became similarly polarized, with the Center for Disease Control and Prevention (CDC) and Chief Medical Advisor to the President Anthony Fauci becoming the center focus for many of the accusations and blame surrounding the pandemic's impact on different sectors. The first vaccinations for COVID-19 were authorized in December 2020 following a highly combative election season with Biden winning the presidency, but the previously mentioned polarization of both the pandemic itself and the health administration entities in the United States caused vaccine rollout to falter contrary to health models. Despite the outreach of the vaccines not reaching the necessary levels for a practical impact on overall immunity (Huang et al., 2021; Dror et al., 2020), federal restrictions for the lockdown were broadly lifted at the end of 2021 (Yakusheva, 2022), leading to recurring waves and outbreaks of variants even among the vaccinated.

Research into the disease has continued, revealing that the virus is capable of impacting various organs and depressing the immune system in a diagnosis known as "Long COVID," as well as further understanding the actual transmission methods as droplets and particulates in the air through breathing. Newer methods of transmission control have been developed in lieu of proper vaccine rollout, with ventilation and better masks providing the basis for preventing reinfection. Masking after vaccination, alongside HEPA filters and HVAC systems, have been touted as the best and most prominent ways to further prevent the spread of COVID among both the vaccinated and unvaccinated (Bartsch et al., 2022; Berry et al., 2022). However, actual masking rates declined to just 30% by 2023 and have continued to drop (Saad, 2023).

For students in the United States, universities became the loudspeaker through which most COVID-19 information was disseminated and spread. A majority of universities excused students from physical classes for the Spring and Summer 2020 semesters while still attempting to provide on-campus accommodation for residents while preventing COVID-19 outbreaks to mixed success. In Fall of 2020, 92% of universities returned to in-person teaching and dormitory living (McFall-Johnsen, 2020), utilizing a large number of COVID-19 prevention methods that varied by individual university. While some universities implemented partial location lockdowns and contact tracing, the majority simply suggested masking and eventual vaccination to their students, a method which relied on student goodwill and universities' ability to disseminate local information alongside the federal recommendations.

Medical and health-related COVID-19 communication research often emphasizes the actual spread of the outbreak and general opinions of government health agencies during the initial timeframe, as well as trying to understand the ongoing moral dilemma faced by the general public over whether or not to get vaccinated caused by the political polarization of elements related to the pandemic (Abrams & Greenhawt, 2020; Ledda et al., 2021; Mossa-Basha et al., 2020). I believe that universities and student communities serve as a fairly insular space in which COVID-19 information can be clearly communicated or ignored by participants, and the students themselves prove to be the best possible source of information through which to draw conclusions. These students' lived experiences as members of a campus community are important to document and analyze, particularly through the lens of biases and perspectives individual students might have on medical information and political polarization.

With COVID-19 guidelines and communication across universities being decreased dramatically, the number of current students who have firsthand experience of living in a campus

setting and receiving university-centered medical information as a primary source of medical information grows scarcer with each passing semester. Students who were freshmen during the initial “COVID semester” of Spring 2020 are on average graduating by Spring 2024. In order to preserve their lived experiences during the height of pandemic information and debate, surveying and collecting their thoughts is necessary to glean important insights about what universities succeeded and failed at with regards to their public messaging strategies on this specific medical information. For newer students who may have been in high school or out-of-education during the initial outbreak of COVID-19 and subsequent waves, they are able to provide a fresh insight into what universities are currently communicating regarding COVID-19 and the ongoing belief systems of students in a politically polarized environment.

Research Questions

The primary object of this research is to study the perceived legitimacy and reception of COVID-19 information distributed by universities to their student bodies. To achieve this objective, five primary research questions have been created to guide the discussion:

RQ1: How does medical information disseminate within a university community?

RQ1A: How does medical misinformation turn into medical disinformation?

RQ1B: How does novel medical information contest existing medical information?

RQ1C: Have students’ perceptions of medicine changed because of the pandemic?

RQ2: What information do students believe or not believe with regards to COVID now?

RQ3: What were students’ reactions to their university’s COVID plans and recommendations?

RQ3A: Do students understand the medical information they are provided?

RQ3B: Are interview responses on COVID affected by the physical or digital space of the interview?

RQ4: Are students aware of the existing medical policies at their universities which were unchanged due to the pandemic?

RQ4A: Have students conflated COVID vaccinations with other vaccinations?

RQ5: Were universities successful at communicating COVID information?

RQ5A: Were universities successful at releasing updated COVID information following new research?

Chapter Descriptions

This dissertation has five chapters in total. With students' understanding of COVID-19 information serving as the cornerstone of the research direction, the study includes a survey distributed to different university departments and follow-up interviews with selected respondents to the survey.

Chapter Two serves as the literature review for this study. It discusses the relationship between health communication and rhetoric within universities' communication strategies. Subsequently, it views how that directly relates to the research questions raised on students' feelings. As a fundamental part of this communication, COVID-19 health guidelines published and discussion within the dissertation are included in the literature review. In order to provide a

contextual background for the analysis of the data, previous epidemics and pandemics within university settings and their requisite communication are also discussed.

Chapter Three focuses on the survey, which was successfully distributed to students via emails at three universities: University of Central Florida, University of Florida, and University of South Florida. A fourth institution, Florida A&M University, was unsuccessfully contacted regarding the distribution of the survey. The research design of the survey is detailed in order to understand the reasoning behind the creation of specific survey questions and sections. Subsequently, the survey itself is explicated and displayed in order to understand design decisions and internal data labeling. A cursory overview of the survey results is then presented with analysis that creates a framework for Chapter Five.

Chapter Four focuses on the follow-up interview with students who responded to the survey detailed in Chapter Three. The research design and choices in question methodology is described to display the foundation for such selections. Subsequently, interview questions and strategy are posted in order to communicate the decision-making process and how the semi-structured interview was actually conducted. Finally, a summary of each participants' interview is listed alongside a brief analysis of the major themes related to this research study that were noted and discussed within.

Chapter Five utilizes the results detailed in Chapters Three and Four to triangulate and understand the findings of the research using thematic analysis, and to move forward with potential claims made from the summation of the data. The most prominent themes derived from the quantitative survey data and qualitative survey results are displayed and discussed in order to understand which elements of university communication were most often recalled and in what fashion by participants of this research. Both the positives and negatives of university

communication are noted, which are subsequently utilized to provide recommendations for the three Floridian universities to develop stronger health communication protocols and frameworks for preparing themselves for potential future pandemics. Recommendations are also made for future research on this subject, with the limitations of this study noted as an opportunity to grow and learn from issues that were part of this study. Finally, the conclusion to this data is discussed, with a reflection on the data collection process and predictions for the future of health communication amidst the presence of a recent pandemic as a whole.

CHAPTER TWO: LITERATURE REVIEW

Timeline of COVID-19 in United States Universities

The SARS-CoV-2 virus (COVID-19) was first identified in the Wuhan province of China in 2019. The province's local health organization, the Wuhan Municipal Health Commission, "issued two emergency notices for internal circulation to local hospitals alerting them to patients with unexplained pneumonia" on December 30, 2019 (Worobey, 2021, p. 1202). The World Health Organization (WHO) was then notified of the potential for pandemic the following day, December 31, 2019. During January and February of 2020, the United States government began to monitor American cases of the disease through the Centers for Disease Control and Prevention (CDC), as well as recommending and enforcing travel guidelines and restrictions for travelers from a number of countries including China. As the death toll for the disease began to increase dramatically, the WHO declared COVID-19 a pandemic on March 11, 2020, stating that they believe that the pandemic can possibly be contained if "countries detect, test, treat, isolate, trace, and mobilize their people in the response" (World Health Organization, 2020). On March 13, 2020, the White House under the Trump administration declared a national state of emergency, officially restricting all travel from China, Iran, and the Schengen area of Europe¹ (Trump White House, 2020). Two days later on March 15, 2020, the first school systems and universities began to shut down and transition to virtual classes in an attempt to control the spread of the pandemic, with the New York City school system's signaling the implementation of this strategy due to the district's size (City of New York, 2020).

¹ The Schengen area of Europe refers to the free movement zone in the European Union (EU), which allows citizens of the EU to work, live, and travel without restrictions among countries that are part of the international treaty. Croatia, Cyprus, Ireland, and the United Kingdom are not included in the Schengen area. Bulgaria and Romania joined the Schengen area in 2024, and thus weren't banned from travel to the United States at the beginning of the COVID-19 pandemic.

University students in the United States were impacted by the COVID-19 pandemic immediately, with a number of international students becoming stranded in the US. Following the broad closure of school systems and universities in March of 2020, students from many countries were unable to return home despite the closure of campus buildings and dorms, leaving a number effectively homeless due to the Trump administration's "America-first agenda"²...[with] international and undocumented students [being] excluded from the roughly \$6 billion in federal aid targeted to help students pay for expenses like food and housing" (Dickerson, 2020). Sahu (2020) characterized six distinct challenges that universities would face as classes became disrupted due to COVID-19: virtual class changes, assessments and evaluations, travel restrictions, mental health, and support services provided by the university. Following the disruption of the Spring 2020 academic semester, approximately 77.5% of university students moved from their initial housing situation to back home or off-campus, with many students kicked out of their dorms outright (Cai et al., 2022, p. 30).

The Fall 2020 academic semester was significantly more contentious compared to the Spring 2020 semester when viewing universities being in-person or virtual. Public school systems in four states – Arkansas, Florida, Iowa, and Texas – had mandates for in-person instruction which were followed by a number of universities in their respective states. The University of California system and Harvard announced that they would be offering the majority of their classes virtually, with a series of universities in Massachusetts and New York describing their approach as "hybrid," but the majority of universities transitioned into a predominately face-to-face model for their students for the Fall 2020 semester (Fordham, 2020) which still offering hybrid or virtual classes for on-campus students. Emergency authorization use by the

² "America First" broadly refers to former President Donald J. Trump's foreign policy agenda and campaign slogan, which emphasized withdrawing from international treaties and focusing investment domestically.

US Food and Drug Administration of the COVID-19 vaccine developed by Pfizer-BioNTech, Moderna, and Johnson & Johnson was provided in December 2020 (FDA, 2020), leading to the vast majority of university campuses being fully reopened for the Spring 2021 semester. This decision was further pushed by then-elect Joe Biden, who pledged that the incoming presidential administration would move the majority of public schools and universities back to face-to-face instruction within the first 100 days of the presidency (Weissert, 2020). Students characterized their education as inadequate during this initial period, noting that “universities have not adapted adequately to virtual teaching or examinations...[and] classes have not maintained the level of face-to-face teaching.” In fact, students felt that their overall academic performance had decreased drastically and that their ability to be hired was impacted by virtual education during the initial pandemic, “[requesting] universities to communicate more and better with students” (Villa, Litago, & Sánchez-Fdez, 2020, p. 80).

With students returning to their university campuses, the politicization of the pandemic impacted the spread of misinformation and COVID-19 awareness. In particular, masks became a symbol of cultural significance in the general United States population. As seen in Figure 1, the CDC utilized posters in order to better communicate information regarding mask wearing which were often seen on college campuses as a free resource for health care professionals. Students were found to use their masks in locations where masks were perceived to be mandated, while the “frequency of mask-wearing was comparatively lower for social gathering and parties” which proceeded to worsen by the end of the semester (Rosenblum et al., 2021, p. 5). The World Health Organization declared the end of the COVID-19 public health emergency in May 2023, leading to a further decrease in masking and vaccination uptake. Awareness of the ongoing spread of COVID-19 has broadly declined through Summer 2024, with the majority of individuals no

longer wearing masks alongside the CDC removing guidelines for isolation and testing (Tin, 2024) including on college campuses.

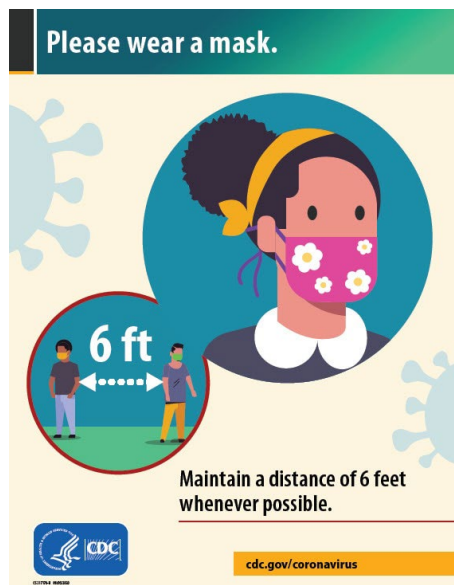


Figure 1: Please Wear A Mask

Note: By Centers for Disease Control, 2020, poster, multicolor PDF, uploaded digitally to the University of North Texas webarchive library.

Ongoing Discussion in Technical Communication related to COVID-19

With the timeline of the spread of the COVID-19 pandemic being compressed into a relatively small period of time of 4 years, from 2020 to 2024, the existing research conducted generally falls into two separate groups: research on the medical information surrounding the virus, and research on the response by populations to information about the virus. Building from the core tenet of technical communication in that an informed audience must distribute information to an uninformed or lesser informed audience, the ability for governments and organizations to communicate information from the former group of research dictates the latter

group. The mass politicalization of the pandemic by different parties worldwide and especially in the United States has led to an outsized amount of the population believing in false information in a similar manner to other epidemics and information campaigns wherein there is a propagated “gap in knowledge and acceptance of the COVID-19 vaccine” despite the impact of the pandemic on the general populace before the vaccine’s distribution (Ledda et al., 2021, p. 8). The ongoing nature of the pandemic also complicates academic research into the field, with traditional scholarship often being at odds with fast turnarounds in the field of academia, a preexisting notion that could possibly impact the overall relevance of such studies for the discipline as a whole (Frith, 2021, p. 3). Several articles in the field of technical communication relating to COVID-19 come from a single issue of the *Journal of Business and Technical Communication* from 2021; relevant articles from other fields typically come from medical research and business communities rather than the humanities, with studies published within the full-time frame of the pandemic’s spread. As a result, it is somewhat safe to assume that additional technical communication articles on COVID-19 are either still in development pending research or have not been published yet.

Technical communication studies on COVID-19 tend to view both the spread and dissemination of information within different environments, with particular focus given to social media. Additionally, the communicators themselves are also important actors who become the subject of research and dialogue. Graham (2021) focuses on the spread of disinformation on Twitter, particularly among groups of users that need what they describe as “literacy support tweetorials” to help combat the spread of misinformation on the platform (p. 8), while other authors frame the spread of COVID-19-related information on social media platforms in the context of other recent epidemics, such as the distribution of racist information for the purpose of

centering the virus around xenophobic notions of Asian ethnicity³ (Bastova, 2021, p. 54-56). Rather than the sources of scientific information, these articles focus on the secondary communication after the publication of these facts, with actors being prominent figures or organizations like Fox News and former governor Andrew Cuomo of New York, and their goal of contextualizing information to an audience in a manner that cuts down on knee-jerk responses that could cause panic or fear (Doan, 2021, p. 74-77).

Government Agencies and Technical Communication

When scientific contributions to the general knowledge of medical information surrounding COVID-19 are discussed within technical communication, the typical actors that are discussed are the National Institute of Health in the United States (NIH), the Center for Disease Control in the United States, the World Health Organization, and a generalized notion of the virus-researching scientist that publishes their information. Amidon et al. (2020) centered on the premise of the “flatten the curve” graph that was predominately used by these organizations during the initial outbreak of the pandemic in 2020. The chart relied heavily on the reader’s ability to understand risk and possessing the ability to visualize it, which was a flawed form of communication given the inability for the average reader to build an understanding of risk abstraction in the sense of their own lives (Lambrecht, 2021, p. 97). Slovic & Peters (2006) characterized human risk perception by the presence of heuristics, where individuals would misunderstand risk based on their own experiences and public perception rather than actual statistics as a result of “imagining the numerator...and neglecting the denominator” (p. 323).

³ Former President Donald J. Trump used the terms “Wuhan virus” and “China flu” to describe COVID-19. In an effort to combat hate crimes and xenophobia related to COVID-19, President Joe Biden passed the “COVID-19 Hate Crimes Act” in May 2021.

This noted lack of understanding was further validated by Abrams & Greenhawt (2020), who claimed that the risk communication was complicated by the spread of scientific information as it was published, often conflicting with earlier reports that made it even more difficult to properly combat misinformation that results solely from not being up to date. Essentially, the target audience of the “flatten the curve” graph was inherently unable to relate their personal experiences to such a data visualization, leading to its communication failure.

For their own part, public health and government organizations have also waded into the realm of technical communication under the basis of crisis communication and helping to improve the dissemination of actual information regarding the COVID-19 pandemic to combat the spread of misinformation and disinformation. These studies tend to target working medical professionals and improving their communication skills, focusing on either medical practitioner to medical practitioner knowledge sharing or medical practitioner to patient information communication. Much of this push came from the need for medical practitioners to utilize the most cutting-edge methods during the initial height of the pandemic prior to the completion of various medical trials in an effort to build health networks relating to COVID-19. Byrnes et al. (2020) discussed various methods of communications that medical scholars could utilize to help transfer information quickly and effectively from an academic perspective into a practical sense, with the emphasis being placed on synchronous video conferencing technologies that could be utilized to best propagate the most up-to-date information. Malecki et al. (2020) also moved to understand the goal of public health projects relating to the pandemic, where various factors were analyzed using technical communication strategies to display why the perception of medical information among the general population shifted so drastically during the pandemic. Combatting misinformation on social media has remained a significant goal of medical

professionals during the pandemic, particularly due to misinformation spreading at a faster rate than scientists and professionals are able to keep up with (Koerber, 2020). Doctors were again the primary audience for this publication, with specific strategies being blueprinted for helping and correcting patients based on their personal misunderstandings of the pandemic and how it has been impacting their lives. Finally, Wittenberg et al. (2021) compiled the existing COVID-19 literature at the time of publication to understand what the intended readers for each article were; their findings concluded that the majority of articles were designed for practitioner-to-patient communication, with the intention of doctors being the primary vectors of communication. In most of these instances, the idea appeared to be that the doctor would remain up to date on COVID-19 information and would be able to communicate it using the various methods discussed in the various articles, seemingly not understanding that the permeating of misinformation was also extended to doctors who may not have continued the relevant reading for the betterment of their practice.

History of Pandemic Education in United States Universities

The Spanish Flu, or the 1918-1920 H1N1 Influenza A, was the United States's first significant pandemic of the 20th century. First discovered and most likely originating in the Midwest in the United States (Fujimura, 2003), the influenza strain spread predominately among college-aged soldiers fighting in World War I. While the infection was initially characterized by outbreaks among Army and Navy bases in the United States, the globalized conflict of the Great War allowed the disease to spread rapidly and become a wartime pandemic, impacting victims in a number of participating countries. This strain of H1N1 influenza "received its misnomer thanks largely to wartime censorship" (Fujimara, 2003), wherein uncensored newspapers in Spain began

reporting cases of the pandemic among its populace without any redactions, with the country not participating directly in World War I and its associated government not believing that the spread of news of a deadly flu strain could impact the morale of its troops. A number of colleges and universities in the United States were forced to react to the increasing death toll among their student population through a series of measures; “several institutions...had the impression of being separated from the urban hubs and promptly shut down their educational establishments,” while more urbanized student campuses instead “chose to delay activities and meetings” or “imposed restrictions on public places” within their university sphere (Zhu, 2023, p. 88). Academic institutions were also a focal point for disease spread as they were “home to students between 18 of 22 as well as hosts for soldiers training for military services on campus during WWI” and thus having more of their population at risk for infection due to travel by their residents (Thomas & Foster, 2020, p. 189).

Medical masks were found to be effective at stopping the spread of the Spanish Flu (Franchini et al., 2020), leading to an increase in communicative measures among the United States populace to wear such medical equipment. As seen in Figure 2, spitting when talking and sneezing were also quickly identified as common agents of influenza spread, which also allowed for the demonizing of the virus in a ploy to better spread the message across the population. Misinformation was also rampant during the spread of the 1918-1920 H1N1 strain, with a number of parties attempting to utilize the pandemic for financial gain; Figure 3 displays a poster that a number of grocery stores and produce sellers utilized to increase sales of onions, a commonly seen and ineffective remedy used to treat the disease. Vaccines were utilized for this pandemic as an additional measure to prevent the spread, but with the fledgling state of virology in the late 1910's the efforts were seen as mostly performative in nature rather than having any

sort of actual effectiveness of treatment or prevention (Scwartz, 2018, p. 1456). Ultimately, colleges and universities responded to the Spanish Flu and its associated misinformation with a system very similar to what was seen with COVID-19, being “early closures during the initial outbreak [and] refusal to close” thereafter (Thomas & Foster, 2020, p. 193).

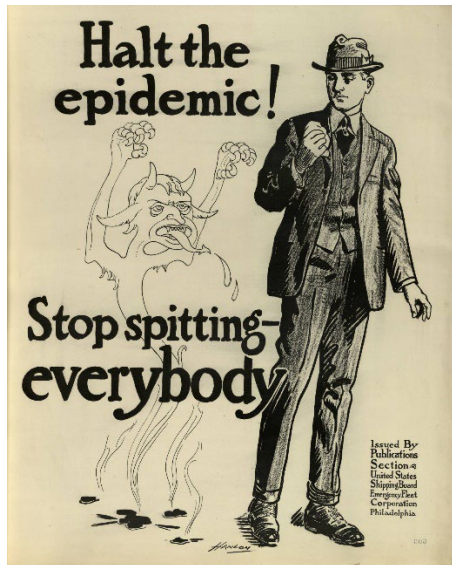


Figure 2: Halt the Epidemic!

Note: By Hanlon, 1918, poster, black and white cartoon on paper, located at the Temple University Libraries Special Collections Research Center.



Figure 3: Eat More ONIONS

Note: By Gardocky, J.W., 1918, poster, black and white text on paper, uploaded digitally to ResearchGate by Sonia Garcia.

Polio, or poliomyelitis, is a strain of enteroviruses that became endemic to the human population globally during the initial spread of agriculture and farming practices. Severe outbreaks of the poliovirus occurred in the United States between 1948-1955 following World War II, primarily impacting children and the elderly (Nathanson & Kew, 2010, p. 1217). After contracting and recovering from polio, victims were typically immune to reinfections but were often left with visible damage that presented itself most often as paralysis in survivors. Polio became a cultural inflection point for many Americans, further spurred on by the 32nd President of the United States, Franklin D. Roosevelt, being paralyzed from the waist down due to an adult

infection of the poliovirus and visibly governing the nation from a wheelchair. The body's immune response to polio, combined with advances in virology and immunology and massive public support for the cause, allowed for the development of a series of polio vaccines beginning in 1955, which was subsequently and successfully distributed to children across the United States, Finland, and Canada (Monto, 1999, p. 7-8). Universities and colleges joined as part of the fundraiser drive, with North Carolina Agricultural and Technical State University increasing their fundraising amount from \$127.23 in 1951 to over \$2,500 in 1954 (Clark, T., 1954). With the vaccine being highly successful, the rapid distribution of the vaccine allowed for the first major vaccination drive in the United States to provide the framework for future vaccine drives, such as with COVID-19.

Another historical example exists in the form of the HIV/AIDS epidemic, a widespread autoimmune illness that colleges and universities have had to fight the spread of with strong health communication within their sexually active communities. Lewis et al. (1997) found there were a number of social and cultural errors that were allowing heterosexual college students to catch HIV/AIDS, often due to "homophobia and misconceptions about AIDS...as primarily associated with homosexual people" (p. 152), an issue that was compounded by other surrounding factors such as an embarrassment to buy condoms and other protective items from college health services. Students were "the target of more and more campus-based and society-wide AIDS information campaigns" during the 1980's and 1990's in an effort to combat misunderstandings about the disease and its spread among sexually active populations (Fischer & Misovich, p. 332-334). However, on average college students were ill-informed about such relationships between disease transmission and sexual activity, believing themselves to be low risk for a variety of reasons including homophobia (Gray & Saracino, 1989, p. 200). As

displayed in Figure 4, medical communication and posters often targeted college-aged students, attempting to frame partying and casual sex as negatives that could impact one's chances to contract the disease. Opt & Loffredo (2004) furthered this understanding of the poor health communication on the disease by viewing different demographics of college students that were catching HIV/AIDS and performed a series of surveys in order to properly gauge and code the actual knowledge of the disease that students had based on what information their college had provided them. At present, an option to prevent HIV/AIDS through pre-exposure prophylaxis (PrEP) exists, with some colleges distributing them to particularly vulnerable populations for daily uptake with the intention of preventing the spread of the autoimmune disease. Students' knowledge was generally improved by specific, extraneous organizational effort to provide information directly on specific diseases outside of the purview of the college health program on PrEP, leading to possible conclusions that this could be an alternative method of communicating such health information to college students by professionals, rather than by the institution itself (Taliaferro et al., 2021).



Figure 4: AIDS IS NO PARTY.

Note: By AIDS Hotline Hawaii, 1990s, poster, black, white, and red text on paper, uploaded digitally to BuzzFeedNews by Patrick Strudwick 1 December 2015.

The 2009 H1N1 virus, also known as the swine flu, was a viral influenza strain that spread rapidly during 2009⁴. While the disease was not as widespread or severe as COVID-19, it was still labeled a pandemic by the World Health Organization and began to impact college students as part of the contagion. Van et al. (2010) investigated a link between media coverage and university student anxiety regarding the pandemic, finding that despite such concerns a “high proportion of students would still attend university with symptoms [of swine flu]” (p. 6). Further research on pandemic anxiety found that risk perception was associated with education and socio-economic conditions, with “professors and people using their own cars” having significantly higher anxiety about the pandemic and exerting more control over their hygiene

⁴ H1N1 is known as “swine flu” due to its nature as a swine-borne illness that made the jump to humans. The disease was first identified in pigs in 1919 during the Spanish Flu pandemic, but only manifested in humans as a disease in 2009.

than “individuals that used public transport” (Evirgen et al., 2014, p. 568). The swine flu was not seen as a serious threat to most healthy adults, a sentiment shared by a large number of college students who felt that by “only practicing preventative hygiene measures [they could] disregard the vaccine as a primary preventative measure” (Serino et al., 2011, p. 146). Ultimately, students felt that a disease posed in the media as a “minor” illness without drastic spread was not a threat to themselves or their community.

Existing Medical Communication at Universities

Universities need to communicate with their students on a variety of health-related topics in order to maintain a healthy atmosphere, and as a result several illnesses and diseases have been studied within that context. With the proximity of individuals within dorms, apartments, and other college-style living situations, universities end up becoming hotbeds for numerous afflictions. The seasonal cold and flu viruses that spread each year are one such cluster of diseases that have been studied on college campuses, with researchers typically focusing on the spread of such illnesses and how different methods of hygiene care and communication help to stop their spread. White et al. (2005) conducted a series of longitudinal health surveys with students at the University of Colorado, Boulder to investigate the effectiveness of messaging methods of hygiene methods on seasonal flu and cold spread within communities. Students were polled on their previous usage of hand sanitizer and vaccinations (p. 176), provided novel health materials each week over a period of two months, and surveyed a final time to identify any lasting changes that were made in the target population with upper respiratory viruses compared to the general population at the university (p. 180). The researchers ultimately found that such targeted public health messaging does impact a student’s overall wellness. In parallel to

communication-based research, studies are also performed to investigate the overall flu and cold rates at different periods of the year, often with vaccinations forming the backbone of hypotheses as to their spread. Nichol et al. (2010) conducted a study at St. Olaf College to understand when respiratory illness spikes were occurring and how closely they corresponded with breaks, ultimately finding that the close quarters, communal environments these students live in – cafeterias, dorms, classrooms, gyms, libraries – lead to higher-than-average spreads in diseases, meaning that the effects of vaccinations are even more pronounced.

In addition to communication on seasonal illnesses, other diseases that appear in clusters must be contended with by college health facilities in order to prevent rapid and uncontrollable spread through the often sexually active community, leading to a wholly different set of communication research methods being utilized to understand their effectiveness. The human papillomavirus (HPV) is a sexually transmitted infection common in college-aged individuals that has both a vaccine and a cure, but only has an up-to-date vaccinated population in the United States of 58.6% (Pingali et al., 2020). Hopfer (2011) conducted a longitudinal study utilizing what was described as the “culture-centric narrative of intervention” for female students at Penn State University, employing a number of different narrative analysis techniques through survey to understand what separated vaccinated individuals from non-vaccinated individuals. Questions from the survey were clustered into four covariates – knowledge, sexual activity, mother-daughter communication, and age – to analyze the responses provided and understand better what tools were most effective. Ratanasiripong (2012) utilized a similar approach, using knowledge of HPV as foundational structure on which colleges have previously communicated risk to success with lower infection rates due to higher vaccinations, which was a category that could even be extrapolated to predict which women were vaccinated from the disease without

other information (p. 468). This strategy of vaccine communication followed the blueprint for a crisis-communication script portrayed by St. Amant (2021), where potential targets of a campaign needed to be displayed in a linear story format to prevent panic and other problems from occurring by standardizing the communication (p. 128-129.).

CHAPTER THREE: SURVEY METHODOLOGY

Introduction

The purpose of this study is to examine the recollections of colleges students on COVID-19 within selected Florida universities, and to further analyze their feelings and feedback on how their respective universities were able to communicate medical and safety information to them. This dissertation utilizes a mixed methods approach to data collection that includes a preliminary survey and follow-up interview. This chapter describes the methodology and survey design employed to investigate the effects of the pandemic on college students through the distribution of surveys by voluntary university departments. The overview of the pandemic and disease communication in universities, both historical and current, from Chapter 2 helps to dictate and describe the overall design of this survey, allowing for better question design and a more focused approach towards what topics and communication strategies students are likely to have opinions and feedback.

The utilization of surveys as the preliminary data collection method offers a systematic approach to capturing a wide range of perspectives and experiences across university demographic groups. By reaching out to university departments to distribute the survey to their student bodies, this research endeavors to reach a representative sample of college students on their overall experiences with COVID-19 communication within their university sphere. The subsequent incorporation of interviews into data collection serves to compliment the survey findings, offering a more nuanced insight into the lived experiences of university students during the pandemic and how they navigated the barrage of information, factual or otherwise that they were exposed to. Interview creation, deployment, and preliminary qualitative data analysis are covered in Chapter Four.

Research Design

Explanation of Survey Method

This dissertation relies on mixed-methods research in order to fully understand students' categorial beliefs and opinions on the COVID-19 pandemic and how universities communicated to them on that topic. I selected a mixed-methods approach to data collection and analysis in order to accommodate the various aspects of the pandemic that students would find important in their discussion and feedback on the topic of university materials and communication, with the intention of "[addressing] the study research questions" directly in order to build a more intuitive understanding of the topic and as a result, a "more complete understanding" of the 'what' and 'why' of respondents' approaches to their own pandemic education (Ivankova & Creswell, 2009, p. 145). The triangulation of qualitative and quantitative data is further explored in Chapter Four.

Surveys, and by extension the questionnaires that comprise the majority of the data collection through this method, serve as one of the strongest ways for a "conversation between researchers and respondents" (Krosnick & Presser, 2010, p. 263) to be designed in a manner that can be distributed to a large and unknown population. My academic background in rhetoric and technical communication provided a basis for question design and development as well as creating such a scenario where qualitative information could be interpreted through quantitative analysis methods. The adoption of this mixed-methods approach to data collection and analysis represents the inclusion of a comprehensive lens through which to explore the multifaceted impact of the COVID-19 pandemic on respondents. By integrating both the quantitative survey and qualitative interviews, this methodology allows for a more nuanced understanding of the challenges faced and perspectives of college students during the pandemic. Furthermore, the incorporation of a mixed-methods approach allows for methodological pluralism through data

results (May, Hunter, & Jason, 2016, p. 100-101), wherein the variety of information sources can be better analyzed through rhetorical means.

Designing the survey was a multistep process that involved research into different aspects of both existing literature and communication that universities often used to spread information to their students. During the initial creation of the survey, I believed that questions could be designed in a manner where respondent answers would reveal the primary source of news they utilized to acquire such information. Mukherjee & Weikum (2015) attributed credibility rankings to different news sources and communities by cross-referencing sources utilizing an algorithm that measured the distribution of specific keywords referencing news topics (p. 2-3). Bountoureidis et al. (2018) expanded upon this notion for more qualitative research by reducing the variables of news source cross-referencing to a series of information points of interest (POIs) (p. 3), which I believed could be utilized with specific instances of misinformation propagated through pandemic news coverage to generate misinformation POIs that could be traced through positive or negative survey responses that inquired as to this subject. For instance, one medicine that rose to prominence as an unfounded preventer and treatment for COVID-19 was the anti-parasite tablet ivermectin; the drug was popularized at the beginning of the pandemic as having potential during research testing which was later disproven. However, members of online communities such as Facebook, Reddit, and 4chan continued to spread disinformation regarding the drug's effectiveness at treating symptoms of COVID-19, which mostly permeated into anti-vaccination conspiracy theorists and far-right news media in the United States. Using this popularized information, I believed it would be possible to incorporate key questions involving ivermectin into the questionnaire in order to reveal respondents' sources of misinformation. Essentially, a respondent that answered in the affirmative as to the effectiveness of ivermectin

could potentially be categorized into the group of misinformation POIs from the aforementioned sources under the assumption that only primary news sources would bear results. This notion was dispelled after initial testing with colleagues, wherein an enormous number of sources for each targeted question were able to be discovered and it became effectively impossible to properly trace where misinformation came from initially. As a result, the scope of the survey and subsequent interview was limited specifically to information that students recalled their universities sharing with them, with the understanding that students were almost assuredly gathering information from other external sources as well that may influence their retroactive perspective on the topic. The questions initially designed to be utilized as marker questions that would reveal student preferences towards misinformation POIs were reworked and implemented into a different section of the survey, the Likert Scale questionnaire.

When designing the survey, I divided the questionnaire into three different sections of questions: demographic, targeted knowledge, and Likert scale. Demographic information was categorized as broad answers that students may prefer to self-describe, such as ethnicity and gender, as well as answers with a limited number of answers such as academic year in college. Questions that aimed to understand students' targeted knowledge were primarily built around COVID-19 topics that I as the researcher knew the answers to; this included information on university availability of COVID-testing and vaccinations, as well as what comprehensive information was distributed by universities to their populations over social media and on official websites. Finally, a number of questions were sorted into a Likert scale section wherein students would be able to communicate their perceptions on a number of qualitative topics on a numbered scale that could broadly categorize their opinions from "strongly disagree" to "strongly agree" when provided a statement. This section is where many of the questions initially intended to be

used to predict where students got their information from ultimately ended up, including statements about political division and the overall blame of the pandemic. Questions within the Likert Scale section were internally labeled for future use in data analysis with a set of keywords: university-centered, which involved the university's actions in some manner; COVID, which directly referenced the pandemic; community, which asked respondents to reflect on what their peers may have said or done; contextual, which are statements that could apply to multiple situations even beyond the pandemic; political, which directly referenced the ongoing political division in the United States; and conspiracy, which involved topics like masking and where the pandemic started that often devolve into discussions about conspiracies. These results would be used to help develop the associated interview questions, as the semi-structured interview discussed in Chapter Four was able to accommodate some flexibility based on these answers.

I intended to keep the time necessary for a student to completely answer the questions to ten minutes or less with a limited number of questions due to this restriction, which would qualify the survey as “short” under the survey paradigm introduced by Kost & da Rosa (2018) that resulted in a higher overall completion rate than surveys of longer lengths (p. 33). This restriction caused the compression of some topics into singular questions, and also involved the Likert scale becoming a more significant element of the final survey design. Pre-testing was done with colleagues and peers of various reading levels and speeds in order to gauge the average response rate, which fell within the ten-minute threshold that I imposed. This testing also helped to simplify some questions that these initial respondents lingered on, or even indicated outright were not understandable.

Development of Survey Platform and IRB Approval

Selecting the survey platform itself was a fairly straightforward process, with only three potential candidates for the final research being plausible with my intentions for security and ease of distribution: SurveyMonkey, Google Forms, and Qualtrics. SurveyMonkey is touted as one of the most popular survey tools on the Internet, and would be the most recognizable to university students, which may have decreased their hesitancy to engage with this dissertation research. However, SurveyMonkey lacked a number of security features that I believed were necessary for IRB approval. Google Forms, while having the best and most comprehensive graph creation software built-in to the tool, also lacked some security features that may have impacted the dissertation's approval. Qualtrics stood out as the best option of the three for the inherent security features included with the tool being administered directly by the University of Central Florida. Qualtrics also included multi-stage survey procedures that allowed students to opt-out of certain elements alongside better logic for presenting questions that required specific answers to other questions and the formation of the Likert scale section.

This dissertation was submitted for internal Institutional Review Board (IRB) approval 24 September 2023. Initial internal revisions were made and resubmitted on 25 September 2023, after which the review was assigned to a coordinator. Clarification was requested and forms were subsequently resubmitted 5 October 2023, and again on 11 October 2023. The dissertation's research review was completed and accepted 12 October 2023 and was found to be exempt from regulation. This exemption form is available in Appendix A. Following the acceptance of the study, the Human Research Protection Program (HRPP) was completed 15 October 2023. A modification was made to one of the dissertation documents, the recruitment email sent to university departments, which was processed and accepted 29 November 2023.

Participant Recruitment

Selection Criteria for Universities

Initial selection criteria for universities that would be contacted regarded the distribution of surveys was built around the premise that students in different regions of the country would have different viewpoints and opinions on COVID-19 based on their local and state governments. With this category in mind, the states of Florida, Texas, and California were selected initially with the goal of identifying and contacting a university categorized as “urban” and a university categorized as “rural” from each of the aforementioned states. However, this approach was quickly noted to be far too broad in nature and would require the COVID-19 communication from each state to be detailed as a potential factor in the students’ comprehension of pandemic knowledge.

Following this categorical shift, the scope of the survey distributed was instead limited to the state of Florida. A number of universities were considered for a variety of factors based on their pandemic responses. Only four were ultimately chosen to be contacted: University of Central Florida, University of Florida, University of South Florida, and Florida A&M University. The University of Central Florida was selected due to the internal nature of distributing emails as a graduate student at the university, with the added significance that the university took what can be categorized as a “middle-ground” approach to pandemic education and masking compared to other Floridian universities. The University of Florida was selected due to the involvement of the state’s Republican governor Ron DeSantis in the university’s pandemic approach, with university researchers “allegedly [pressured] to delete COVID-19 data while working on a study” and refusing to testify against DeSantis in a lawsuit detailing the state’s mask mandate ban (Rai, 2021) and the university’s decision to partner with the governor to investigate “a COVID-19

vaccine related death” for a grand jury investigation (Goings, 2022). The University of South Florida was selected due to the involvement of the university’s deans of the College of Medicine and College of Public Health engaging directly in local and state pandemic responses (USF Newsroom, 2021). Florida A&M University was selected due to the university’s status as a historically black college or university (HBCU) and on-campus deployment of vaccines to its students and local community due to acknowledgement of “growing vaccine hesitancy and skepticism among African Americans and other communities of color” (Gaffney, 2021).

Email distribution was selected for the recruitment methodology due to the ease of access for students provided they had access to the link. Utilizing the .edu university email system also allowed for greater control over the results of the survey, and helped ensure that no respondents were attempting to troll or ruin the data set with outlandish answers.

Recruitment via Email Distribution

As part of the IRB-approval for this dissertation research, an email was included for distribution to university departments for further distribution to their respective students, which is visible in Appendix B: Department Email 1. Initially, a few departments with related subject matter to this dissertation were selected for email deployment: writing, rhetoric, English, and health and medicine colleges were initially contacted. After a lower-than-expected response rate on the surveys was received, a revision of the email with stronger wording was submitted to the IRB for approval and was subsequently distributed again to an expanded number of departments in an effort to include a broader population that might respond to the survey request.

Students were not contacted directly during this portion of the data collection process. Instead, student respondents were those that received emails from their professors or

departments, depending on distribution methods used by the email recipients. Completion incentives of any kind were not offered to students who responded due to complexities with funding and Florida state gambling laws requiring rewards for all respondents. The email provided to departments to distribute included the Explanation of Research form required by the IRB as seen in Appendix C.

Data Collection

Timeline of Data Collection

During the initial creation of this dissertation research process, a projected month was necessary for the survey link to stay active for students to access to answer. With this timeline in mind, the survey was made available 18 October 2023 and the initial group of 16 emails to the aforementioned four universities were distributed 19 and 20 October 2023. Following lower-than-expected response rates from students, the length of time the survey was made available was extended. An additional 12 emails were distributed 13 November 2023, after which a revision was made and accepted to the initial distribution email to include stronger language. An additional and final group of 57 emails were distributed 3 through 5 December 2023 to different departments than the initial distributions, after which the survey was made available for an additional month before being closed.

Data Privacy

Any identifying information has been excluded from both the survey and interview portions of this dissertation research. Compliant with IRB guidelines, survey data including emails has been kept digitized and stored securely on the University of Central Florida's

OneDrive cloud storage system. After five years, all data related to this dissertation stored on Qualtrics and OneDrive will be destroyed. Student responses have also been anonymized in order to not connect specific emails or demographics to specific answer selections in the questionnaire.

Survey and Preliminary Data

Survey Sections and Questions

As mentioned in the Explanation of Survey Method section, survey questions were separated into three different categories during the design phase. However, respondents were shown a different guided format that allowed for easier completion of the survey portion of the research. Respondents were first presented with the Explanation of Research document seen in Appendix C and were required to affirm that they have read the associated form and agree to participate. Respondents who selected “No” were unable to proceed with survey questions and were informed that the survey was completed.

Respondents that answered affirmatively to the previous question were brought to the first questionnaire selection labeled as “Participation Questions” (Figure 4). Both of these questions were required to progress further into the survey portion and confirmed consent to utilize their data and provided email in the final research of this dissertation.

Table 1: Participation Questions

Question	Possible Answers
University (.edu) email:	[Single line text entry]
By providing my university (.edu) email, I agree to have my survey answers used in a research study. I also agree to potentially receive a follow-up request for an interview by Zoom. You are not required to participate in the interview portion to complete the survey portion of this study.	[Yes] or [No (Ends Survey)]

Students were then provided with a set of questions labeled “Basic Questions” (Figure 5) pertaining to their current status as a student of the specific university they attend.

Table 2: Basic Questions

Question	Possible Answers
Which university do you currently attend?	[University of Central Florida] or [University of Florida] or [University of South Florida] or [Florida A&M] or
What year are you in your current program?	[1 st] or [2 nd] or [3 rd] or [4 th] or [5 th +] or [Graduate Student] or
Please describe your current major or program of study.	[Single line text entry]

Respondents were then brought to the fourth and largest section of the survey, which was labeled “COVID Questions” (Figure 6). These questions focused on acquiring information about the students’ presence at their university during specific elements of the COVID-19 pandemic, as well as gathering initial information about their recollections for use alongside the following interview portion. As discussed previously in the Explanation of Survey Method section, these questions included those that I already knew the answer to and were designed to see if students’ recollections on a survey matched the actual communication that universities distributed.

Table 3: COVID Questions

Question	Possible Answers
To the best of your recollection, please select all of the following COVID-19 precautionary measures that you believe your university communicated to you about.	[Masks] and/or [Vaccines] and/or [Testing] and/or [Social Distancing] and/or [Hand Washing/Sanitizer] and/or [Ventilation] and/or [None] exclusive or [Other: Single line text entry.] and/or
Did your university transfer most non-lab classes online during any academic semester between Spring 2020 and Spring 2022?	[Yes] or [No] or [I did not attend my university during any of these semesters.] or
[Shown if Yes to previous question] To the best of your collection, please select the semesters that your university transferred most non-lab classes online.	[Spring 2020] and/or [Summer 2020] and/or [Fall 2020] and/or [Spring 2021] and/or [Summer 2021] and/or [Fall 2021] and/or [Spring 2022] and/or
To the best of your recollection, did your university implement a mandatory mask	[Yes] or [No] or

Question	Possible Answers
mandate during any academic semester between Spring 2020 and Spring 2022?	[I did not attend my university during any of these semesters.] or
[Shown if Yes to previous question] Please select the semesters that your university implemented a mask mandate.	[Spring 2020] and/or [Summer 2020] and/or [Fall 2020] and/or [Spring 2021] and/or [Summer 2021] and/or [Fall 2021] and/or [Spring 2022] and/or
Has your university had free COVID-19 tests available to students at any point?	[Yes] or [No] or [I do not know] or
[Shown if Yes to previous question] What type of COVID-19 tests were offered?	[Rapid Test] or [PCR/Long Test] or [I do not know] or
Has your university had free COVID-19 vaccinations available for students at any point?	[Yes] or [No] or [I do not know] or
[Shown if Yes to previous question] Did someone you know get vaccinated on campus?	[Yes] or [No] or [I do not know] or

Question	Possible Answers
Where have you seen COVID-19 information distributed by your university?	[Write-in: Single line text entry.]
Which of these best describes your college experience?	[I started college before COVID-19.] or [I started college after COVID-19.] or
Has someone you know caught COVID-19 while on campus?	[Yes] or [No] or [I do not know] or
Does your university have a mandatory COVID-19 vaccination?	[Yes] or [No] or [I do not know] or
Does your university have mandatory vaccinations for diseases OTHER than COVID-19?	[Yes] or [No] or [I do not know]

Next, respondents were shown a section with the only two optional questions on the survey labeled “Demographic Information” (Figure 7). These questions were designed for self-description in mind due to the nature of the data and allowed students to also opt-out of including their demographic information for this research. I believed that the demographic information provided by respondents is sufficient to draw preliminary conclusions based on follow-up analysis of the literature review and interviews.

Table 4: Demographic Information

Question	Possible Answers
OPTIONAL: Please describe your gender identity.	[Write-in: Single line text entry.]
OPTIONAL: Please describe your race and ethnicity.	[Write-in: Single line text entry.]

Finally, students were presented with the Likert Scale questions, which were compressed to fit within a single section. The Likert Scale questions were designed with brevity in mind, allowing students to rapidly select their option from a previously established scale that was utilized for all questions. The questions were also designed to be simple and straightforward in their message, while still allowing for some flexibility in what the respondent thought they were being asked; Joshi et al. (2015) characterize this use of the Likert Scale as “driven by the applicability of the topic concerned; in context of respondents’ understanding and judged by creator of the response item” (p. 399). This decision would allow for better analysis of specific questions within this category that had a much wider range of responses than ones that were much more uniform in their responses. For the purposes of Figure 8, each question has the same answers possible by respondents: Strongly Disagree, Somewhat Disagree, No opinion, Somewhat Agree, and Strongly Agree. Instead, I will display my internal labeling of these questions into categories that are used in the categorical analysis and comparisons of such data in Chapter 5.

Table 5: Likert Scale Questions, with Categorizations indicating Question Intent

Question	Categorization
My university communicated well about COVID-19.	University-centered; COVID
My campus is safe from diseases.	University-centered; COVID; Community
My university was too overbearing in their COVID-19 approach.	University-centered; COVID
My physical and digital classes are comparable in quality.	University-centered; Contextual
My university was well-equipped to handle COVID-19.	University-centered; COVID
My professors talked too much about COVID-19.	University-centered; COVID
I feel knowledgeable about what is or isn't real about COVID-19.	COVID; Contextual
I took more precautions than my peers on campus to prevent COVID-19 spread.	University-centered; COVID; Community
COVID-19 was overblown.	COVID; Contextual
The pandemic was created in a laboratory.	COVID; Conspiracy
I feel safer on campus because of vaccinations.	University-centered; COVID; Community; Contextual
My campus makes me feel welcome to share my opinions on COVID-19.	University-centered; COVID; Community

Question	Categorization
I need more than a cloth or surgical mask to feel safe.	COVID; Conspiracy; Contextual
The federal government and my university disagreed on COVID-19.	COVID; Political; Community
The Florida government and my university disagreed on COVID-19.	COVID; Political; Community
Donald Trump handled COVID-19 better than Joe Biden.	COVID; Political
My university still talks a lot about COVID-19.	University-centered; COVID
The pandemic will never end.	COVID; Conspiracy
I have confidence in my university's health system.	University-centered; Contextual

After completing the survey, respondents would receive confirmation that their response was recorded and that they could exit Qualtrics.

Preliminary Data

I did not receive any response from Florida A&M university to the recruitment emails distributed to university departments. One department from the University of Central Florida and one department from the University of Florida of the initial recruitment email expressed that it was their college policy not to forward any such emails to their student body. One instructor that was forwarded the recruitment email from their department during the first distribution of the

survey from the University of Central Florida expressed confusion as to the point of the study, and whether or not it was IRB-approved. Another instructor from the University of South Florida who was forwarded the recruitment email during the second phase expressed confusion as to whether graduate students were viable respondents for this research and asked for permission to share the link with them. One department and one instructor from the University of Florida, one instructor from the University of South Florida, and one department from the University of Central Florida indicated affirmatively that they would distribute the survey among their classes.

A total of 49 responses were recorded for the survey portion of this dissertation. Of those responses, only 39 respondents continued to answer questions beyond the first section, stopping at the University (.edu) email question and exiting the test. Two respondents further declined to be contacted by email following the completion of the survey portion of the research. An additional five respondents stopped answering questions following the Basic Questions section, even though they submitted their email, major, and university. One respondent on the first section was turned away due to failing the Recaptcha Score security test provided by Qualtrics, and four others were marked as meeting a lower-than-average Recaptcha Score threshold.

Preliminary Results

The majority of survey respondents (21) attended the University of Florida at the time of answering the survey, more than the combined total of respondents from the University of South Florida (10) and the University of Central Florida (8) combined (Figure 5). Comparing these statistics to the low response rates from emailed departments, one conclusion that can be drawn is that more departments from the University of Florida shared the study with their students.

The same number of students felt comfortable sharing their gender identity as did sharing their race and ethnicity. However, the bias of this survey’s distribution to graduate programs reflects a much higher percentage of white individuals in graduate school than the national average (Assefa, Williams, & Stamm, 2023).

Table 6: Results for “OPTIONAL: Please describe your gender identity.” (n=30)

Self-Described Demographic Information	Number of Respondents
Male	11
Female	17
Non-Binary	1
Genderqueer/Girlflux	1

Table 7: Results for “OPTIONAL: Please describe your race and ethnicity.” (n=30)

Self-Described Race and Ethnicity	Number of Respondents
White	21
Black	1
Asian	1
White & Hispanic	3
White & Latino	2
White non-Hispanic	1
Caucasian/East Asian	1

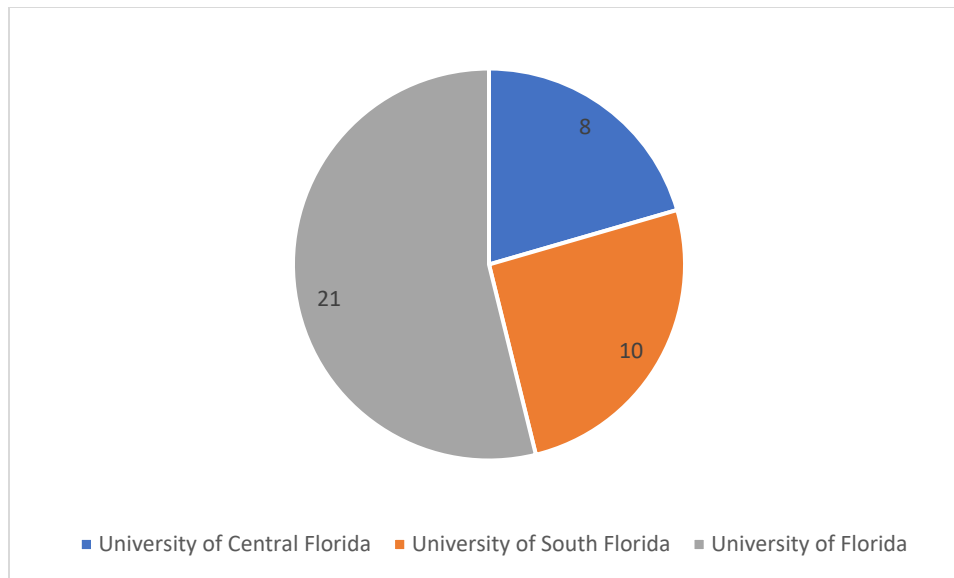


Figure 5: Responses to “Which university did you attend?” (n=39)

The distribution for the question “What year are you in your current program?” appears to be mostly weighted towards graduate departments at the selected universities (Figure 6). However, of the undergraduate students that responded, the majority of them attended college during the first or second year of the pandemic.

When asked the question of “Please describe your current major or program of study”, the distribution of majors can be utilized to draw conclusions as to either which departments shared this survey with their students, or departments had students that were more likely to answer the survey when it was shared with them (Table 6). The results are mostly centered in humanities programs such as English and Communication as well as Statistics majors (Table 6). Additionally, the number of respondents from my own graduate department, Texts & Technology, made up seven of the total eight respondents from the University of Central Florida (Figure 5).

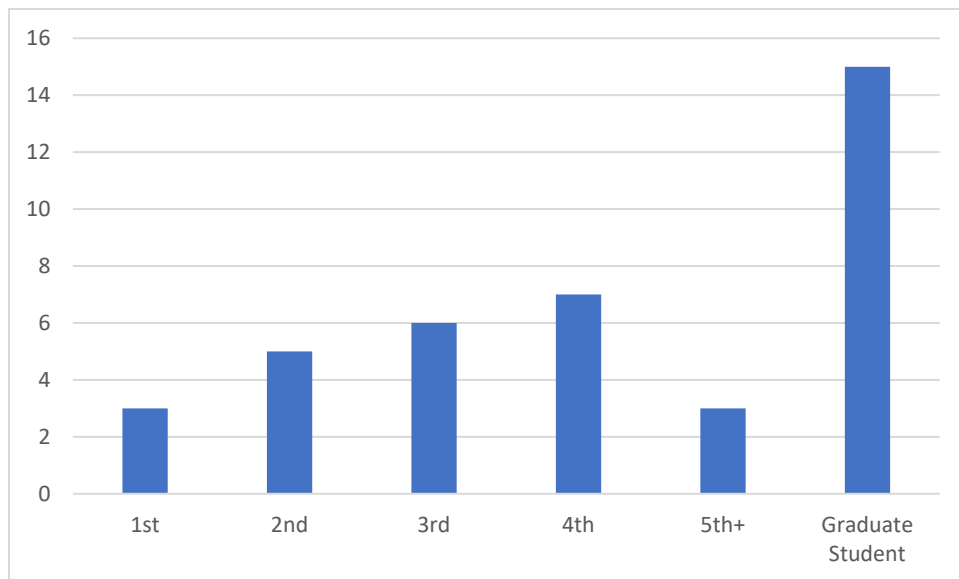


Figure 6: Responses to “What year are you in your current program?” (n=39)

Table 8: Responses to “Please describe your current major or program of study.” (n=36)

Major	Number of Respondents
Anthropology	3
Anthropology & Education	1
Data Science & Pre-Law	1
Statistics	5
Statistics & Russian	1
Statistics & Mathematics	1
Statistics & Economics	1
Texts & Technology PhD	7
Communication	6
English	5
Communication Master’s	3
English & Pre-Law	1
English & Advertising	1

Write-in responses for Figure 7 included two instances of respondents indicating that they were solely work-from-home students, and the third write-in response said that they would just be guessing if they answered the question as they were a first-year student.

When asked the question “To the best of your recollection, please select all of the following COVID-19 precautionary measures that you believed your university communicated to you about,” with the exception of ventilation, the most commonly described measures to prevent pandemic spread all appeared to have information uptake comparable with one another.

Combining the three write-in results with the respondent who answered “None” for a total of four, the number of students who did not notice university communication on the pandemic is mirrored later in Table 7.

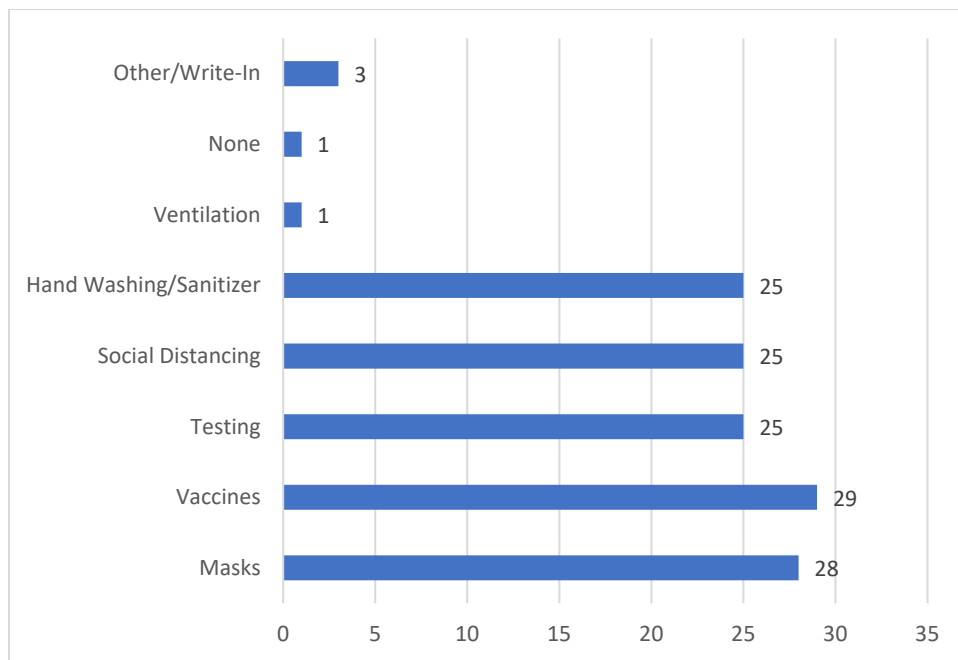


Figure 7: Results of “To the best of your recollection, please select all of the following COVID-19 precautionary measures that you believed your university communicated to you about.” (n=34)

When asked the question “Did your university transfer most non-lab classes online during any academic semester between Spring 2020 and Spring 2022?”, four students indicated that they did not believe most of their classes were moved online from face-to-face during this time period (Figure 8). Based on university messaging and the response by the Florida state government on the topic, these students would have solely attended their respective university at the earliest in Fall 2021 (Arradondo, 2021).

The distribution of respondents in Figure 9 that saw their classes moved online matches the expectations set by university communications on their websites. All three universities announced publicly that they would be returning to, at the very least, hybrid classes in the Fall of 2021, which may have led students to the perception that classes stopped being transferred mostly online by then (Arradondo, 2021; Turner, 2021; Matat, 2021). The University of Central Florida announced that they would be returning to “normal operations” by the Summer B session of 2021, with the limited rollout being extended to a full reopening in the Fall of 2021 as mentioned (Cartwright & Johnson, 2021). The University of Florida generally returned to face-to-face in the Fall 2021 semester but attempted to do so previously in the Spring 2021 semester to pushback from students (Kumar, 2021). The University of South Florida announced a strategy to slowly increase the provided in-person courseload over the Summer 2021 semesters, with their full reopening taking place that Fall 2021 (USF, 2021). Additionally, the data from Figure 6 supplements the distribution of responses where there would be a higher number expected for Spring and Summer of 2020 than the Fall of that year and the Spring semester of 2021.

Figure 10 confirms the expectations based on the responses from Figures 8 and 9 and how students understood their standing within the overall lived experience of the pandemic.

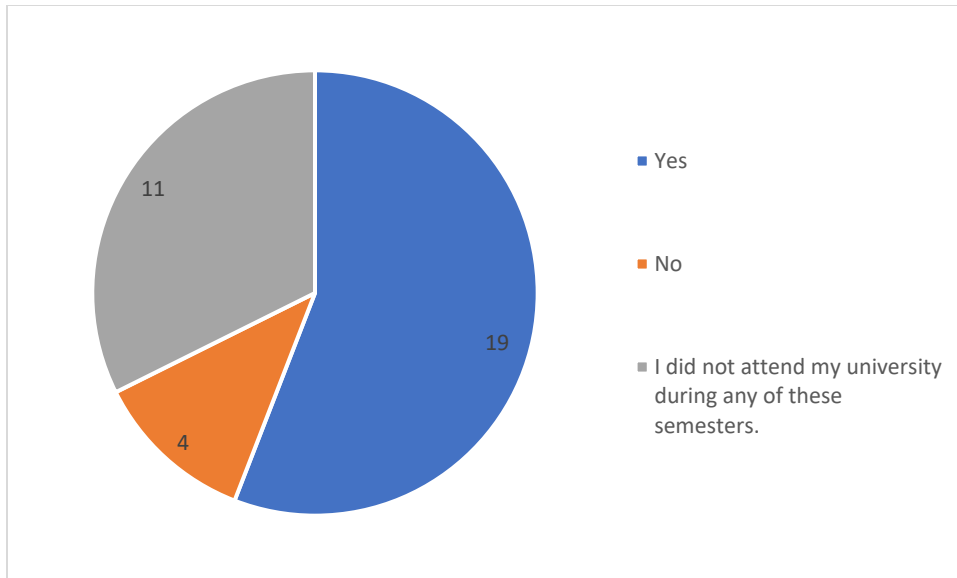


Figure 8: Results of “Did your university transfer most non-lab classes online during any academic semester between Spring 2020 and Spring 2022?” (n=34)

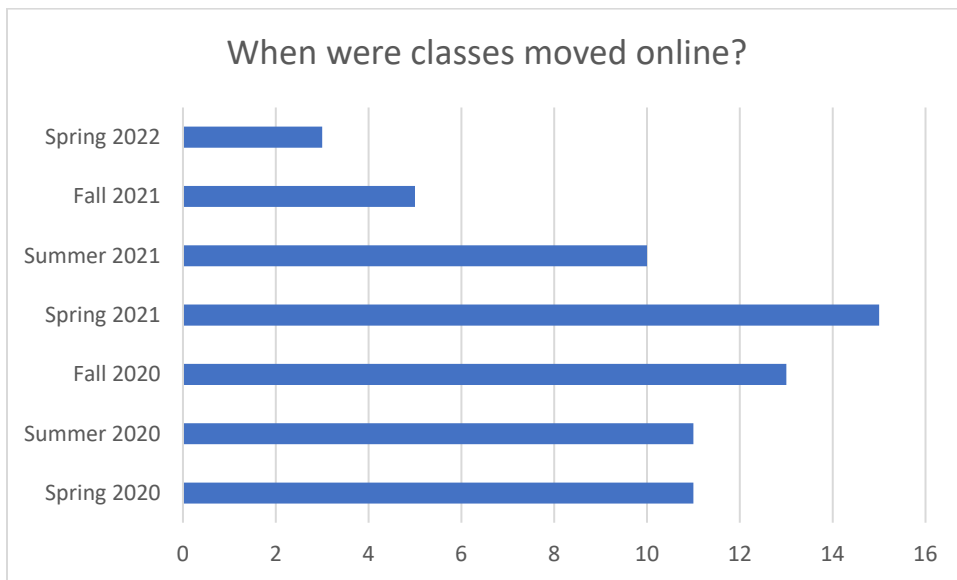


Figure 9: Results of “To the best of your recollection, please select the semesters that your university transferred most non-lab classes online.” (n=19)

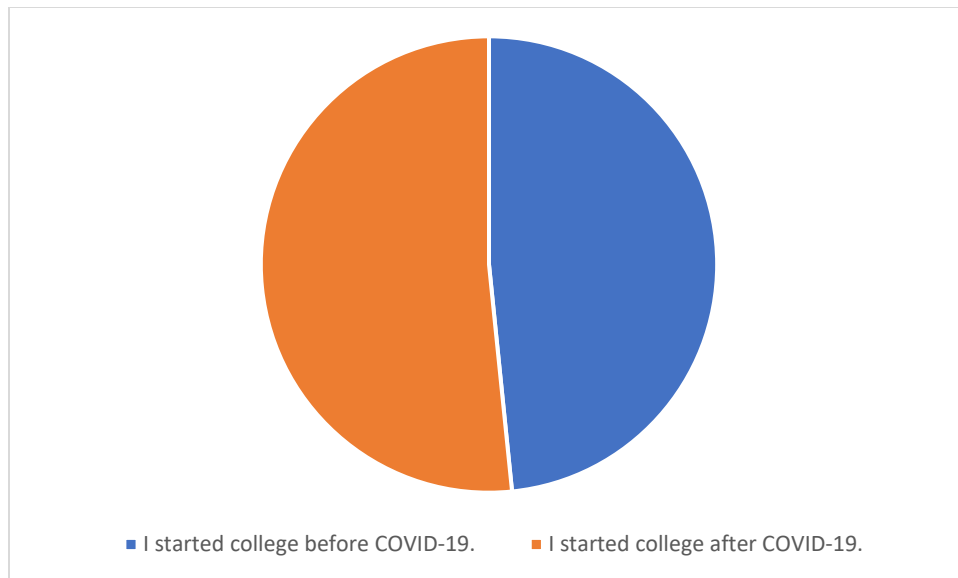


Figure 10: Results of “Which of these best describes your college experience?” (n=31)

In Figure 11, respondents were asked “Did your university have a mandatory mask mandate?” In line with the previous numbers in Figure 6 detailing when participants actually attended college, the most notable statistic is that nine respondents believed their university had a mask mandate at some point. Florida’s government outright banned mask mandates being applicable across the state in 2021 (Pickett, 2021), while university officials and leadership never imposed official mask mandates on their students and instead followed U.S. government guidance until the Fall 2021 semester, where they commented that their “hands were tied” as to the rights of their students to not wear masks if they so choose (Dailey, 2021). The U.S. government under Donald Trump recommended masking but not a mask mandate (Liptak, Brown, & Westwood, 2020), while the Biden administration only enforced mask mandates on public transport and some federally owned buildings and land (Davis, 2021).

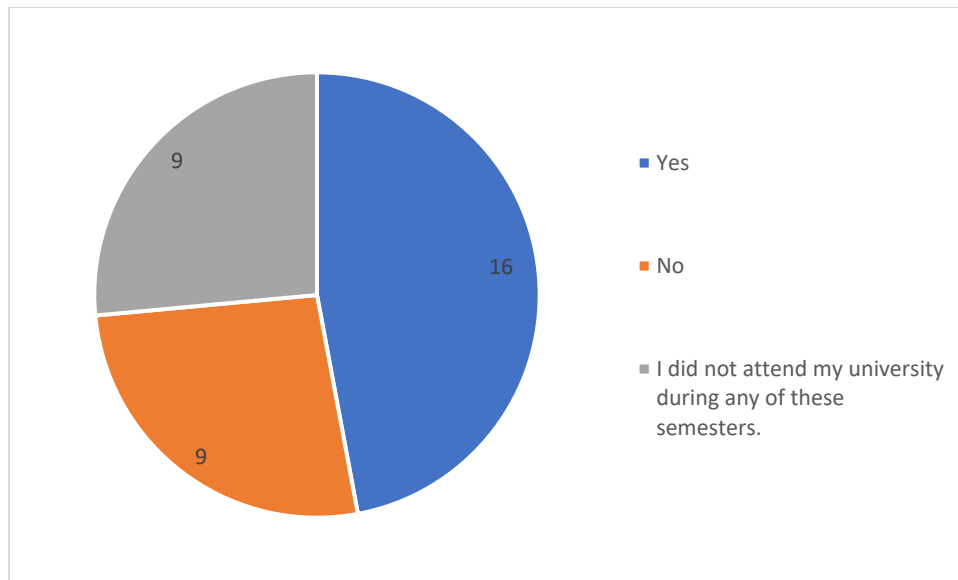


Figure 11: Results of “To the best of your recollection, did your university implement a mandatory mask mandate during any academic semester between Spring 2020 and Spring 2022?” (n=34)

The distribution of responses from those who were affirmative on university-imposed masked mandates (Figure 12) follows the general trend of when the United States government was communicating federal guidelines about masking. To this extent, after much publicity from Governor Ron DeSantis from the beginning of the pandemic, the state government suspended any sort of enforcement power that local businesses or universities would be able to exert in the event leadership found it reasonable to implement a mandatory mask mandate (Hubbard, 2022).

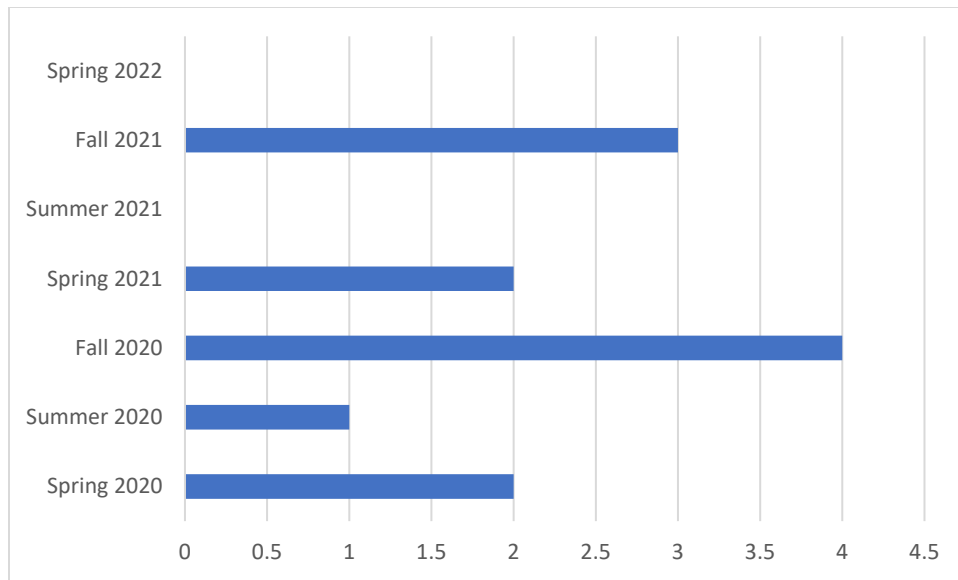


Figure 12: Result of “Please select the semesters that your university implemented a mask mandate.” (n=12)

When asked the question “Has your university had free COVID-19 tests available to students any point?”, all three universities with respondents reported having free COVID-19 testing on campus through Spring 2021. Half of the 32 respondents responded “Yes,” while the other half responded, “I do not know.” While free testing was initially available on all three college campuses, the practice was broadly suspended on university campuses following the distribution of the COVID-19 vaccine to the general population. The more important statistic to note is the number of respondents who had no recollection of this offering, which could either be explained by not attending the university at the time of its presence or simply not acknowledging that there were such resources. The follow up question asked to the 16 “Yes” respondents, “What type of COVID-19 tests were offered?” prompted four respondents to say rapid tests, four respondents to answer PCR/long tests, and the other 8 to respond, “I do not know.”

Both the University of Central Florida and University of South Florida offered COVID-19 vaccinations following the initial distribution to general populations. The University of Central Florida ceased this offering in the Spring of 2022, while the University of South Florida still continues offering the vaccine on-campus. While the University of Florida did not offer on-campus vaccines, they cooperated with local pharmacies and supermarkets to distribute the vaccines to students. When asked “Has your university had free COVID-19 vaccinations available for students at any point?” (n=32), 18 respondents answered “Yes,” 13 respondents answered, “I do not know,” and a single respondent answered “No.”

Approximately 80% of United States citizens received at least one dose of a COVID-19 vaccine by 2023 (Vankar, 2023). The response rate from this question “Did someone you know get vaccinated on campus?” (Figure 13) without the “I do not know” answers is slightly above this statistic, while the presence of respondents who were unaware speaks to the overall trend noted in this dissertation that respondents did not want to talk about their vaccination status or COVID in general.

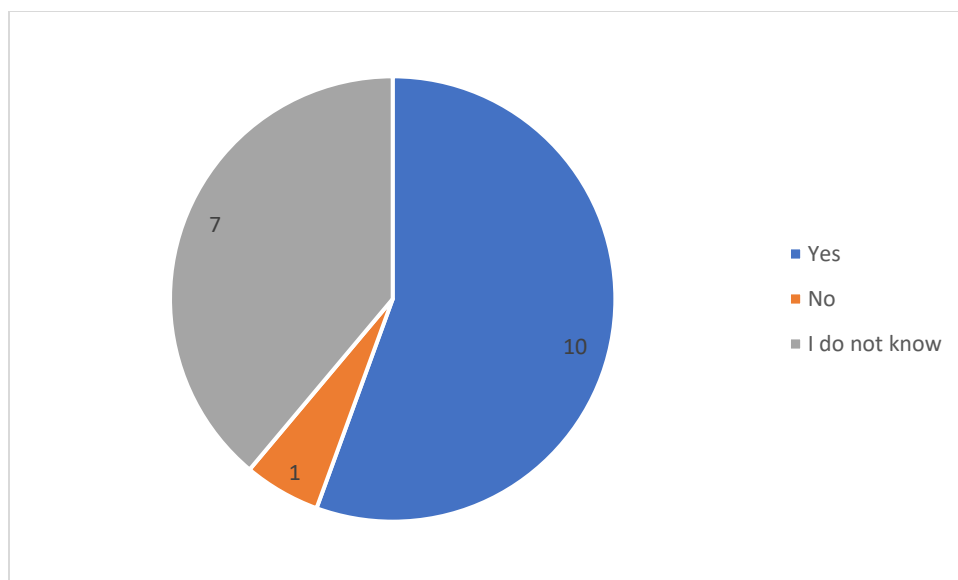


Figure 13: Result of “Did someone you know get vaccinated on campus?” (n=18)

When asked “Where have you seen COVID-19 information distributed by your university?” the recollection of different distribution methods approximates my prediction going into this section of the research, with email, social media, and posters making up the bulk of the communication that students recalled, although social media had significantly less responses than I expected (Table 7). Notable emergent results that students listed as information sourced affiliated with the university include their professors, social distancing stickers and handwashing stations, newsletters, and the singular respondent who considered the t-shirt they received on campus as a source of COVID information.

Table 9: Result of “Where have you seen COVID-19 information distributed by your university?” (n=31)

Information Distribution Methods	Number of Affirmatives
Email	22
Social media	11
Posters	17
Signs	3
Flyers	2
Newsletters	2
Handwashing Stations	1
Websites	3
Got a t-shirt	1
Professors	2
Social Distancing Stickers	2
Nothing	3

Students reported “Yes” at a higher rate than expected in Figure 14 when asked “Has someone you know caught COVID-19 while on campus?”, with my prediction being that even within an anonymous survey response they would be hesitant to share information on COVID spread.

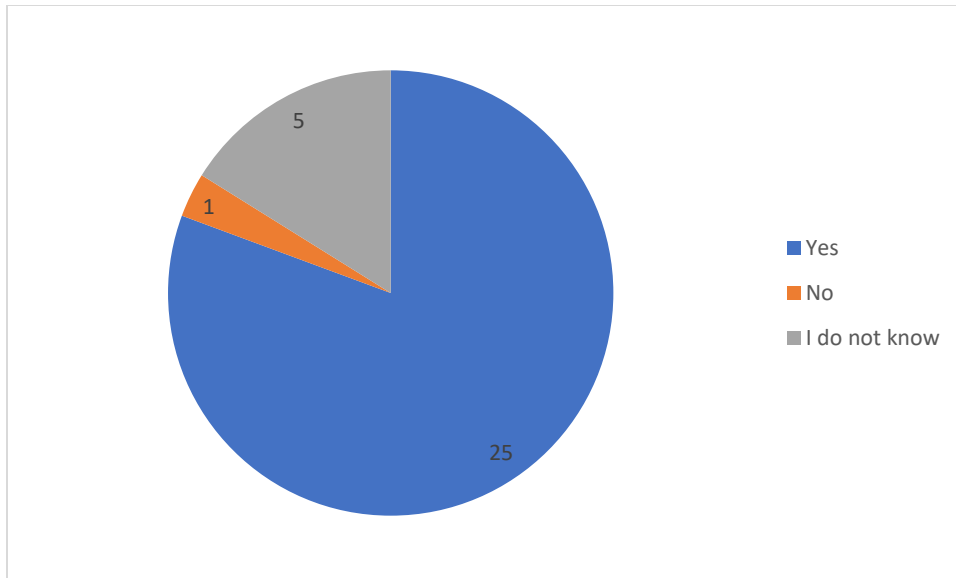


Figure 14: Result of “Has someone you know caught COVID-19 while on campus?” (n=31)

While no respondents answered with the incorrect “Yes” response, an alarming number still did not know if they needed to be vaccinated for COVID to be on their university campus. However, the response rate for this question should be considered in context with the following graph, Figure 25.

Continuing from Figure 24, the respondents were approximately consistent in their lack of knowledge of vaccination statuses on their university campus. Considering all students on all three campuses have a list of vaccinations they either have to have been inoculated for or have submitted an exception, the number of students who did not know this serves as an important statistical point for analysis in Chapter Five.

Table 10: Results for “Does your university have a mandatory COVID-19 vaccination?” (n=31) and “Does your university have mandatory vaccinations for diseases OTHER than COVID-19?” (n=31)

Does your university have mandatory vaccines for...	COVID?	Diseases other than COVID?
Yes	0	22
No	20	0
I do not know	11	9

Answers from the Likert Scale will be utilized more in Chapter Five alongside the interviews to help triangulate responses, but there are a number of initial analyses that can be derived from how students viewed different perspectives on the pandemic. Respondents were typically confident in their understanding of the pandemic and what information was correct or not, which was reflected when asked about the efficacy of vaccines and the premise of the pandemic being created in a laboratory based on available confirmed information at that time. Respondents answered “No opinion” more often on questions marked “political” than other questions, with the notable exception of how Donald Trump handled the pandemic compared to Joe Biden. Questions that were labeled as “university-centered” were more likely to prompt answers that were not at the extremities of the chart or “No opinion,” indicating that respondents were not entirely committed in their opinions one way or the other. Finally, approximately the same number of respondents answered each of the “conspiracy” questions in the manner I predicted would represent someone who believed in such information, indicating that at least one respondent to the survey was susceptible to misinformation or was suspicious of mainstream media’s communications, which includes their university. For Table 11, the following

abbreviations will be utilized: “SD” for strongly disagree, “SWD” for somewhat disagree, “NO” for “No opinion,” “SWA” for somewhat agree, and “SA” for strongly agree.

Table 11: Likert Scale Answers (n=30)

Likert Scale Statement	SD	SWD	NO	SWA	SA
I took more precautions than my peers on campus to prevent COVID-19 spread.	0	1	11	7	11
I feel knowledgeable about what is or isn't real about COVID-19.	0	0	2	13	15
I felt at high-risk of catching COVID-19 on campus.	2	4	7	9	8
My professors talked too much about COVID-19.	9	9	10	0	2
My university was well-equipped to handle COVID-19.	3	9	6	9	3
My physical and digital classes are comparable in quality.	3	9	2	13	3
My university was too overbearing in their COVID-19 response.	8	11	8	3	0
I have confidence in my university's health system.	2	6	6	14	2

Likert Scale Statement	SD	SWD	NO	SWA	SA
The pandemic will never end.	9	6	4	9	2
My university still talks a lot about COVID-19.	10	10	4	6	0
Donald Trump handled COVID-19 better than Joe Biden.	21	3	5	0	1
My campus is safe from diseases.	7	10	6	6	1
The Florida government and my university disagreed on COVID-19.	0	2	8	11	9
The federal government and my university disagreed on COVID-19.	4	6	11	6	3
The COVID-19 vaccine is unsafe.	21	5	1	2	1
The pandemic is the government's fault.	6	7	8	7	2
I need more than a cloth or surgical mask to feel safe.	6	6	4	10	4

Likert Scale Statement	SD	SWD	NO	SWA	SA
My campus makes me feel welcome to share my opinions on COVID-19.	2	3	7	16	2
I feel safer on campus because of vaccinations.	3	2	3	9	13
The pandemic was created in a laboratory.	18	3	6	2	1
COVID-19 was overblown,	18	7	0	4	1
My university friends and peers disagree with me about COVID-19.	8	12	4	6	0
My university communicated well about COVID-19.	2	1	7	10	10

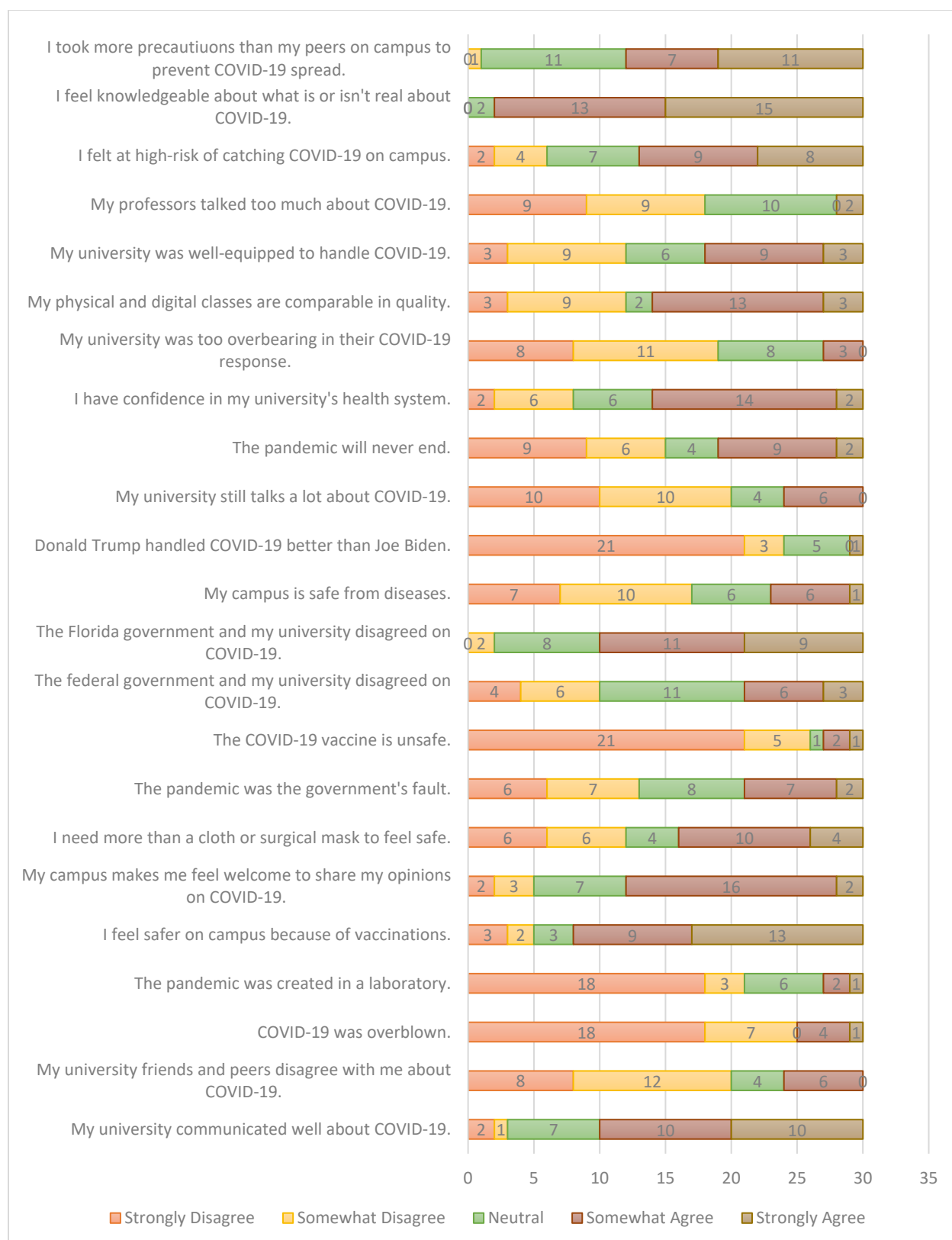


Figure 15: Likert Scale Data Visualization (n=30)

Conclusion

In conclusion, this chapter has critically examined the survey methodology employed in this dissertation, providing a detailed account of its design, implementation, and listed outcomes. The strengths of the survey methodology are complemented by the strengths of the subsequent interviews, which will be analyzed in the following chapter. Chapter Four builds further upon the mixed-methods research performed here in an effort to provide and triangulate the overall thoughts that students had regarding their university's COVID-19 information and communication. In Chapter Five, I will utilize the results from both chapters to recognize and explicate notable trends in the ways students responded to university communication in order to provide context to these results.

CHAPTER FOUR: INTERVIEW METHODOLOGY

Introduction

Building upon the survey methodology detailed in Chapter Three, this chapter delves into the methodological framework employed to conduct interviews with survey respondents and preliminary analysis of the results. Recognizing the limitations of surveys to capture the nuances in opinion and recollection that individuals may have in their pandemic experience, these follow-up interviews offer a valuable avenue for further exploration of the respondents' lived experiences during COVID-19 and their subjective perspectives. Through participant recruitment, semi-structured interview protocol development, and ethical considerations necessary to protect the safety of the respondents on a controversial subject such as COVID-19, this chapter focuses on the methodological approach to analyzing the interviews to create qualitative insights that complement the survey's quantitative results.

The decision to incorporate interviews into the research methodology of this dissertation stems from the aforementioned complementary nature of such qualitative analysis (Shackleton et al., 2021, p. 110-112), allowing the respondents themselves the opportunity to further elaborate on their subjective experiences as a college student during the initial two years of the pandemic. Interviews specifically provide a platform for such responses, enabling research participants to articulate specific elements of the pandemic that may have been excluded from the survey that they feel serve as important to their own lived experience, including emotional recollection of subject matter that provides additional context to the quantitative findings from the survey. By adopting this mixed-methods approach, this dissertation is able to combine the data from these two separate data collection methods to triangulate specific outcomes that students expected from their universities on pandemic communication, and to provide further context for

recommendations made in Chapter Five. Additionally, the development of a semi-structured interview format allows for a flexible approach to data collection from participants (Ruslin et al., 2022, p. 24), enabling some exploration of emergent themes from dialogue.

Ultimately, this chapter serves as a methodological framework for how these interviews were conducted and some of the primary data that can be gleaned from rhetorical analysis, which is explored complementarily to the survey data in Chapter Five.

Rationale for Interviews

Justification for Mixed-Methods Approach

Interviews serve a crucial role in the explication of the quantitative data gathered from the survey portion of this dissertation. The concept of pragmatism is a key component in the design of such research methodology; Shannon-Baker (2015) indicates that such research can be both “contextual and generalizable” and allows the investigator to maintain objectivity in empirical data analysis and collection while incorporating subjective reflections in order to better understand the meaning of these results (p. 4). Additionally, the analysis paradigm of critical realism provides context towards understanding what the triangulated data actually says or implies, emphasizing the importance of the researcher’s own perspective in reading and understanding results (Shannon-Baker, 2015, p. 12). The flexibility of interviews provides the interviewee with the ability to personally identify and read out their own perspectives, allowing for a dialogue of sorts between the researcher and the participants.

This flexible approach is further emphasized through the incorporation of the semi-structured interview protocol, where general themes were applied to questions during creation to

develop a better structure for emergent discussion. Participant answers do not have to have a singular outcome, and the rigidity of a traditional interview without the ability for some participant influence fails to allow novel topics to emerge. The scope of the COVID-19 pandemic and associated topics is rather large, and the participant may not have felt they could properly represent themselves in a survey with static answers; as a result, this flexibility allows for emergent themes in the data to develop that can provide further support to inferences made from the quantitative survey data alone. As a researcher on this subject, there are elements that I am unable to access regarding how a university communicated with their student, such as personal or private emails sent from the administration directly to the student body. In these instances, expecting a survey respondent to use their text entry boxes to try to explain the complexity and scope of how such private information was perceived becomes unrealistic, and as such this data must be derived from what the participant communicates within an interview setting. These extra details provided by emergent qualitative research also hold stature while trying to triangulate where certain ideas or information may have been communicated, particularly when such materials are not made publicly available.

Participant engagement through flexibility and emergent discussion can be a form of empowerment in a situation such as this, wherein participants are interviewed about what has broadly been perceived as a global crisis. As a researcher, I am put into a position of power when interviewing participants, particularly when viewing how the final data is analyzed; conclusions drawn by myself may not match the expectation that a participant had when sharing such information, and they are ultimately left out of the collaborative process (Ross, 2017). However, interviews with this semi-structured style allow for active engagement in some part of the research process, enabling this dynamic interpretation to have greater depth and detail as a result

of their participation. Surveys are inherently limiting in this regard, while encouraging participants to answer exactly what I hope to accomplish with such a research project; interviews help to supplement this dynamic and somewhat balance their autonomy.

Interview Protocol Development

The protocol for this semi-structured interview was developed with COVID-19 and university-related themes in mind, with certain questions hoping to elicit a response from the participants on their pandemic perspectives. The following protocol in Figure 29 was reviewed by the IRB and approved as part of the dissertation as a whole 12 October 2023. The interview protocol was designed with the similar themes in mind as the Likert scale portion of the survey research: university-centered questions that asked directly about perspectives on the institution's response; community questions that involved the respondent considering how their peers and other campus members may have responded or acted in response to COVID; and some conspiracy questions, where they were prompted with the commonly-discussed subject of vaccines and masks. Follow-up prompts were also provided that could lead the conversation one way or another given the participant's train of thought on the subject, providing some structure to potential emergent themes; however, they were not strictly necessary and in some cases were not used in order to extend the conversation.

Table 12: Interview Protocol for Candidates

Initial Prompt	Follow-Up Prompts
Tell me about your experience with COVID-19 while a university student.	(No follow-up prompts)
What do you think about the COVID information provided by your university? Can you describe the recommendations?	<ol style="list-style-type: none"> 1. Do you agree with the information provided by your university? 2. Do you believe your university is a credible source of health information? 3. Where did you get COVID information while at your university? 4. Do you come from a household that watches (named news source)? 5. Why did you pick (named news source)?
What resources are available at your university if you catch COVID?	(No follow-up questions)
Have you had a class impacted by COVID?	<ol style="list-style-type: none"> 1. What was that like? 2. Did a student or instructor catch COVID?
What do you think about your fellow classmates' responses to COVID?	<ol style="list-style-type: none"> 1. Do they usually agree with you on COVID information?
Do you still wear a mask anywhere on your college campus?	<ol style="list-style-type: none"> 1. (If yes) Where do you still wear a mask?

Initial Prompt	Follow-Up Prompts
	2. Why do you wear a mask (in location) and not elsewhere?
Do you see other students wearing masks on campus?	1. Have you seen students wear their masks off campus? 2. Do you think students change their masking behavior on campus?
What do you think about the COVID vaccine's effectiveness?	1. Do you know someone who refused to get it? 2. Do you believe that, overall, the vaccination has been beneficial or detrimental?
What do you think your university could have done to improve their COVID response?	(No follow-up questions)
Did the pandemic ruin your college experience?	1. Which parts? What were you unable to do?
Do you have any other comments on the overall pandemic within your university life?	(No follow-up questions)

Participant Selection

Recruitment of Participants

Following the survey process of this research, 37 of the 49 respondents were seen as viable candidates to be interviewed due to their consent providing their email address for follow-

up messages. Of the initial 37, 15 candidates were initially chosen to be interviewed through random number assignment and were subsequently emailed 2 February 2024. The email distributed to these potential candidates is listed in Appendix D and was approved by the IRB for communication purposes. Of these 15 candidates, six affirmed via a private scheduling application that they would be interested in participating in the interview process. Four ultimately followed through with their scheduled timeline, with one respondent failing to appear and the other respondent cancelling prior to the appointment time.

Following the initial draft of emails that were sent to these 15 candidates and following interviews that occurred, an additional email request for interviews was sent to the remaining 22 candidates that had not been selected in the first stage of the process on 3 April 2024. Of these 22, an additional five candidates made appointments via the private scheduling application, with one failing to appear and three interviews properly being conducted. One additional candidate also declined to be interviewed and cancelled their appointment prior to the interview being conducted. Thus, I conducted a total of seven interviews.

Conducting Interviews

Logistics of Conducting Interviews

With respondents located in a variety of physical places, digital interviews were seen as the best possible way to proceed to gather data. For security purposes, the video conferencing application Zoom was selected due to its security and storage being affiliated with the University of Central Florida. Respondents were informed that the interview would last approximately 10-

15 minutes in length as per the initial recruitment email in Appendix D in order to allow for scheduling expectations and accommodations.

Respondents were sent a private Zoom link to their university (.edu) email address that they provided during the initial survey portion of the research process ten minutes prior to the scheduled appointment they made to conduct the interview. This Zoom link included the Explanation of Research for Interviews form included in Appendix E, which affirmed their consent to be video and audio recorded. A private Zoom room was created for the sole purpose of interviewing respondents, with my own associated .edu address provided by the University of Central Florida utilized as the account for data collection purposes.

Documentation and Recording

Zoom has a built-in recording feature that was utilized as part of the research process, allowing audio and video footage to be preserved digitally in an online environment. For the purposes of this research, candidates were asked prior to the interview to affirm their consent to be video and audio recorded and were also read the following statements in Appendix F. These recordings were to be destroyed five years after the conclusion of the dissertation research and stored on the affiliated OneDrive for this dissertation.

Additionally at the start of the interview, participants were asked one more time about their consent to participate in the research and the subject matter that was to be discussed was clarified as a reminder to them as seen in Appendix G.

All seven interview participants affirmed their consent to be audio and video recorded. They were also made aware of the other element of documentation through the associated transcript that was generated by Zoom following the conclusion of their interview. These

transcripts were to be automatically generated by Zoom as part of their software and were to be subsequently reviewed by myself to ensure their final accuracy. These transcripts are stored on the OneDrive associated with this dissertation research and will be deleted after five years of storage, per UCF policy. Of the seven interviews conducted, one had video connectivity issues, and joined the interview Zoom room via their smartphone on an audio-only line. As a result, one interviewee's call only has audio recording and a transcript without video recording. Interviewee names were anonymized in their edited transcripts. In the following section of data analysis, the respondents are referred to as James, Alex, Taylor, Jordan, Blake, Cameron, and Harper, and are not listed by their chronological interview time or randomized number generated for recruitment purposes.

Table 13: Demographic Information of Interview Participants

Participant	Basic Demographic Information
James	Graduate University of South Florida
Taylor	Graduate University of Central Florida
Alex	Undergraduate University of Florida
Jordan	Undergraduate University of Florida
Blake	Graduate University of Central Florida
Cameron	Graduate University of Central Florida
Harper	Undergraduate University of South Florida

Preliminary Data

In the following section, summaries of the seven interviews are presented and analyzed, with key points and themes from each one noted. These summaries focus on the participants' perceptions and recollections about COVID and the related university communications. A thematic analysis of results will be provided in Chapter Five, with data from the survey results used to triangulate data points and themes. These summaries are representative of the

participants' recollection alone, and do not represent the actual actions or decisions taken by the universities.

James

James's interview centered on the transition from their undergraduate program into their master's program, which occurred during the end of the time frame for this dissertation's scope in 2021-2022. James discussed the transition from digital classes back to face-to-face classes, and implied that nobody within their department is still masking. This shift from pandemic masking practices was also noted in the undergraduate body at their university. Classes during the 2021–2022-time frame were predominately held face-to-face but were occasionally moved online due to fellow students and instructors catching COVID-19, which also accounted for the “full leniency” of the attendance policy as even hybrid classes began to disappear from the course catalog. The university itself did not communicate regarding COVID by the time James transferred to their university, but the various departments and colleges still emphasized the inclusion of a COVID-19 policy within the syllabus, which also varied between instructors. James quickly discounted the notion that vaccines were not effective when prompted but misidentified the distribution of COVID vaccinations at their university's health department. James identified that the “cohort above theirs,” referring to the class of master's students that attended their program the year prior to their acceptance, was significantly more isolated in nature than their own to the extent they did not engage in intra-department discussions or meetings as often as their own. Finally, James expressed that the pandemic was seen as mostly negative in their eyes, although they then hesitated and mentioned that the more lenient attendance policy was certainly a boon.

James's interview can be characterized by their newness to their university, due to their recent transfer into their master's program from a different, unassociated undergraduate program at a different university. While COVID-19 was certainly seen as something with an outsized impact on their program and department, the pandemic was viewed as something that was in the process of resolving, with safety and security measures mostly being dropped and university life broadly returning to its pre-pandemic state. However, the characterization of the year prior's cohort as aloof and less affiliated with the department due to their fully virtual nature their first year, which in most master's programs entails the bulk of the coursework prior to the development of a master's thesis. These students were unable to engage with the department as normally as other classes, leading to a relative scarcity in their participation according to James.

Taylor

Taylor's interview centered on the struggles of being a university student while also being a parent during COVID-19, as well as some of the academic difficulties they faced while attending their programs at their current university. Alex mentioned that classes and work being transferred to mostly virtual was a positive in their own life, allowing them to focus more on childcare and enabling them to take care of their work. However, elements of parenting were also seen as overwhelming and intrusive in their academic work, which impeded their described process through their program. Taylor also mentioned contracting COVID-19 at one point in their academic career, mentioning that contact with other members of their academic community became more difficult as a result of the virus's effect on them and the compounded effect that was felt in other settings in the academic sphere. Taylor discussed that they did not feel properly informed about COVID, particularly at the beginning of the pandemic, but mentioned that this conflict was not due to the university itself and more due to the surrounding confusion about the

virus in its early research stages. They mentioned the continued presence of handwashing signs on their college campus, labeling it as a net positive from the pandemic and a way that the community had learned more about public health. Taylor concluded by discussing their own masking practices, which are predominantly out of benevolence for other community members and not sharing their own infection with others.

Taylor's interview covered a somewhat diverse range of topics, and follow-up discussion during the interview tended to center around responding to the conversational line that was presented by the interviewee. Being a parent during the pandemic and also during their coursework, particularly with the initial closures and forced work-from-home that impacted childcare services was one of the significant elements of their lived experience during the pandemic. Additionally, Taylor discussed their community at length, implying a strong sense of community image and a desire to protect other individuals on their college campus from diseases.

Alex

Alex's interview details becoming a university student right at the beginning of the pandemic, having been a high school student during the first year of COVID-19's spread. Alex discussed the mass amount of communication that was sent by their university, which was characterized as overwhelming at some points. They pointed towards private email and social media as the primary places they acquired information from their university, in particular referencing Instagram and Twitter. However, the onboarding process of being a new student within a university environment compounded with the confusion caused by the pandemic led to increased stress and a lack of coordination in their classwork. Alex mentioned that their coursework was mostly unaffected by being transferred to virtual classrooms, but called out labs

as something that did not make the transfer as well. They also mentioned that communication with professors suffered during the pandemic drastically, and their performance in classes depended somewhat on the availability of extraneous educational sites such as Khan Academy to help reinforce concepts that were not fully processed during virtual classes. The pandemic was not characterized as having ruined their university experience, and instead was seen as another element of a so-called “adjustment period” where the community had to band together and figure out the best responses to an ongoing issue. Crucially, Alex indicated that they felt their ability to join university clubs and organizations was impacted dramatically by the shift to virtual classes, and when face-to-face classes returned during their time as a student a number of clubs that they were interested in joining had either fallen into disrepair or completely disappeared. However, the larger organizations had retained some sense of leadership and were able to recover from a lack of recruitment. They felt that the dissolution of some of these clubs may have led to increased hardship getting internships and opportunities early on, although that became mostly resolved by the time face-to-face classes returned.

Alex’s interview focused on their transition from high school to college during the pandemic, and the complications they felt resulted from the virus forcing things into a virtual setting. Alex was reluctant to discuss masks or hand sanitizing, but willingly offered that they had been vaccinated and re-vaccinated in off-campus settings. Of note within this interview, the discussion of clubs and organizations is something that had not been covered within the survey portion of this research and served as an emergent conversational topic that the participant was very passionate about. Dealing with the lack of community support from these systems that will often help students find job opportunities was noted as a major disruption caused by the pandemic on top of having to adjust to an online-only environment.

Jordan

Jordan's interview also details their entrance to the college experience during the pandemic, having been in high school as well during the initial outbreak of the pandemic. Jordan emphasized the overwhelming amount of communication that was distributed by the university which viewed many different pandemic topics, such as masking and social distancing. While they noted that the university distributed free masks and had medical care available to students who caught COVID, Jordan indicated that they entirely utilized off-campus resources and materials to make sure that they were protected from the pandemic. They also noted that, despite living on campus within a dorm, they were unaware if the university utilized any sort of quarantining procedure for students that caught COVID. By the beginning of their second year as a university student, they noted that masking decreased dramatically on campus due to the "global news saying COVID has dropped down significantly." Jordan then indicated that, if someone were to be wearing a mask on campus now, they would assume it was for a medical reason other than COVID. When discussing the impact that the pandemic had on their academic journey, Jordan indicated that they "felt sorry for the classes older than them" who were attending college when the pandemic first started. They also mentioned the lack of support structure from clubs and organizations at their university, stating that most of the hobbyist clubs seemed to have disappeared and been replaced by major organizations like the Fellowship of Christian Athletes.

Jordan's interview can be characterized similarly to Alex's, wherein both discussed becoming a college student at the height of the pandemic and the effect it had on their community building and classwork. Jordan was also hesitant to talk about vaccinations but discussed masking and social distancing at length when prompted. The topic of masking was particularly interesting from Jordan, with them wholly discounting the usage of masks now as

something that is not even associated with COVID anymore. The collapse of clubs and organizations on campus also seems to have impacted multiple students within the college sphere, and the callout of hobbyist clubs in particular having dissipated is crucial for understanding where communities and job opportunities went.

Blake

Blake's interview is characterized by the disruption to their academic life by the pandemic, and the additional conflict that was caused by some of the misinformation being spread. Blake stated that they believed their university was more prepared for virtual classes than others they were informed about and had a generally positive outlook on how effective virtual classes were. They also discussed reading every email their university sent, and characterized them as "really, really helpful" for getting through the early phases of the pandemic when they perceived more misinformation was on social media. Despite using the information, they still stated that they did not use their university as a primary source of information, instead referring to the posters that were put up around their campus as what the university was communicating. Blake also indicated that the change to classrooms was not the issue for them, but rather the disruption to their everyday life that caused the most trouble. They also referenced the lack of commute to class being a boon to their workload and ability to get through educational materials.

Blake's interview was generally more positive than other interviews conducted during the course of this research, with many optimistic statements and references to the benefits of virtual classwork and good communication from their university. Of note, the disconnect between university emails and university posters posed as a form of cognitive dissonance.

Cameron

Cameron's interview was characterized by communication from different sources and the conflict they posed in acquiring information about the pandemic as it was just occurring. They referred to the university's communication as "having a major delay" compared to what they were seeing on other platforms, and in an effort to gather more information "communicated with a colleague at another university about what they were hearing." Cameron discussed the COVID information in the form of "leaks," believing that information had to get through the public lens before actually being accepted and distributed by the university for better or worse. They believed that their department was one of the "early adopters" of the virtual classroom setting and saw that as a very strong motivator for why their classwork was not disrupted by the pandemic as much as their colleagues. Cameron also thought of the communication from Florida universities "being delayed" compared to universities "up north," referring to the northeastern United States. They attributed this to Florida's politics at the time of the pandemic, seeing it as a negative that impacted communication within the university system. When asked about masking, Cameron was unable to note the last time they had identified another student wearing a mask on campus, but still masked themselves in some situations and referenced that a number of their instructors also still followed the practice. When inquired about what situations constituted somewhere to mask, they listed large groups and medical offices as places they felt more comfortable masking than not. While they did not personally know anyone on campus that refused to get vaccinated, they were aware of the movement and were unsure what to think of "non vaccinated folks." Cameron also mentioned that they were a non-traditional college student and had already been working remotely prior to the pandemic and believed that was also a major factor in their ability to cope with the changes to class location.

Cameron spent a lot of time within the interview discussing a mix of what the university did well and what the university failed at. While still able to communicate information at some point, the political situation in Florida was seen as a major detriment that forced their university to move slower than those in other states. Cameron also expressed disdain and disappointment with individuals that were not getting vaccinated, believing that they were propagating the spread of the pandemic and indicating where they believed the blame for the ongoing infections was to be placed. Additionally, their status as a non-traditional college student became a boon within the context of their education and ability to adapt to online coursework.

Garth

Garth's interview centered around their status as a very new college student, and their lack of belief that COVID measures still needed to be followed in some way. Garth began the interview by stating erroneously that their university had an enforced mask mandate when they entered college, and characterized themselves as an out-of-state student that came from a location where there were essentially no pandemic precautions being taken. They were unable to notice any differences between masking policies and COVID information between the time when they toured their college to approximately six months later when they became an on-campus student. Garth also indicated that they believed a large number of their classmates were still masking but did not do so themselves. They discussed that their mask wearing was largely reactive and would require prompting from other individuals on whether or not it was a necessary precaution to take. Garth also described masking behavior on campus by other individuals as something that allowed them to attend classes while sick, and was an action taken out of caution rather than protecting themselves or others. When asked about vaccinations, Garth showed no hesitancy to get vaccinated, but did mention that they did so in order to access places

that restricted access to those without proof of vaccination. They also indicated that they remained staunchly middle of the road when it came to politics, “actively trying to dodge” political discussions of COVID in particular. Garth acquired COVID information primarily from sources other than their university, stating that most information was derived secondhand through family members from Facebook groups and local news stations. They mentioned a number of family members and colleagues attempting to show them YouTube videos detailing why the pandemic was a hoax but dismissed those as inaccurate. Finally, Garth stated that they believed their university should have had one singular COVID policy that was communicated clearly to all students for them to follow, rather than distributing information in a non-centralized fashion through emails and posters.

Garth’s interview characterizes a perspective that was absent from other interviews, detailing actual misinformation and the sources that they were approached with such information from. Specifically referring to family members, Garth indicated that much of this misinformation came from outside of the university sphere, and even referred to their university’s message on the pandemic being diluted by too many emails and communications from different sources. Of the candidates interviewed for this research, Garth was the only one to indicate that they actively avoided discussions and information pertaining to COVID on the basis that they felt it was too political while trying to maintain a neutral attitude on the subject for their own good.

Conclusion

In conclusion, this chapter has delved into the interview methodology utilized in this dissertation’s research, highlighting the strengths in capturing qualitative data in this manner. Through the analysis of these interview techniques and preparing the protocol, valuable insights

into the methodology of this work were explored that will help to shape this dissertation's findings and recommendations. As we transition to Chapter Five, the synthesis of these findings will be analyzed alongside the survey's quantitative results in order to build a comprehensive picture of how students reacted to their university's COVID-19 communication and what could have been improved.

CHAPTER FIVE: FINDINGS AND CONCLUSIONS

Introduction

In this final chapter, I delve into the findings and conclusions derived from both the quantitative surveys and the qualitative interviews regarding university communication practices amidst the COVID-19 pandemic. The overarching goal of this research was to examine students' perspectives on how their universities communicated crucial pandemic information to them in a time marked by misinformation and uncertainty, rapid changes, and significant health risks that influenced the landscape of the United States in a socioeconomic manner. By synthesizing the data collected through the surveys and interviews, this study aims to triangulate key points of information and communication that students felt mattered most in their reflection on their lived experience during the pandemic and can shed light on which methods resonated most effectively to students and which aspects needed to be improved for enhanced comprehension and engagement. By viewing the perception of this communication's effectiveness and where students believed the universities failed or excelled, recommendations can be made for universities regarding their public health communication in future crises and pandemics.

This final chapter begins by synthesizing the data points extrapolated from the surveys and interviews in Chapters Three and Four respectively, signifying which elements from the university's pandemic education and communication most embedded themselves within the students' recollection of these events, positive and negative. By emphasizing the common themes between the qualitative and quantitative portions of this research, recommendations will be provided for university communication departments on what subjects mattered most to the respondents in this dissertation's study with the intent of allowing such communication to be more efficient in an age where the spread of both disease and misinformation have become both

commonplace and intertwined. This chapter will conclude with final reflections on the dissertation process and limitations of such research, while also encouraging research to continue on this subject based on the results of this study.

Discussion of Findings

In this chapter, I synthesize the survey and interview data using thematic analysis. Terry et al. (2017) explains the grounding for this relationship between qualitative and quantitative data, with thematic analysis providing the ability to “[tell] a story that is based, and about, the data that makes sense of patterning and diversity of meaning” (p. 23), providing a flexible framework to data analysis without the need to develop an algorithm or formula capable of handling qualitative data. This approach also ensures the quality of data derived from a smaller sample size such as within this dissertation’s research, describing the data’s significance not through numbers of responses but through the strength of the analytical quality of the interpretations of this data (Mason, 2002, p. 104). Thematic analysis’s design is, by nature, “[borrowed from] ...the most useful techniques from each theoretical and methodological camp and [adapted] to an applied research context” (Guest, MacQueen, & Namey, 2014, p. 14), allowing for a flexible approach to data analysis that is complementary to the flexible nature of following survey data with semi-structured interviews that can allow emergent themes to develop through study.

Efficient Methods of University Communication

Table 9 in Chapter Three details students' responses on the most prevalent mediums that their university communicated COVID-19 information through. While emails to students stood as the most recalled method of institutional contact that students remembered, I was surprised by social media not outpacing one of the forms of physical media through posters. At the end of the pandemic's second year, the Pew Research Center (Auxier & Anderson, 2022) reported that 84% of Americans up to the age of 30 used social media daily, which consists of the majority of the population of college-aged students. The contrary attitude towards COVID information on social media versus social media usage in general was noticeable in the interviews conducted, with Alex being the only candidate that reported utilizing social media in any way to access university-shared materials. Blake also discussed social media within the scope of COVID information, although in a different light; they saw the prevalence of misinformation on social media as a net negative to actually understanding what was occurring with the pandemic, which may have led them to not access or click on pandemic-related material on their social media feed including posts provided by their university. Respondents to the Likert Scale question "My university communicated well about COVID-19" with 66% of the responses being "somewhat agree" and "strongly agree," which combined with the data displaying posters and emails as the most remembered form of contact from the university forms the conclusion that these two sources were at least moderately effective.

Blake's interview in particular noted misinformation on the Internet as a major source of disruption to both their life and how they were able to acquire health and safety information, and they indicated that they read every single email that the university sent regarding COVID-19 seemingly as a way to stay grounded during the chaos of the early pandemic. In this instance the

university is seen as a figure of authority on the subject; this premise is furthered through Blake's response that they utilized posters on their campus as another primary source of information but did not attribute them to their university, a cognitive dissonance given that the university created, posted, and maintained those posters for student access and viewing. Two respondents also noted that they believed their professors were a direct agent of communication employed by the university to distribute information on COVID-19, leading to a further understanding of what apparatuses are seen as propagated by the university or otherwise.

Physical media also played a significant role in the recollection of respondents on how the university communicated information, with posters being the second most common response in Table 9 while also having the most diverse set of emergent answers that were provided. The perception of what "counts" as university communication begins to take on a much broader meaning within respondents' recollections, with physical mediums such as social distancing stickers and handwashing stations being seen as sources of information that were provided. Messaris (2009) details visual rhetoric as being "considered more emotional than language, but only to the extent that it has a wider arsenal of emotional devices at its disposal" (p. 9), and the physical presence of such information distributed around campus by the university posed a reminder that respondents' lives had been changed and the safety of the campus had been impacted by the pandemic. The student who noted in the text-entry box noted that they "got a T-shirt from an on-campus drive" on the subject of COVID-19, indicating that the physical act of receiving memorabilia related to the pandemic from their university served as a valuable act of information transference that they recalled later.

Taylor and Cameron were predominately online-only students during the initial outbreak of COVID and were limited to university emails and online communication from the university

as their forms of engagement. Cameron even discussed that they believed the university's communication system led to much information about the pandemic being out-of-date or delayed in its nature, believing that the university was somewhat impeded by the state government's politics to share such communication in a digital space. 66% of the respondents to the Likert Scale question "The Florida government and my university disagreed on COVID-19" with "somewhat agree" and strongly agree" answers in support of Cameron's claim, indicating that some students were able to perceive the disconnect between their university's messaging and the state government's version of COVID information, which suggests that students were aware of the political motivation in messaging control utilized by the state government to influence opinions on precautionary measures taken towards controlling the pandemic (Nehamas & LaFraniere, 2023). Taylor's interview brings up another interesting point as to the physical media being seen as something the university itself had more control over, rather than the emails; they characterized their knowledge of the pandemic as lacking during the initial outbreak when they were an online-only student, but upon their return to physical classes and campus visits they noted that the presence of handwashing signs was a comforting reminder about what was misinformation and what was not.

Looking towards the future of the ongoing pandemic, the majority of respondents made it clear that by the time of this study their university had broadly stepped away from COVID-19 communication, and that general normalcy had resumed. Only 20% of respondents to the Likert Scale question "My university still talks a lot about COVID-19" with any sort of assent, with all related responses being "somewhat agree." Jordan's interview detailing their feelings of sympathy towards "older classes" – the premise that students who were already at the university when COVID-19 began to spread had their college experience ruined to the point of needing pity

– indicates the sentiment that the pandemic has mostly ended for their own cohort, as well as mentioning that they now associated masking with diseases other than COVID-19. Garth estimated the number of students still masking on their university campus to be one in 50, a significantly lower statistic than the reported 12% of Americans still masking (Miller, 2023) although Garth displayed a number of anti-masking sentiments throughout their description of the COVID-19 pandemic and may be underestimating the practical number of students still masking due to ignoring them more often. Additionally, all seven interview participants indicated that they no longer wore masks full-time on their university campus, often indicating instances in which they would mask as an exception like health clinics and at the request of other individuals.

The Spread of Misinformation or a Lack of Knowledge?

While uncommon, a few respondents in both the surveys and interviews indicated anti-vaccine and anti-medical sentiments regarding the subject of the pandemic. Only one survey respondent indicated they took less precautions than their peers on campus to prevent COVID-19 spread, although 11 respondents answered neutrally as well. Zero respondents in total answered the survey question of “I feel knowledgeable about what is or isn’t real about COVID-19” in the negative, indicating an overall sentiment that respondents were mostly confident about their ability to identify accurate or inaccurate information regarding the pandemic. Three respondents did not believe that the vaccine was safe, while an additional respondent was neutral on this matter, a common sentiment among anti-vaxxers and those without trust of the American medical system (Ortiz-Sánchez et al., p. 3). Five respondents believed that the pandemic itself was overblown as well, a perspective which was also shared by the sole interview respondent who discussed the difference between their initial out-of-state location’s pandemic safety

measures and the proportionally more intense response by their Floridian university to masking and disease control.

Garth's interview further emphasizes one of the decisions seen throughout the survey data: the concept of remaining neutral in the face of COVID-19 information. The Likert Scale question "I need more than a cloth or surgical mask to feel safe" garnered a strong split in answers, with 16 of the 30 respondents indicating that they were either neutral or opposed to the premise of wearing a higher quality mask. N-95 masks are "still considered to be the most effective PPE... [with a] filtering capability of more than 95%" that far outpaces cloth and surgical masks in their protection against the spread of COVID (Narayan et al., 2023). Garth's premise of avoiding COVID-19 information in an effort to stay politically neutral on the subject supports the premise of some students avoiding or ignoring new information and may also indicate their inclusion in the growing number of Americans who have stated they do not follow the news closely (Pew Research Center, 2023), a trend which accelerated during the initial year of the pandemic. The spread of COVID-19 was noted to have a significant impact on the rise of anxiety levels in the general global population (Disord, 2021), a trend which Americans combatted by simply avoiding novel information on the disease in an effort to return to normalcy. A subsection of students appears to have followed this trend as well as seen in this analysis, which may explain the responses to questions on university information spread where respondents answered that they did not receive any; these students simply avoided these efforts to educate. Jordan's statements during their interview on what masks stand for now – something that is no longer even related to COVID control, in their mind – further emphasize the disconnect between the continued spread of the pandemic and the overall stigma of continuing to think about the pandemic. 19 of the 30 respondents to the Likert Scale question "The pandemic will

never end” indicated a belief that the pandemic was at the very least controlled, if not over, and no longer spreading. However, despite 25 of the 31 respondents to the question “Do you know someone who caught COVID on campus?” answering in the affirmative, 13 of the 30 respondents to the Likert Scale question “I felt at high-risk of catching COVID-19 on campus” still indicated that they did not feel at high risk from the disease on their college campus.

Degradation of the Community and Communication by the Pandemic

The diminishing of the campus community and the communication by the university during the pandemic was noted in a number of student responses, particularly throughout the interviews of Alex and Jordan. Campus clubs and organizations were an emergent topic that became prominent during both of their interviews. Alex discussed how smaller clubs struggled to survive until students returned to campus, often due to the lack of leadership supporting them while classes were virtual and students being unable to meet regularly; this sentiment was echoed by Jordan’s testimony on campus clubs, where the smaller hobbyist clubs were unable to maintain their structure while major and national organizations like the Fellowship of Christian Athletes were able to leverage their size and numbers to still retain some semblance of leadership. Clubs and organizations are touted by universities as one of the most significant ways the student body is able to collaborate and socialize (Foubert & Granger, 2006, p. 171), but most university clubs and organizations have in-person meetings to encourage face-to-face socialization and participation in activities and events. Without the presence of a centralized, physical college campus, as many of 25% of these organizations were left with no active members to maintain structure and membership (The Feed, 2024). To this end, the National Survey of Student Engagement indicated a plurality of students faced increased mental distress

and anxiety during the pandemic, which was attributed to the lack of clubs and organizations as well as the shift to virtual learning exclusively (2021, p. 4-5).

12 out of 30 respondents indicated in the Likert Scale question “My physical and digital classes are comparable in quality” that they dissented, a sentiment that was also communicated by all three undergraduate candidates that participated in the semi-structured interview. Alex noted that the shift to virtual classes led to a decrease in their ability to coordinate their classwork both with their instructor and their peers, leading to an increase in anxiety and frustration with their schooling. They mentioned that lab courses transferred particularly poorly and did not feel like they could rely on instructor help with learning and as a result, needed to turn more to online and non-university-affiliated learning resources. Jordan also referred of utilizing materials that were not related to their university, which implies that being new students to their university ecosystem may have increased the difficulty of on-boarding to their collegiate work. Garth did not discuss their coursework as extensively as the previous two interviewees but did mention not preferring virtual classrooms over physical ones. 19 out of 34 respondents indicated that they had their courses switched online as seen in Figure 13, and Singh et al. (2021) displayed that the quality of online education was heavily influenced by the familiarity of the instructor with the modality, which would subsequently affect the outcomes of student learning in such scenarios (p. 112). As graduate students who characterized themselves as already participating in virtual learning, James, Taylor, and Cameron all communicated that online learning was not as difficult for them to adjust to, and even preferred in some situations. Instructor communication was still mentioned in all of these interviews as part of how the university communicated information.

Contribution to Knowledge

Key Findings on COVID-19's Impact on College Students

This dissertation has explored the effectiveness of university communication strategies during the COVID-19 pandemic through an analysis of survey responses and interview data in order to understand students' recollections and responses to what information was properly and efficiently communicated. Key findings include the notion that students saw their university in a mostly positive light when it came to the efficacy of communication; this notion being dependent on the students' familiarity and comfort with identifying university resources prior to the pandemic. Students predominately perceived emails and posters as the primary methods of communication from their universities, with social media posts being seen but conflated with the rampant misinformation that has been prevalent throughout the pandemic. As a result, the university's position of authority was best communicated during the pandemic through private and more personable channels, including a sense of physicality on their campuses. By relying mostly on information transmission methods that were directed towards them, students generally felt confident that they were able to cut through the typical noise of social media and acquire the relevant and accurate information to protect their own health and wellbeing during the initial outbreak of the pandemic. This perception is further exemplified through the respondent interviews who indicated increased confidence in their ability to parse knowledge once they returned to their campus, and misinformation and confusion surrounding the pandemic seemingly associated with students who did not follow the news or may have received information primarily through secondary sources.

Additionally, students were very communicative about the decreased lack of community that was felt by themselves and others during the period of time when universities moved to

virtual classes and modalities. Satisfaction with university communication was correlated with the return to campus in general, and when compared to the disappointment and lack of sense of community felt by students who had on-campus clubs and organizations reduced or removed, the outcome appears to be that students were more inclined to see the university as in a position of authority on COVID when they were directly involved with campus life.

In unpacking the thematic analysis utilized between the survey and interviews, several unifying themes have emerged that display the lived experiences and recollections of students during COVID-19. The broad themes of confidence, community, and communication serve as pillars of such thematic understanding, as seen in Table 14, and were reflected across both the survey question design and interview results. These themes not only underscore the complexity of the pandemic's impact on university students, but also highlight the relevance of how the university is able to bolster its own efforts to support students bearing in mind these three elements. By synthesizing these findings, this study contributes to future research on efficient pandemic communication by universities by offering a generalized framework through which to address and interpret future pandemic communication. Moving forward, I believe that these themes will be the most relevant should COVID continue to impact the general population at its current rate through infection or long COVID or should a novel crisis impact university students.

Table 14: Table of Thematic Analysis

Major Theme	Themes	Subthemes
Communication	<ul style="list-style-type: none">• Mediums of distribution• Validity of medical information less important than actually receiving it	<ol style="list-style-type: none">1. Posters and emails2. Direct messaging strategies3. Beginning of pandemic messaging strategies effective later4. Students retained initial messages' information despite updated research
Community	<ul style="list-style-type: none">• Need for support during pandemic• Failure to maintain onboarding• Physicality is key	<ol style="list-style-type: none">1. Clubs/orgs unable to survive without leadership2. Students' struggle to adapt to new environment magnified by pandemic3. Being on campus increased confidence4. Dislike of online courses
Confidence	<ul style="list-style-type: none">• Institutional authority• Physicality influenced reception	<ol style="list-style-type: none">1. Media reception increased on campus2. Confidence in university remained high

		3. Personal confidence high in retrospect
--	--	--

Areas of Further Exploration

The connection between on-campus participation and the perception of the university as a stronger figure of authority and more accurate source of COVID information is a topic I believe could be explored further within the research of student recollections of pandemic life. For instance, comparing the difference in attitudes between students who did not participate in clubs against those participated in clubs and organizations of various sizes may indicate a connection between general satisfaction with university life outside of the campus and their ability to actually function as a member of their student community. Fraternities, sororities, and major national organizations with strong leadership frameworks should be studied in particular, due to their ability to maintain cohesion despite the transition to virtuality and the reintegration of students into those communities following the return to proper campus life.

Additionally, I believe the attitudes seen by respondents towards their confidence in ability to study COVID information should be further analyzed, with specific data points from pandemic control inquired about in an effort to understand which elements of communication were most impacted by the speed at which information changed during the early stages of the pandemic. This dissertation took a broader approach with what students associated with pandemic life in an effort to allow students to detail what they felt was most relevant and topical in their own university life, but the evolution of specific tools and knowledge like the types of

masks when masking, the usefulness of vaccinations, and the change in known efficacy between social distancing and droplet particulates warrants further research.

Finally, the correlation between physical and digital communication and the perceived authority of the university as a communicator may necessitate further study to understand which forms of communication are most effective under more general circumstances on topics that are not as politically divisive or broadly discussed such as COVID. Basic knowledge of campus life might be important to students and how they perceive what is going on within their college campus; is posting on social media about the presence of an active threat on campus as effective as just sharing an email with all students? Might the presence of such information in a public location where discussion can occur cause such knowledge to become more diluted by nature to members of a campus community that already has a strong mouthpiece through direct messaging? Such knowledge would help reduce external discussion related to the university that may impact students after the fact, such as rampant speculation on threats and the potential for a scene to “go viral” and attract unwanted attention from the Internet.

Study Limitations

Due to the distribution method of this study being reliant on the goodwill and interest by third parties to communicate with their students for it to even be seen in the first place, I believe the response rate was significantly lower than if I had emailed students directly. For example, some departments indicated that it was their policy to not distribute such solicitation to their student bodies, and similar policies may have led to a lack of distribution of surveys to Florida A&M University students. Additionally, offering an incentive for the completion of this university through gift cards or financial rewards may have helped promote participation.

Finally, despite personal concerns that posting on social media would attract unwanted attention and bots, the Qualtrics platform proved itself to be capable of detecting such threats through the ReCaptcha system.

An additional limitation placed on the data collection in this dissertation is that the subject of COVID has mostly become a topic of disinterest in college students and Americans as a whole, both in their mannerisms and their recollections on the matter. Students have broadly not wanted to engage and interact on the topic, as the premise that COVID happened serves as a reminder of a very anxiety-inducing period of time where life was at its worst for many individuals, particularly in the loneliness and lack of community that was apparent in the statements and testimonies by my participants. Even within the interview setting and being prompted about COVID, multiple participants often tried to shift the topic away from the pandemic; the trauma of COVID became a legitimate issue with attempting to collect data, and I suspect that perception played a role in the lack of desire for departments and instructors to share my dissertation survey link with their students.

This study was limited in the diversity present in its respondents, which may have impacted the overall data that was collected. Respondents were predominately white with some Hispanic representation, leading to possible interpretations that were biased towards the lived experiences of these demographics. Additionally, data was not collected within this dissertation on multiple subjects that may have played a significant factor in the respondents' perceptions of the pandemic and how they had to respond; namely childcare status, employment, and gender/work dynamics within households. While multiple interview participants indicated that they "lived at home" during the pandemic, referring to their non-university place of residence,

only Taylor specifically noted their status needing childcare and employment during the initial pandemic as a graduate instructor at their university.

Research Question Responses

This section discusses how the research and analysis answer the research questions (RQs 1 through 5) and their associated sub-questions seen in Chapter One.

RQ#1: Medical Information's Dissemination into a Community

RQ#1: How does medical information disseminate within a university community?

The methods of transmission of medical information within the university community were found to be quite general in nature; the most recalled platforms for distribution were emails, posters, and social media in that order. The university was seen as an institution with a position of authority during the pandemic, and as a result students were generally receptive to whatever information the university communicated. Unfortunately, it was difficult to identify specific elements of misinformation spread within the university community due to the wide range of answers on the topic, but at the very least Garth's interview established that some portion of misinformation was spread by close family members when a participant was not directly engaged in active learning about COVID-19. Students were also more likely to remember information from the beginning of the pandemic like cloth and surgical masking alongside social distancing, without the need to update for new medical research that showed the efficacy of other precautionary measures like ventilation and droplet spread. Students also appeared quite

confident in their knowledge about COVID-19 in retrospect, which extended to their perception of medicine at the time of the initial outbreak.

RQ#2: Updated COVID Beliefs

RQ#2: What information do students believe or not believe with regards to COVID now?

As seen in both the interviews and surveys, students broadly felt confident in their understanding of COVID, but no longer masked as often or even no longer associated the ask of masking with the pandemic. While potentially still around, respondents indicated that COVID was no longer something they paid close attention to, being a subject that had mostly resolved itself. Much of the language utilized by interviewees was past tense and implied an end had come to COVID around the same time universities no longer communicated information on the subject to their student bodies in Spring 2022.

RQ#3: The University's Role in the Pandemic

RQ#3: What were students' reactions to their university's COVID plans and recommendations?

Overall, students had a positive opinion on how their universities handled the COVID pandemic, associating the information derived from the university as accurate and generally adhering to recommendations made throughout the spread of the disease. Once the universities declared the pandemic to be over for most students, respondents indicated that they believed such information and proceeded with life returning to normal. Students indicated very strongly that they believed they understood the medical information that they were provided, even though they are no longer following best practices with regards to the ongoing spread of the virus.

Finally, the physicality of the interviews with students and its effect on their medical perspective was unable to be identified due to the digital Zoom nature of each interview.

RQ#4: Students' Knowledge of Unchanged University Medical Practices

RQ#4: Are students aware of the existing medical policies at their universities which were unchanged due to the pandemic?

Respondents generally indicated in the survey that they understood the university had standing mandatory vaccinations, although a comparatively sizable but minority number of responses indicated a lack of knowledge on the subject matter. The few students who answered with anti-vaccine sentiments seemed able to separate the COVID vaccine from other vaccinations, as one respondent identified that they believed the COVID vaccine was harmful but otherwise did not indicate that they were anti-vaccine. Following the interviews, students also made note of the increased presence of handwashing signs and hand sanitizer stations on their campus after the perceived end of the pandemic, with the premise that the university's ability to communicate medical information effectively had grown during the COVID era.

RQ#5: University Success

RQ#5: Were universities successful at communicating COVID information?

The answer to this research question relies on what one considers COVID information: does the information necessarily have to be accurate? For many students, the answer was a confident yes that their university was able to communicate the pandemic information they felt was necessary to stay safe within their college environment on-campus. While off-campus

students in the interviews had a slightly lesser degree of confidence in how their university communicated, returning to campus and once again becoming immersed in the system of institutional power and authority provided them with the opportunity to once again become confident in what their university was trying to communicate with them. Additionally, universities were able to communicate information to students in a more recollective manner through private channels where information was less busy, and the physicality of being on and around a college campus certainly played a role in the overall effectiveness of the medical information permeating into a student's perception of the pandemic. In terms of communicating accurate or ongoing medical information, universities were overall less effective due to declining to continue following the pandemic after the Spring 2022 semester, and often reducing protections and medical precautions before this as well. The information from the first year of the pandemic certainly stuck in students' recollection of their time dealing with the virus, such as masking and social distancing; unfortunately, universities did not continue to update their students with ongoing medical research at a certain point and the information became outdated. Despite the lack of follow-through, students felt confident in their own knowledge on the pandemic and generally believed that their universities did a good job sharing what medical information was relevant to themselves.

Recommendations for Policy and Practice

Where Universities Succeeded

As mentioned previously, the most recollected forms of communication for universities for the pandemic were emails and posters, with social media making up a portion of responses but not superseding the other two as I expected. Respondents were fairly clear in their confidence

in their university's response to the pandemic, broadly seeing it as resolved on their own campuses; in this sense, the university was successful in keeping institution confidence high by their student bodies. However, one significant failure by the three universities was to continue the communication of COVID beyond the end of the Spring 2022 semester, leading to a variety of responses that displayed inaccuracies in ongoing COVID information and a lack of interest in continuing to pursue proper hygienic procedures to prevent the spread of the pandemic.

With this premise in mind, I believe that Florida universities should utilize their position as a figure of authority to communicate with their students the continued and ongoing spread of COVID in the United States, a disease which still impacts a growing number of Americans daily. Additionally, the prevalence of Long COVID among college students and impacted immune systems by the disease has not been discussed in any university literature I was able to access, leading to a potential gap in student knowledge on the effects of not being vaccinated and not taking proper precautionary steps to prevent infection and reinfection. Florida universities displayed an ability to keep student body confidence in themselves high throughout the tumultuous pandemic despite external influences from the state and federal governments; by utilizing their platform once again as paragons of public health for their community, they may be able to prevent the spread of problematic side effects that have been noted and researched to be caused by constant exposure and reinfection by COVID.

I also believe that universities should begin to develop a sustainable framework for smaller clubs and organizations in the event that another catastrophic event forces in-person classes to be moved to virtual once again, particularly when viewing the discontent from interviewees specifically on the subject of community building in the time of COVID.

Developing and organizing a system wherein club leadership and membership can be retained in

virtual settings may also be beneficial to non-traditional and transfer students who are part of such organizations, further emphasizing their connection to their university despite distance and lack of physical connection to the campus.

Conclusion

Upon the conclusion of this dissertation, I recognized that for many students the premise that the pandemic is over is a comforting one; the thought allows you to move on with your life, having viewed the conclusion of the pandemic and the threat to your health and your loved ones as a significant positive. The thought was the light at the end of the tunnel for the pandemic. Unfortunately, the situation has not turned out that way for many individuals, with long COVID, reinfection, and even new viral strains causing significant spikes across the United States at the time of writing this dissertation, with universities across Florida not responding to the surge.

Political neutrality was also a significant topic within this dissertation with its influence on COVID information, with respondents displaying an inconsistent understanding of what the ongoing pandemic is capable of inflicting upon them. Vaccines described as a catch-all, despite the mutagen factor of COVID relating more to a yearly flu than a singular virus like polio, and the hidden nature of COVID as a whole with what it impacts. As discussed in the literature review, polio is a disease that impacts the body in a visual, visceral way; paralysis in children is a horrifying outcome that is apparent and cannot be ignored in such an easy fashion. The effects of COVID on the human body are still being studied, but the status of long COVID and other side effects appear less as a call to action to individuals, and more as another reason to stay blissfully unaware of the consequences of the disease continuing to spread. There is a cognitive dissonance in that, wherein an individual can pat themselves on the back for preventing the spread of the

disease and saving lives in the past through masking and vaccination but go about their daily lives just years later as if the pandemic wasn't still at a high viral load.

Looking at the Future of Pandemics and Health Communication

At the time of writing this dissertation, the H5N1 disease has been identified by the CDC and other world governments as a potential pandemic, with the stipulation that it is “low risk” despite how rapidly it has been mutating and spreading among mammalian populations (CDC, 2024). Many of the same statements are being made on the spread of H5N1 as were on COVID at the beginning of the latter pandemic just years later, and the situation with avian influenza appears to be one that is dramatically growing in size and intensity. With this dissertation in mind, I believe that the next pandemic is certainly out there; whether or not it is H5N1 remains to be seen, but what does appear to be the case is that there is a confidence game to be played when it comes to pandemic education; for institutions with their own communities, maintaining an air of safety and calm helps to alleviate anxiety among populations and return them back to a pre-pandemic or pre-danger way of life. As noted in this research, people are very quick to forget elements of traumatic events like the COVID pandemic, taking information that was provided to them years ago and allowing it to remain stagnant as a way to cope with the uncertainty that such a disease causes. The next pandemic that attacks the population of American universities may not be as flexible in allowing folk to ignore it, and if we do not recalibrate our expectations of what a disease is capable of inflicting upon people, we stand to have pandemic neutrality and a lack of confidence in other sources become our downfall. Universities with their reputation as places of higher learning need to be prepared for the next pandemic, and to continue communicating information with their student bodies even long after the danger appears to pass.

APPENDIX A: IRB EXEMPTION DETERMINATION



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board
FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

October 12, 2023

Dear Matthew Stapleton:

On 10/12/2023, the IRB determined the following submission to be human subjects research that is exempt from regulation:

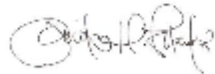
Type of Review:	Initial Study
Title:	A Pandemic in the Educational Sphere: Collecting and Understanding Students' Responses to University Communication on COVID-19
Investigator:	Matthew Stapleton
IRB ID:	STUDY00006006
Funding:	None
Documents Reviewed:	<ul style="list-style-type: none">• HRP-251 - FORM - Faculty Advisor Scientific-Scholarly Review.pdf, Category: Faculty Research Approval;• Study 6006 Email 2 IRB_clarified2.docx, Category: Recruitment Materials;• Study 6006 Email IRB_clarified.docx, Category: Recruitment Materials;• Study 6006 HRP-254 - FORM - Explanation of Research Interview_clarified2.pdf, Category: Consent Form;• Study 6006 HRP-254 - FORM - Explanation of Research Survey_clarified2.pdf, Category: Consent Form;• Study 6006 HRP-255 - FORM - Request for Exemption_clarified2.docx, Category: IRB Protocol;• Study 6006 Interview Questions IRB_clarified2.docx, Category: Survey / Questionnaire;• Study 6006 IRB Survey Questions_clarified2.docx, Category: Survey / Questionnaire;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in is detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB

Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tamiko Fukuda', written in a cursive style.

Tamiko Fukuda
Designated Reviewer

APPENDIX B: SURVEY RECRUITMENT EMAIL FOR DEPARTMENTS

Recruitment Email for Distribution to Students – Analyzing Students’ Responses to University Communication on COVID-19

Dear [University Name and Department],

I am conducting an IRB-approved dissertation research study regarding university communication on COVID-19 to students. I am writing to ask if you feel comfortable doing so, please distribute this survey among students in your department for them to complete in their own time.

https://ucf.qualtrics.com/jfe/form/SV_ezxOO3C9IT9EGXQ

Participation in the online survey should take approximately 5-10 minutes. Students will be required to include their university email and may be emailed following their completion of the survey to participate in an optional interview on the same subject.

If you have any questions, please let me know.

Matthew Stapleton

Email: matthew.stapleton@ucf.edu

Subject Line: IRB Research Study - Analyzing Students' Responses to University Communication on COVID-19

APPENDIX C: EXPLANATION OF RESEARCH FOR SURVEY



UNIVERSITY OF
CENTRAL FLORIDA

EXPLANATION OF RESEARCH

Title of Study: *A Pandemic in the Educational Sphere: Collecting and Understanding Students' Responses to University Communication on COVID-19*

Principal Investigator: Matthew Stapleton, Graduate Student

Faculty Supervisor: Dr. Sonia Stephens, Associate Professor

You are being invited to take part in a research study. Whether you take part is up to you.

The purpose of this research study is to understand the effectiveness of communication from the university you attend and its student body on the COVID-19 pandemic. The forms of communication that may have been utilized include social and physical media. You have been asked to participate in this study because you are an undergraduate or graduate student at one of the following Florida universities: University of Central Florida, University of Florida, University of Southern Florida, or Florida A&M University.

In this survey, you will be asked questions about your experiences as a student at your university during the COVID-19 pandemic, and what you recall about what and how the university communicated with you.

This online Qualtrics survey will take 5-10 minutes to complete. You will be asked to provide your student email address in order to confirm that you are currently a student at one of the aforementioned universities. This email may also be used to contact you to participate in a randomly selected follow-up interview. You do not need to agree to participate in the Zoom interview to complete this portion of the study. You are also not agreeing to participate in the interview by submitting this survey once completed.

Only the investigators will have access to any identifying information provided in this survey, and you will not be identified by name in any reports. All associated information from the survey will be uploaded onto UCF OneDrive, an encrypted and password-protected Cloud storage site. Your identifiable data will be stored separately from de-identified data. All data, including identifiable data, will be kept for five years after this study is completed, and then erased.

Your information or samples that are collected as part of this research will not be used or distributed for future research studies, even if all of your identifiers are removed.

You must be 18 years or older to take part in this research study, able to speak and read English, and a student at the University of Central Florida, University of Florida, University of Southern Florida, or Florida A&M University. You do not need to be a resident of the state of Florida to complete this survey, but you do need to be a resident of the United States.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with your university, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, contact Matthew Stapleton by email at matthew.stapleton@ucf.edu, or Dr. Sonia Stephens at sonia.stephens@ucf.edu.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

UCF HRP-254 Form v.1/31/2023

APPENDIX D: INTERVIEW CANDIDATE EMAIL

Interview Selection Email – Analyzing Students’ Responses to University Communication on COVID-19

Dear [Student Name],

Thank you again for your participation in the COVID-19 Communication Survey you completed a few days ago. I would like to interview you via Zoom about the same subject, which may include questions regarding the answers you provided. This interview will be 10-15 minutes in length, and will be audio and video recorded. Your participation in this interview is entirely voluntary, and you may choose to decline this request.

If you are interested in participating in this interview, please use the following link to indicate your schedule and preferred time slots for joining this interview [link to scheduling website]. Ten minutes prior to your interview, you will be sent a secure Zoom link to join. Please read the attached Explanation of Research document, which explains the study. If you have any questions, please let me know.

Matthew Stapleton

Email: matthew.stapleton@ucf.edu

APPENDIX E: EXPLANATION OF RESEARCH FOR INTERVIEW



UNIVERSITY OF
CENTRAL FLORIDA

EXPLANATION OF RESEARCH

Title of Study: *A Pandemic in the Educational Sphere: Collecting and Understanding Students' Responses to University Communication on COVID-19*

Principal Investigator: Matthew Stapleton, Graduate Student

Faculty Supervisor: Dr. Sonia Stephens, Associate Professor

You are being invited to take part in a research study based on your previous participation in the associated survey. Whether you take part is up to you.

The purpose of this research study is to understand the effectiveness of communication from the university you attend and its student body on the COVID-19 pandemic. The forms of communication that may have been utilized include social and physical media. You have been asked to participate in this study because you are an undergraduate or graduate student at one of the following Florida universities: University of Central Florida, University of Florida, University of Southern Florida, or Florida A&M University. You have been randomly selected to participate in this interview due to your previous completion of the associated survey.

In this interview, you will be asked questions about your experiences as a student at your university during the COVID-19 pandemic, and what you recall about what and how the university communicated with you. You may also be asked to expand on your provided answers in the survey you completed.

This online Zoom interview will take 10-15 minutes to complete.

You will be audio and video recorded during this study. If you do not want to be recorded, you will not be able to be in the study. Please discuss this with the researcher or research team member. If you do agree to be recorded, the recording will be uploaded to a University of Central Florida-associated OneDrive, an encrypted and password-protected Cloud storage site. Only the investigators will have access to any identifying information provided in this survey, and you will not be identified by name in any reports. All associated information from the survey will be uploaded onto OneDrive, an encrypted and password-protected Cloud storage site. All data, including identifiable data, will be kept for five years after this study is completed, and then erased.

Your information or samples that are collected as part of this research will not be used or distributed for future research studies, even if all of your identifiers are removed.

You must be 18 years or older to take part in this research study, able to speak and read English, and a student at the University of Central Florida, University of Florida, University of Southern Florida, or Florida A&M University. You do not need to be a resident of the state of Florida to complete this survey, but you do need to be a resident of the United States.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with your university, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, contact Matthew Stapleton by email at matthew.stapleton@ucf.edu, or Dr. Sonia Stephens at sonia.stephens@ucf.edu.

APPENDIX F: EMAIL REQUESTING CONSENT TO BE RECORDED

Interview Selection Email – Analyzing Students’ Responses to University Communication on COVID-19

Dear [Student Name],

Thank you again for your participation in the COVID-19 Communication Survey you completed a few days ago. I would like to interview you via Zoom about the same subject, which may include questions regarding the answers you provided. This interview will be 10-15 minutes in length, and will be audio and video recorded. Your participation in this interview is entirely voluntary, and you may choose to decline this request.

If you are interested in participating in this interview, please use the following link to indicate your schedule and preferred time slots for joining this interview [link to scheduling website]. Ten minutes prior to your interview, you will be sent a secure Zoom link to join. Please read the attached Explanation of Research document, which explains the study. If you have any questions, please let me know.

Matthew Stapleton
Email: matthew.stapleton@ucf.edu

APPENDIX G: INTERVIEW PREFATORY QUESTIONS

A1. Thank you for agreeing to participate in this interview. As mentioned in the survey you previously completed, this interview is part of a dissertation research study investigating the communication between your university and its students on the subject of the COVID-19 pandemic. I'm talking with you today to learn more about your experiences with your university during the COVID-19 pandemic, and the different ways you believe their communication choices have affected you and your peers.

A2. I'd like you to confirm that you have read the Explanation of Research document that I emailed you when previously scheduling this interview. Have you read this document, and do you agree to its terms?

A3. You will be audio and video recorded during this study. If you do not want to be recorded, you will not be able to be in the study. If you do agree to be recorded, the recording will be uploaded to OneDrive, an encrypted and password-protected Cloud storage site. The recording will be erased after a minimum of five years, after which it will be destroyed. This interview should take 10-15 minutes. Do you have any questions about the interview process before we begin?

Interviewer Statement: Hello, and thank you for agreeing to this interview. We will be discussing COVID-19 on your college campus, and focusing on what information you recall your university sharing with you all. Can you also confirm that you read over the Explanation of Research, and understand it?

LIST OF REFERENCES

- Abrams, E. M., & Greenhawt, M. (2020). Risk communication during COVID-19. *Journal of Allergy and Clinical Immunology*, 8(6), 1791-1794.
- Amidon, T. R., Nielsen, A. C., Pflugfelder, E. H., Richards, D. P., & Stephens, S. H. (2021). Visual risk literacy in “Flatten the Curve” COVID-19 visualizations. *Journal of Business and Technical Communication*, 35(1), 101-109.
- Assefa, M., Willians, W. R., & Stamm, K. (2023). Today’s graduate students are racially and ethnically diverse: Racial diversity varied across both subfields and degree levels. *American Psychological Association*, 54(5), 23.
- Arradondo, B. (2021). USF plans full return to in-person classes; other schools may follow suit. *FOX 13 News*. Fox 13 Tampa Bay.
- Auxier, B., & Anderson, M. (2021). Social media use in 2021. *Pew Research Center*.
- Ayedoye-Olatunde, O. A., & Olenik, N. (2021). Research and scholarly methods: Semi-structured interviews. *Department of Pharmacy Practice Faculty Publications*, 6.
- Bartsch, S. M., O’Shea, K. J., Chin, K. L., Strych, U., Ferguson, M. C., Bottazzi, M. E., ... & Lee, B. Y. (2022). Maintaining face mask use before and after achieving different COVID-19 vaccination coverage levels: a modeling study. *The Lancet Public Health*, 7(4), 356-365.
- Batova, T. (2021). “Picturing” xenophobia: Visual framing of masks during COVID-19 and its implications for advocacy in technical communication. *Journal of Business and Technical Communication*, 35(1), 50-56.

- Berry, G., Parsons, A., Morgan, M., Rickert, J., & Cho, H. (2022). A review of methods to reduce the probability of airborne spread of COVID-19 in ventilation systems and enclosed spaces. *Environmental Research*, 203, 111765.
- Bountouridis, D., Marrero, M., Tintarev, N., & Hauff, C. (2018). Explaining credibility in news articles using cross-referencing. In *SIGIR workshop on Explainable Recommendation and Search (EARS)*, 1-4.
- Byrnes, K. G., Kiely, P. A., Dunne, C. P., McDermott, K. W., & Coffey, J. C. (2020). Communication, collaboration, and contagion: “Virtualization” of anatomy during COVID-19. *Clinical Anatomy*, 34(1), 82-89.
- Cai, Q., LeBouef, S., Savage, M., & Dworkin, J. (2022). What happened when COVID-19 shut down in-person higher education? Parents speak out. *About Campus: Enriching the Student Learning Experience*, 26(6), 26-34.
- Cartwright, A., & Johnson, M. D. (2021). UCF’s return to normal operations: Starting June 23, UCF will begin operating more aligned with the way we did before the pandemic. *UCFToday Colleges & Campus*. University of Central Florida.
- CDC. (2024). H5N1 Bird Flu: Current Situation. *CDC.gov Avian Influenza (Bird Flu)*.
- City of New York. (2020). New York City to close all school buildings and transition to remote learning. *NYC.gov*.
- Clark, T. (1954) Polio drive closes: Goal exceeded. *The Register*, 419(4), p. 1-8.
- Dailey, R. (2021). Florida university leaders say their ‘hands are tied’ and they cannot mandate masks. *Orlando Weekly*.
- Davis, J. (2021). Biden signs transportation mask mandate, but USDOT must actually implement it. *Eno Center Weekly*. Eno Center for Transportation.

- Dickerson, C. (2020). 'My world is shattering': Foreign students stranded by coronavirus. *New York Times*.
- Doan, S. (2021). Misrepresenting COVID-19: Lying with charts during the second golden age of data design. *Journal of Business and Technical Communication*, 35(1), 73-79.
- Dror, A. A., Eisenbach, N., Taiber, S., Morozov, N. G., Mizrachi, M., Zigran, A., ... & Sela, E. (2020). Vaccine hesitancy: the next challenge in the fight against COVID-19. *European Journal of Epidemiology*, 35(8), 775-779.
- Evirgen, O., Savas, N., Motor, V. K., Onlen, Y., & Yengil, E. (2014). An evaluation of knowledge, attitudes, and behaviors of employees of a university hospital in an H1N1 influenza pandemic. *The Journal of Infection in Developing Countries*, 8(5), 561-569.
- Fordham, E. (2020). Which universities will be online in the fall? Many students can expect remote classes in the fall even if they're living on campus. *Fox Business*.
- Forman-Katz, N. (2023). Americans are following the news less closely than they used to. *Pew Research Center*.
- Foubert, J. D., & Grainger, L. U. (2006). Effects of involvement in clubs and organizations on psychological development of first-year and senior college students. *NASPA Journal*, 43(1), 166-182.
- Frith, J. (2021). Introduction to Business and Technical Communication and COVID-19: Communicating in Times of Crisis. *Journal of Business and Technical Communication*, 35(1), 1-6.
- Fujimura, S. F. (2003). Purple death: The great flu of 1918. *PAHO's Perspectives in Health*, 8(3).
- Gaffney, R. (2021). FAMU to Open COVID-19 Vaccine Distribution Site. *Health News Florida WFSU*.

- Graham, S. S. (2021). Misinformation inoculation and literacy support Tweetorials on COVID-19. *Journal of Business and Technical Communication*, 35(1), 7-14.
- Goings, A. (2022). Doctor reacts to UF's partnership with Gov. DeSantis investigation on COVID-19 vaccines. *WCJB 20 on ABC*.
- Gray, L. A., & Saracino, M. (1989). AIDS on campus: A preliminary study of college students' knowledge and behaviors. *Journal of Counseling and Development*, 68(2), 199-203.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2014). Introduction to applied thematic analysis. *Applied Thematic Analysis*, 1-21. SAGE.
- Hopfer, S. (2011). Effects of a narrative HPV vaccination intervention aimed at reaching college women: A randomized controlled trial. *Prevention Science* 13, 173-182.
- Huang, C., Yang, L., Pan, J., Xu, X., & Peng, R. (2021). Correlation between vaccine coverage and the COVID-19 pandemic throughout the world: Based on real data. *Journal of Medical Virology*, 94(5), 2181-2187.
- Ivankova, N. V., & Creswell, J. W. (2009). Mixed methods. *Qualitative Research in Applied Linguistics: A Practical Introduction*, 135-164.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396-403.
- Kan, F. P., Raoofi, S., Rafiei, S., Hosseinifard, H., Tajik, F., Raoofi, N., Ahmadi, S., Aghalou, S., Torabi, F., Dehnad, A., Rezaei, S., Hosseinipalangi, Z., & Ghashghaee, A., (2021). A systematic review of the prevalence of anxiety among the general population during the COVID-19 pandemic. *Journal of Affective Disorders*, 293, 391-398.
- Koerber, A. (2021). Is it fake news or is it open science? Science communication in the COVID-19 pandemic. *Journal of Business and Technical Communication*, 35(1), 22-27.

- Kost, R. G., & da Rosa, J. C. (2018). Impact of survey length and compensation on validity, reliability, and sample characteristics for ultrashort-, short-, and long-research participant perception surveys. *Journal of Clinical and Translational Science*, 2, 31-37.
- Krosnick, J. A., & Presser, S. (2010). Questionnaire design. *The Palgrave Handbook of Survey Research*, 263-313.
- Kumar, D. (2021). At University of Florida, a rise in face-to-face classes prompts pushback: The in-person college experience is back by popular demand. But faculty, local residents and some students are sounding alarms. *News/The Education Gradebook*. Tampa Bay Times.
- Lambrecht, K. (2021). Tracking the differentiation of risk: The impact of subject framing in CDC communication regarding COVID-19. *Journal of Business and Technical Communication* 35(1), 94-100.
- Ledda, C., Constantino, C., Cuccia, M., Maltezou, H. C., & Rapisarda, V. (2021). Attitudes of Healthcare Personnel towards Vaccinations before and during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 18, 1-12.
- Lewis, J. E., Malow, R. M., & Ireland, S. J. (1997). HIV/AIDS risk in heterosexual college students: A review of a decade of literature. *Journal of American College Health*, 45(4), 147-158.
- Liptak, K., Brown, P., & Westwood, S. (2020). The mask decision that will haunt Trump's reelection bid. *CNN Politics*. CNN.
- Malecki, K. M. C., Keating, J. A., & Safdar, N. (2020). Crisis communication and public perception of COVID-19 risk in the era of social media. *Clinic of Infectious Diseases*, 72(4), 697-702.

- Mason, J. (2002). Linking qualitative and quantitative data analysis. In *Analyzing Qualitative Data*, (pp. 89-110). Routledge.
- Matat, S. (2021). UF does 180-degree turn, says classes will be in person, as scheduled. *News/Campus*. The Gainesville Sun.
- May, E. M., Hunter, B. A., & Jason, L. A. (2016). Methodological pluralism and mixed methodology to strengthen community psychology research: An example from Oxford House. *Journal of Community Psychology*, 45(1), 100-116.
- McFall-Johnsen, M. (2020, July 6). Harvard is keeping classes online this fall, placing it among the 8% of US colleges planning to do so. Here's the list so far. *Business Insider*.
- Messaris, P. (2009). What's visual about "visual rhetoric?" *Quarterly Journal of Speech*, 95(2), 210-223.
- Miller, K. (2023). New poll finds only 12% of Americans typically wear a mask in public. *Yahoo!Life*.
- Moder, K. (2010). Alternatives to *F*-test in one way ANOVA in case of heterogeneity of variances (a simulation study). *Psychological Test and Assessment Modeling*, 52(4), 343-353.
- Monto, A. S. (1999). Francis Field trial of inactivated poliomyelitis vaccine: Background and lessons for today. *Epidemiological Reviews*, 21(1), p. 7-23.
- Mossa-Basha, M., Medverd, J., Linnau, K. F., Lynch, J. B., Wener, M. H., Kicska, G., Staiger, T., & Sahani, D. V. (2020). Policies and guidelines for COVID-19 preparedness: Experiences from the University of Washington. *Radiological Society of North America*, 296(2), 26-31.

- Mueller, A. M., Goh, C., Lim, L. Z., & Gao, X. (2021). COVID-19 emergency eLearning and beyond: Experiences and perspectives of university educators. *Education Sciences*, 11(19), 1-15.
- Mukherjee, S. & Weikhum, G. (2015). Leveraging joint interactions for credibility analysis in news communities. In *Proceedings of the 24th ACM International on Conference on Information and Knowledge Management*.
- Narayan, Y., Chatterjee, S., Agrawal, A., & Bhardwaj, R. (2023). Effectiveness of N95 mask in preventing COVID-19 transmission. *Transnational Indian National Academy of Engineering*, 8(2), 253-262.
- Nathanson, N., & Kew, O. M. (2010). From emergence to eradication: The epidemiology of poliomyelitis deconstructed. *American Journal of Epidemiology*, 172(11), 1213-1229.
- National Survey of Student Engagement (2021). Engagement insights: Survey findings on the quality of undergraduate education. *NSSE: National Survey of Student Engagement Annual Results 2021*.
- Nehamas, N., & LaFraniere, S. (2023). DeSantis leans into vaccine skepticism to energize struggling campaign. *The New York Times*.
- Nichol, K. L., Tummers, K., Hoyer-Leitzel, A., Marsh, J., Moynihan, M., & McKelvey, S. (2010). Modeling seasonal influenza outbreak in a closed college campus: Impact of pre-season vaccination, in-season vaccination and holidays/breaks. *Plos One* 5(3), e9548.
- Opt, S. K., & Loffredo, D. A. (2004). College students and HIV/AIDS: More insights on knowledge, testing, and sexual practices. *The Journal of Psychology*, 138(5), 389-403.
- Ortiz-Sánchez, E., Velando-Soriano, A., Pradas-Hernández, L., Vargas-Román, K., Gómez-Urquiza, J. L., Cañadas-De la Fuente, G. A., & Albendín-García, L. (2020). Analysis of

- the anti-vaccine movement in social networks: A systematic review. *International Journal of Environmental Research and Public Health*, 17(5394), 1-11.
- Pickett, A. (2021). Florida governor signs sweeping laws against vaccine, mask mandates. *Courthouse News Service*.
- Pingali, C., Yankey, D., Elam-Evans, L. D., Markowitz, L. E., Williams, C. L., Fredua, B., McNamara, L. A., Stokley, S., & Singleton, J. A. (2021). National, regional, state, and selected local area vaccination coverage among adolescents aged 13-17 years – United States, 2020. *Center for Disease Control Weekly* 70(35), 1183-1190.
- Ratanasiripong, N. T. (2012). A review of human papillomavirus (HPV) infection and HPV vaccine: Related attitudes and sexual behaviors among college-aged women in the United States. *Journal of American College Health* 60(6), 461-470.
- Rai, S. (2021). University of Florida researchers pressured to destroy COVID-19 data, told not to criticize DeSantis: report. *The Hill*.
- Rosenblum, H., Segaloff, H., Cole, D., Christine, C. C., Currie, D. W., Abedi, G. R., ...& Tate, J. E. (2021). Behaviors and attitudes of college students during an academic semester at two Wisconsin universities during the COVID-19 pandemic. *Journal of American College Health*, 1-8.
- Ruslin, Mashuri, S., Rasak, M. S. A., Alhabsyi, F., & Syam, H. (2022). Semi-structured interview: A methodological reflection of the development of a qualitative research instrument in educational studies. *IOSR Journal of Research & Method in Education*, 12(1), 22-29.
- Ruxton, G. D. (2006). The unequal variance *t*-test is an underused alternative to student's *t*-test and the Mann-Whitney *U*-test. *Behavior Ecology*, 688-690.

- Saad, L. (2023). At Year Three, Americans Split on Whether Pandemic is Over. *Gallup News*.
- Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus*, 12(4).
- Scwartz, J. L. (2018). The Spanish Flu, epidemics, and the turn to biomedical responses. *American Journal of Public Health*, 108(11).
- Serino, L., Meleleo, C., Maurici, M., Bagnato, B., Sorbara, D., Zaratti, L., & Franco, E. (2011). Knowledge and worry as basis for different behaviors among university students: the case of pandemic flu H1N1. *J prev med hyg*, 52(3), 144-147.
- Shackleton, S., Bezerra, J. C., Cockburn, J., Reed, M. G., & Abu, R. (2021). Interviews and surveys. In *The Routledge Handbook of Research Methods for Socio-Ecological Systems*, 107-118. Routledge.
- Shannon-Baker, P. (2015). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 1-16.
- Singh, P., Sinha, R., Koay, W. L., Teoh, K. B., Nayak, P., Lim, C. H., Dubey, A. K., Das, A., Faturrahman, I., & Aryani, D. N. (2021). A comparative study on effectiveness of online and offline learning in higher education. *International Journal of Tourism and Hospitality in Asia Pasific*, 4(3), 102-144.
- Slovic, P., & Peters, E. (2006). Risk perception and affect.” *Current Directions in Psychological Science* 15(6), 322-325.
- St. Amant, K. (2021). Creating scripts for crisis communication: COVID-19 and beyond. *Journal of Business and Technical Communication*, 35(1), 126-133.

- Taliaferro, T., Layson-Wolf, C., Seung, H., Banjo, O., & Tran, D. (2021). Impact of pharmacist-led program on knowledge of college students about pre-exposure prophylaxis. *Journal of the American Pharmacists Association*, 61(2), 206-212.
- Taylor, D. B. (2021). A Timeline of the Coronavirus Pandemic, *The New York Times*. Retrieved 18 March 2024 from <https://www.nytimes.com/article/coronavirus-timeline.html>.
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE Handbook of Qualitative Research in Psychology*, 2(17-37).
- The Feed (2024). Student groups withered during COVID. Reviving them hasn't been easy. *The Feed*. Georgetown University.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246.
- Thomas, J. W., & Foster, H. A. (2020). History of education in the news: Higher education institutions respond to epidemics. *History of Education Quarterly*, 60(2), p. 185-201.
- Tin, A. (2024). CDC shortens 5-day COVID isolation, updates guidance on masks and testing in new 2024 recommendations. *CBS News*.
- Trump White House. (2020). Proclamation on declaring a national emergency concerning the novel coronavirus disease (COVID-19) outbreak. *Archives.gov*.
- Turner, C. & Reeser, M. (2021). UCF students return to in-person classes for the 1st time in almost a year. *Local News*. WFTV9.
- USF Newsroom (2021). USF community demonstrates critical leadership in year-long response to COVID-19. *USF Newsroom*. University of South Florida.
- USF Newsroom. (2021). USF preparing for a full return to in-person courses and on-campus activities in fall 2021. *USF Newsroom*. University of South Florida.

- Van, D., McLaws, M., Crimmins, J., Macintyre, C. R., & Seale, H. (2010). University life and pandemic influenza: Attitudes and intended behavior of staff and students towards pandemic (H1N1) 2009. *BMC Public Health*, 10(130), p. 1-9.
- Vankar, P. (2023). Share of population in the U.S. vaccinated against COVID-19, Apr. 26, 2023, by state. *Statistica.com*.
- Villa, F. G., Litago, J. D. U., & Sánchez-Fdez, A. (2020). Perceptions and expectations in the university students from adaptation to virtual teaching triggered by the COVID-19 pandemic. *Revista Latina de Comunicacion Social*, 78, p. 65-85.
- Weissert, W. (2020). Biden vows to reopen most schools after 1st 100 days on job. *Associated Press*.
- White, C., Kolble, R., Carlson, R., & Lipson, N. (2005). The impact of a health campaign on hand hygiene and upper respiratory illness among college students living in residence halls. *Journal of American College Health*, 53(4), 175-181.
- Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review*, 15(1), 45-55.
- Wittenberg, E., Goldsmith, J. V., Chen, C., Prince-Paul, M., & Johnson R. R. (2021). Opportunities to improve COVID-19 provider communication resources: A systematic review. *Patient Education and Counseling*, 104(3), 438-451.
- Worobey, M. (2021). Dissecting the early COVID-19 cases in Wuhan. *Science*, 374(6572), 1202-1204.
- World Health Organization. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19. *World Health Organization*.

Yakusheva, O., van den Broek-Altenburg, E., Brekke, G., & Atherly, A. (2022). Lives saved and lost in the first six months of the US COVID-19 pandemic: A retrospective cost-benefit analysis. *Plos one*, 17(1), e0261759.