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PUBLICATIONS

Peer-reviewed Publications

1. Silverman, H., **Edwards, H.**, Shamoo, A., & Matar, A. (2013). Enhancing research ethics capacity in the Middle East: Experience and challenges of a Fogarty-sponsored training program. *Journal of Empirical Research on Human Research Ethics : JERHRE*, 8(5), 40–51. <https://doi.org/10.1525/jer.2013.8.5.40>
2. **Edwards, H. A.**, Hifnawy, T., & Silverman, H. (2015). Enhancing research ethics review systems in Egypt: The focus of an international training program informed by an ecological developmental approach to enhancing research ethics capacity. *Developing World Bioethics*, 15(3), 199–207. <https://doi.org/10.1111/dewb.12062>
3. Hifnawy, T., Kobrosly, S., **Edwards, H.**, Anwar, M., Zahran, D., & Silverman, H. (2017). Patients' attitudes and perceptions regarding research and their rights: A pilot survey study from the Middle East. *Eastern Mediterranean Health Journal = La Revue De Sante De La Mediterranee Orientale = Al-Majallah Al-Sihhiyah Li-Sharq Al-Mutawassit*, 23(7), 461–468. <https://doi.org/10.26719/2017.23.7.461>
4. Felaefel, M., Salem, M., Jaafar, R., Jassim, G., **Edwards, H.**, Rashid-Doubell, F., Yousri, R., Ali, N. M., & Silverman, H. (2018). A cross-sectional survey study to assess prevalence and attitudes regarding research misconduct among investigators in the Middle East. *Journal of Academic Ethics*, 16(1), 71–87. <https://doi.org/10.1007/s10805-017-9295-9>
5. Mullins, C. D., Wingate, L. T., **Edwards, H. A.**, Tofade, T., & Wutoh, A. (2018). Transitioning from learning healthcare systems to learning health care communities. *Journal of Comparative Effectiveness Research*, 7(6). <https://doi.org/10.2217/cer-2017-0105>
6. **Edwards, H. A.**, Monroe, D. Y., & Daniel Mullins, C. (2020). Six ways to foster community-engaged research during times of societal crises. In *Journal of Comparative Effectiveness Research* (Vol. 9, Issue 16, pp. 1101–1104). Future Medicine Ltd. <https://doi.org/10.2217/cer-2020-0206>

7. **Edwards, H. A.**, Huang, J., Jansky, L., & Mullins, C. D. (2021). What works when: Mapping patient and stakeholder engagement methods along the ten-step continuum framework. *Journal of Comparative Effectiveness Research*. <https://doi.org/10.2217/ce-2021-0043>
8. Abdelwadoud, M., Collen, J., **Edwards, H.**, Mullins, C. D., Jobe, S. L., Labra, C., Capaldi, V. F., Assefa, S. Z., Williams, S. G., Drake, C. L., Albrecht, J. S., Manber, R., Mahoney, A., Bevan, J., Grandner, M. A., & Wickwire, E. M. (2021). Engaging stakeholders to optimize sleep disorders' management in the U.S. military: A qualitative analysis. *Military Medicine*, *usab341*. <https://doi.org/10.1093/milmed/usab341>
9. Wickwire, E. M., Abdelwadoud, M., Collen, J., **Edwards, H.**, Labra, C., Capaldi, V. F., Williams, S. G., Manber, R., Assefa, S. Z., Drake, C. L., Albrecht, J. S., Bevan, J., Mahoney, A., Tatum, E. D., Pierre, E., Mantua, J., Grandner, M. A., & Mullins, C. D. (2022). Active duty service members, primary managers, and administrators' perspectives on a novel sleep telehealth management platform in the U.S. military healthcare system. *Military Medicine*, *187*(9–10), e1201–e1208. <https://doi.org/10.1093/milmed/usac006>
10. Medeiros, M., **Edwards, H. A.**, & Baquet, C. R. (2023). Research in the USA on COVID-19's long-term effects: Measures needed to ensure Black, Indigenous and Latinx communities are not left behind. *Journal of Medical Ethics*, *49*(2), 87–91. <https://doi.org/10.1136/medethics-2021-107436>

Non-peer-reviewed Publications

1. Medeiros, M., **Edwards, H.**, & Baquet, C. (2021). Research on COVID-19's long term effects: Ensuring Black, Indigenous and Latinx communities are not left behind. *Journal of Medical Ethics Blog*. <https://blogs.bmj.com/medical-ethics/2021/01/26/research-on-covid-19s-long-term-effects-ensuring-black-indigenous-and-latinx-communities-are-not-left-behind/>
2. Vandigo, J., & **Edwards, H.** (2023, August 4). A patient's perspective: How CMS can advance – or impede – patient-centered decision-making in its new drug pricing program. *RealClear Health*. https://www.realclearhealth.com/blog/2023/08/04/a_patients_perspective_970895.html
3. Oehrlein, E. M., **Edwards, H. A.**, Howarth, T. J., & Vandigo, J. (2023, November 1). Listening sessions can help CMS become more patient-centered. Here's how the sessions could be more effective. *Health Affairs Forefront*. <https://doi.org/10.1377/forefront.20231031.623114>

Abstracts

Posters

1. **Edwards, H.**, Mullins, C.D. (2018). 10-Step: Mapping and resourcing patient and stakeholder engagement in PCOR. *AcademyHealth Annual Research Meeting*: Seattle, WA.
2. **Edwards, H.A.**, Huang, J., Jansky, L., & Mullins, C.D. (2018). What works when: Methods for authentic and continuous stakeholder engagement in research. *PCORI Annual Meeting*: Washington, DC.
3. Abdelwadoud, M., **Edwards, H.**, Jobe, S., Collen, J., Capaldi, V...& Wickwire, E. (2020). Active duty members' opinions and recommendations for a new tele-sleep management platform in the United States military treatment facilities. *AcademyHealth Annual Research Meeting*: Virtual.

4. **Edwards, H.A.**, Howarth, T.J., Gutierrez, B., Parks, E., & Mullins, C.D. (2023). The PATIENTS Professors Academy: Advancing health equity by teaching the 10-step framework for continuous patient and stakeholder engagement in research. *AcademyHealth 16th Annual Conference on the Science of Dissemination and Implementation*: Washington, DC.

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2. Lilly, F.W. & **Edwards, H.A.** (2011). The flourishing graduate student: Advancing wellness and academic-life balance at graduate and professional institutions. American College Personnel Association Annual Conference: Baltimore, MD.
3. Lilly, F.W. & **Edwards, H.A.** (2011). The role of academic-life balance in the promotion of wellness to graduate and professional students. American College Health Association Annual Convention: Phoenix, AZ.
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7. **Edwards, H.A.** & Levi, D. (2013). Wellness coaching for student success. National Association of Student Personnel Administrators Annual Meeting: Orlando, FL.
8. **Edwards, H.A.** (2013). Coaching for student success: A case study from the University of Maryland. Building Healthy Academic Communities National Summit: Columbus, OH.
9. **Edwards, H.A.** & Pearce, M. (2013). The role of coaching in student success. American College Health Association Annual Conference: Boston, MA.
10. **Edwards, H.A.**, Hifnawy, T., & Silverman, H.J. (2013). Enhancing research ethics review systems in Egypt: The focus of an international training program informed by a developmental systems approach to enhancing research ethics capacity. Public Responsibility in Medicine and Research Advancing Ethical Research Conference: Boston, MA.
11. **Edwards, H.A.** & Crockett, B. (2014). From survive to thrive: How to implement effective programming for graduate and professional students. National Association of Student Personnel Administrators Annual Conference: Baltimore, MD.
12. Hifnawy, T., **Edwards, H.A.**, Anwar, M.M., Yahia, D., Zahran, D., & Silverman, H.J. (2014). Knowledge and perceptions of adults from the Middle East regarding their rights as participants in research. Public Responsibility in Medicine and Research Advancing Ethical Research Conference: Baltimore, MD.
13. Felaefel, M., **Edwards, H.A.**, Salem, M., Jaafar, R., Jassim, G...& Silverman, H. (2015). Attitudes towards and prevalence of research misconduct among investigators in Egypt. Public Responsibility in Medicine and Research Advancing Ethical Research Conference: Boston, MA.
14. **Edwards, H.**, Lance, F., & Mullins, C.D. (2017). Creating an infrastructure to support patient engagement: University of Maryland, Baltimore. American Public Health Association Annual Meeting & Expo: Atlanta, GA.

15. **Edwards, H.** & Robinson-Shaneman, B.J. (2018). 10-Step: Mapping and resourcing patient and stakeholder engagement. The 8th International Conference on Patient- and Family-Centered Care: Promoting Health Equity and Reducing Disparities: Baltimore, MD.
16. Natafqi, N., **Edwards, H.**, Close, S., Brasher, S., Harte, R., & Bergman, A. (2018). Identifying and addressing health disparities and why patients are underserved. AcademyHealth Annual Research Meeting: Seattle, WA.
17. **Edwards, H. A.**, Huang, J., Jansky, L., & Mullins, C. D. (2018). What works when: Methods for authentic and continuous stakeholder engagement in research. AcademyHealth 11th Annual Conference on the Science of Dissemination and Implementation: Washington, DC.
18. **Edwards, H.A.** (2022). Impacts of COVID-19 on the delivery of health professional training: A narrative literature review. American Educational Research Association Annual Meeting: San Diego, CA.
19. Vandigo, J.V., **Edwards, H.A.**, Flanagan, J., & LaMarca, N. (2024). Patient engagement in health care policy decision making: An example using the CMS Drug Price Negotiation Program. ACCESS 2024 International Annual Meeting & Expo: Miami, FL.

Invited Presentations

1. McQueen, B., Slejko, J., **Edwards, H.A.**, Zempenyl, A., Harrosseau, J.L., & Faiman, B. (2024). Market access workshop for Multiple Myeloma. International Myeloma Foundation Beyond Myeloma Barriers Meeting: Lugano, Switzerland.

Abstract

Title of Dissertation: Navigating the Unprecedented: A Study on How Senior Administrators in Higher Education Learned and Made Decisions During the COVID-19 Pandemic

Hillary A. Edwards, Doctor of Philosophy, 2024

Dissertation Directed by: Violet A. Kulo, EdD, MS, MA, Associate Professor, Program Director,
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The purpose of this qualitative multi-case research study was to explore how senior administrators at four higher education institutions learned and made decisions during the first two years of the COVID-19 pandemic. Bandura's social cognitive theory guided this study as it addressed how people learn enactively and vicariously as well as the triadic reciprocal causation between environmental, personal, and behavioral factors. The study included 13 senior administrators and data were collected through semi-structured interviews. The data analysis followed Creswell and Guetterman's six-step process for analyzing and interpreting qualitative data. Data analysis involved both inductive and deductive coding and categorizing codes into sub-themes and themes. Trustworthiness was ensured through researcher reflexivity, peer debriefing, member checking, and thick description. All participants engaged in some form of observational learning, predominantly from within their own institution or across the university system. Perceived self-efficacy had a significant influence on leadership learning and decision-making. Participants shared their values of teamwork and collaboration and consistent communication in service to keeping their communities safe and continuing their institutional educational missions. The results of this study demonstrated the importance of observational learning on how leaders learned during the COVID-19 crisis, as well as the importance of self-efficacy including coping efficacy and its influence on a leader's confidence, flexibility, and

resolution during times of significant and rapid change. Practical implications include recommendations for crisis management planning, teambuilding, and communications strategies to improve academic leadership self-efficacy.

Navigating the Unprecedented: A Study on How Senior Administrators in Higher Education
Learned and Made Decisions During the COVID-19 Pandemic

by
Hillary A. Edwards

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, Baltimore in partial fulfillment
of the requirements for the degree of
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CHAPTER ONE: INTRODUCTION

Background

In December 2019, the China National Health Commission was notified of a cluster of pneumonia cases of unknown origin in Wuhan, Hubei province, China (Wang et al., 2020). By the end of January 2020, 32 provinces, municipalities, and special regions in China, including Hong Kong, Macau, and Taiwan, reported similar cases of pneumonia, which was then identified and characterized as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), or novel coronavirus (COVID-19) (Carvalho et al., 2021; Wang et al., 2020). Soon after, by March 1, 2020, more than 60 confirmed cases had been identified in the United States Centers for Disease Control and Prevention, 2023). On March 11, 2020, after more than 118,000 confirmed cases across 114 countries and approximately 4,300 deaths, the World Health Organization (WHO) officially declared COVID-19 a pandemic (Centers for Disease Control and Prevention, 2023; World Health Organization, 2020).

COVID-19 was a multimodal crisis for higher education. It was first a public health crisis, whereby, higher education leadership prioritized the safety, health, and wellness of faculty, staff, students, and the local communities the institutions served. Universities canceled events, moved faculty, staff, and students off campus, and shifted face-to-face classrooms to online settings (Aristovnik et al., 2020; Boodman et al., 2020; Khan, 2021; Kruse et al., 2020; McNamara, 2021). Second, it was an academic and student affairs crisis, as education programs were curtailed and students experienced reduced course work, delayed graduation, and/or lost jobs (Aucejo et al., 2020; de Boer, 2021; Koch, 2020). Higher education leadership had to make decisions on whether university related activities would remain virtual for fall 2020 and spring 2021, or whether activities would return to an in-person format, and if so when would this occur

(Collier et al., 2020, 2022; Felson & Adamczyk, 2021; Tobin et al., 2021; Whatley & Castiello-Gutiérrez, 2022). Third, COVID-19 was an operational crisis for higher education institutions, as administrators had to address rapidly evolving needs, evaluate budgets, and mitigate deficits to repurpose or reallocate resources (Bill & Melinda Gates Foundation & Lumina Foundation, 2020; Burch et al., 2022; Felson & Adamczyk, 2021; Gansemer-Topf, 2022; Kruse et al., 2020; Whittaker & Montgomery, 2022).

As policies continued to evolve and new data were collected, leaders needed to adopt forward-thinking mindsets and anticipate future challenges, changes, or opportunities brought about by the pandemic. Under routine circumstances, effective school leadership is essentially about “positioning the school for the future, and about supporting and empowering staff and students in the pursuit of teaching and learning excellence” (L. Smith & Riley, 2012, p. 57). In crisis situations; however, leaders are expected to sensitively navigate immediate events, emotions, and consequences to minimize harm to the institution and community (L. Smith & Riley, 2012). During the pandemic, leaders needed to learn and make decisions quickly (Calonge et al., 2021; C. Chen et al., 2022; Fernandez & Shaw, 2020a; Islam et al., 2022; Liu et al., 2022; McNaughtan et al., 2022), based on frequently changing data, guidance, and policy.

Evidence of the specific challenges faced by leaders in education from K-12 to higher education is emerging. A systematic literature review identified 42 studies that provided empirical evidence and explicitly reported the challenges faced by K-12 school principals to deal with the disruptions caused by the COVID-19 pandemic on an instructional and organizational level (Chatzipanagiotou & Katsarou, 2023). These studies outlined three main categories of challenges faced: 1) logistical challenges due to lack of infrastructure, equipment, funding and efficient planning; 2) academic challenges associated with supporting staff members and learners

– cognitively and emotionally - in the transition to emergency and remote learning; and 3) organizational challenges related to obstacles ensuring and safeguarding the physical and psychological safety of school and community stakeholders (Chatzipanagiotou & Katsarou, 2023). Other studies outlined the personal leadership resources (PLRs) needed in times of crisis, including: 1) cognitive resources, such as specific knowledge on problem-solving, systems thinking, and domain-specific knowledge; 2) social resources, such as communication, perception and management of emotions, and acting in an emotionally appropriate way; and 3) psychological resources, such as optimism, self-efficacy, resilience, and proactivity (Brion & Kiral, 2021; Ramos-Pla et al., 2021). While these two studies focused on senior administrators in K-12 education, similar results were found in studies of higher education leaders, including prioritization of communication strategies, top-down versus shared leadership, emotional reassurance, reallocation of funds, and accepting responsibility (Bebbington, 2021; O’Shea et al., 2022; D. Smith, 2022). Little has been published; however, on the intentional reflection, learning, and decision-making of higher education leaders during the pandemic, to improve leadership development and crisis management for the future.

According to Alexander et al. (2009, p. 186), “learning is a multidimensional process that results in a relatively enduring change in a person or persons, and consequently how that person or persons will perceive the world and reciprocally respond to its affordances physically, psychologically, and socially.” Learning, in this study, refers to the processes senior administrators used to understand and respond to the COVID-19 crisis in their leadership capacity. Understanding how leaders enactively or vicariously learned and made decisions – including the exploration of forethought, self-reactiveness, and self-reflection can elucidate evidence-based strategies and tools for leadership development and crisis management.

Theoretical Context

The theoretical framework supporting this study is Bandura's (1986, 1988, 2023) social cognitive theory. This theory posits that human learning occurs either enactively (by doing) or vicariously by observing social models in order to learn rules, skills, strategies, values, and attitudes (Bandura, 1986, 1988). While modeling facilitates the development of skills, self-efficacy facilitates behavior and decision-making. Self-efficacy is an individual's beliefs about their own capabilities to exercise control over challenges they face (Bandura, 2023). People may avoid tasks they believe exceed their capabilities and pursue tasks they believe are within their capabilities. Social cognitive theory is an appropriate theoretical framework for this study because self-efficacy is a core component of learning and decision-making. Research has shown that leaders who viewed a problem as a crisis – versus a challenge - were less willing to seek new information or to incorporate different ideas into decision-making and may even remain vigilant to past courses of action (Tjosvold, 1984). For leaders who view a crisis as a challenge, however, research has shown that self-efficacy facilitates a manager's belief that they have the time and resources to solve the problem, they can be open-minded, and assess information and alternatives in a rigorous manner (Tjosvold, 1984).

Statement of the Problem

Three years into the COVID-19 crisis, senior administrators in higher education continue to respond to challenges that arose from the pandemic and its long-term impact on their institutions. Current literature addresses crisis communication approaches (Calonge et al., 2021; McNaughtan et al., 2022), and how institutions formed crisis management teams responsible for decision-making, such as the implementation of safety measures, the reallocation of resources, and communications for closures, instructional shifts, and reassurances to “attend to the

emotional needs of their stakeholders” (O’Shea et al., 2022, p. 643). While existing literature explores crisis communication and management strategies during the pandemic, there is a notable gap in understanding how these leaders learned, adapted, and made critical decisions amidst this unprecedented crisis. Particularly, the role of learning in how leaders led and enhancing institutional resilience in higher education settings remains largely unexplored. This gap raises the question: How did learning influence decision-making and how higher education leaders led during the COVID-19 crisis?

Commentaries on higher education leadership during the COVID-19 pandemic emphasize changes to institutional management, such as shifts from top-down management to shared leadership and collaborative teams (Calcado et al., 2022; Menon & Motala, 2021; D. Smith, 2022; Zheng et al., 2020), centering on values and ethical principles (Liu et al., 2022; Simpkins, 2020). Longitudinal outcomes are just beginning to be evaluated and may look very different per institution, based on how administrators evaluated and made decisions for evolving policy, data, and communicating stakeholder needs. This study aims to elucidate the mechanisms of decision-making under crisis conditions for higher education senior administrators, the role of learning in this process, and the subsequent implications for leadership development and institutional resilience. Understanding these dynamics may provide crucial insights for enhancing crisis management in higher education institutions, thereby promoting capacity for resilience in the face of future unforeseen challenges.

Predicting the unpredictable requires making sense of new, rapidly changing information. When humans encounter new information, they encounter change. Change is a central principle in learning and can occur “over infinite scales of time; it can occur in an instant or transpire over expanses of time” (Alexander et al., 2009, p. 178). Little has been published on how leaders’

enactive and vicarious learning impacted their decision-making throughout the first two years of the pandemic, and how learning impacted institutional resilience in higher education. There is a gap in the literature regarding how higher education leaders learn and make decisions when faced with unprecedented situations like COVID-19.

Purpose of the Study

The purpose of this qualitative multi-case research study was to explore the learning and decision-making processes of senior administrators at four public higher education institutions during the first two years of the COVID-19 pandemic. A senior administrator was defined as “upper management,” or an institution-specific president or chancellor, divisional leaders (e.g., vice presidents or vice chancellors), or chief officers, whose role and responsibility is to manage and oversee (in part or whole) institutional operations (Bowles, 2022a). This study leveraged Bandura’s (1986) social cognitive theory (SCT), in particular, how SCT underscored the contextual and interactive nature of human learning and behavior, and could illuminate how leaders navigated their own learning, decision-making, and communications strategies in response to unprecedented challenges. Through in-depth interviews, this research expanded the literature on senior administrators’ agency, observational learning, motivation, enactive learning, and self-efficacy. Ultimately, this study strived to expand our understanding of crisis management in higher education, with potential implications for improving leadership learning and institutional preparedness for future crises.

Research Questions

This study was guided by the following central question and two sub-questions.

Central Question

How did senior administrators at four higher education institutions learn and make decisions throughout the first two years of the COVID-19 pandemic?

Sub-Questions

1. What strategies did senior administrators' use to learn during the initial two years of the pandemic?
2. How did the strategies influence senior administrators' self-efficacy in decision-making during the pandemic?

Significance of the Study

This study holds significant implications for both the academic discourse surrounding higher education leadership and practical applications within the field. It builds upon existing literature on leadership decision-making by examining these processes through the lens of learning during an unprecedented crisis—the COVID-19 pandemic. While current literature highlights reflections on leadership decisions (Bensimon, 1989, 1990; Bryman, 2004; Dunford & Palmer, 1995; Fleming-May & Douglass, 2014; Head & Brown, 1995; Heimovics et al., 1995; Heimovics & Herman, 1993; Holmes & Scull, 2019; Israel & Kasper, 2004; Kezar et al., 2008; Lavigne & Sá, 2021; Lyon et al., 2014; O'Meara, 2003; Uzarski & Broome, 2019), the goal of this dissertation research is to examine the decision-making processes through a learning lens, to reflect on leadership development, and to examine decision-making during COVID-19. The results of this study aim to inform how leaders can use enactive and vicarious learning to make more confident and informed decisions in the future, particularly in crisis response.

The study's focus on senior administrator learning and perceived self-efficacy may provide various insights for how SCT influences learning and decision-making and its impact on

leadership development and crisis response across higher education administration. Three years into COVID-19 crisis management, senior administrators in higher education continue to respond to challenges that arose from the pandemic and its long-term impact on their institutions. Longitudinal outcomes have yet to be evaluated and may look very different per institution, based on how administrators evaluated and made decisions for evolving policy, data, and communicating stakeholder needs. This study acknowledges the diverse reactions of leaders to the same crisis, reflecting the unique contexts and constraints of different institutional types. In addition, participants engaged in in-depth, after-action reflection following the crisis, providing novel opportunities to focus on individual actions and considerations for their current and future leadership and decision-making strategies at their institutions. In doing so, this study may yield specific guidance for leaders of various institutions, enhancing their capacity to respond effectively to future crises.

On a practical level, the findings of this study may inform the design of leadership training programs, crisis management strategies, and policymaking in higher education, particularly in the context of crisis situations. For instance, understanding how learning—either enactively or vicariously—influences a leader’s self-efficacy, motivation, and development during a crisis could inform the creation of more effective professional development programs and support systems.

Finally, the study's results may benefit various higher education stakeholders, including administrators, faculty, students, and policymakers, by providing a deeper understanding of leadership processes during crises. It is important to note, however, that the study's findings will be bounded by the context of the four selected institutions, the individual experiences of selected participants, and the unique circumstances of the COVID-19 crisis. Future research might extend

this work to other types of crises or institutional contexts. Despite these potential limitations, this study promises to offer valuable insights into how SCT can support higher education leadership learning and decision-making in times of crisis.

Definition of Terms

1. *College, University, and Institution of Higher Education* – These terms are used interchangeably throughout this dissertation and always indicate a post-secondary, 2- or 4-year, degree-granting educational institution, or system.
2. *COVID-19 Pandemic* – COVID-19 (or coronavirus disease 2019) is a disease caused by the virus SARS-CoV-2. The World Health Organization declared the COVID-19 outbreak a global pandemic on March 11, 2020 (World Health Organization, 2020). Also referred to as COVID, the pandemic, and coronavirus.
3. *Crisis* – An event that has the potential to disrupt an organization and runs the risk of escalating in intensity, significant media or government scrutiny, interference with normal business operations, jeopardizing reputation, and damaging financial resources (Fink, 2002).
4. *Crisis Communication* – The collecting, processing, and sharing of information about an unexpected event, including its origins, organizational response, and resolution (Coombs, 2010).
5. *Crisis Management Plan* – A crisis management plan is developed in advance of an event that may need emergency resources and is prepared as a contingency resource “to remove as much guesswork as possible from the crisis” (Fink, 2002, p. 58). A crisis management plan cannot prevent or solve a crisis but is a tool to assist in responding to a crisis as it occurs.
6. *Leadership* – “A process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 2022, p. 6).

7. *Leadership Development*. The methods of how a leader is developed, educated, and trained (Brungardt, 1996).
8. *Learning* – According to Alexander et al. (2009, p. 186), “learning is a multidimensional process that results in a relatively enduring change in a person or persons, and consequently how that person or persons will perceive the world and reciprocally respond to its affordances physically, psychologically, and socially.” In this study, learning refers to the processes senior administrators used to understand and respond to the crisis in their capacity as a leader.
9. *Self-efficacy* – An individual’s beliefs about their own capabilities to exercise control over challenges they face (Bandura, 2023).
10. *Senior Administrator* – “Upper management” or an institution-specific president or chancellor, divisional leaders (e.g., vice presidents or vice chancellors for academic affairs, administration and finance, advancement, communications and marketing, and student and campus life, or chief officers (e.g. chief diversity officer), whose role and responsibility is to manage and oversee (in part or whole) institutional operations (Bowles, 2022a).
11. *Social Cognitive Theory* – The main theoretical underpinning of this study, SCT, posits that human learning is highly context-dependent and occurs either enactively (by doing), or vicariously by observing models (Bandura, 1986, 1988).

Summary

COVID-19 was a multimodal crisis for senior administrators in higher education. During the pandemic, leaders needed to learn and make decisions quickly, despite frequently changing data, guidance, and policy. As policies continued to evolve and new data were collected, leaders needed to adopt forward-thinking mindsets and anticipate future challenges, changes, and

opportunities brought about by the pandemic. Little has been published on how higher education senior administrators' enactive and vicarious learning impacted their decision-making throughout the first two years of the pandemic, and how learning impacted institutional resilience in higher education. Understanding how leaders learned and made decisions – including the exploration of forethought, self-reactiveness, and self-reflection, can elucidate evidence-based strategies and tools for leadership development, crisis management, and learning.

The purpose of this qualitative multi-case research study was to explore how senior administrators at four higher education institutions learned and made decisions throughout the first two years of the COVID-19 pandemic. The study was grounded in Bandura's (1986, 1988) social cognitive theory, which posits that human learning is highly context-dependent and occurs either enactively (by doing), or vicariously by observing models. A qualitative multi-case study approach was employed, involving methods such as in-depth interviews to gather rich, context-bound insights into these leaders' experiences.

Given the current gap in the literature regarding how senior administrators in higher education navigate unprecedented crises like COVID-19, this study holds significant potential. It aims to provide pragmatic solutions and guidance for higher education leadership development and crisis response, as well as to contribute to academic discourse, enriching our understanding of leadership in higher education contexts and informing future research.

CHAPTER TWO: LITERATURE REVIEW

Introduction

This chapter begins with a definition of leadership and overview of leadership development. The chapter then discusses frameworks for crisis management and expectations of crisis leadership in higher education. Third, it presents the literature regarding how senior administrators responded during COVID-19. Finally, the chapter describes the theoretical framework that informs the study, Bandura's (1986) social cognitive theory, and the intersection of learning during crisis management. The chapter concludes with a summary identifying gaps in the literature, presenting the need for this study.

Leadership: Defined

The concept of leadership and subsequently leadership development has evolved over the last several decades (Boyd & Taylor, 1998; Day, 2000; Day et al., 2014; Dixon, 1993; Fiedler, 1996; Neck & Manz, 1996). Despite the many different approaches, leadership is defined as “a process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 2022, p. 6). Northouse's (2022) definition includes four key components:

- 1) Leadership is a process that occurs between a leader and their followers
- 2) Leadership requires influence, or how the leader affects their followers
- 3) Leadership involves influencing a group of individuals to accomplish a common goal
- 4) Leadership focuses attention on common goals, or mutual purpose

Members of a leader's organization or team expect leaders to influence them to achieve group goals and coordinate activities to achieve goals (van Vugt et al., 2008). In mundane periods, leadership may appear unexceptional or status quo. However, in times of high stress or crisis, the group will look to leaders to make sense of what is happening (van Vugt et al., 2008;

Weick, 1976). Leaders are expected to provide comfort and direction for followers to continue forward (Taylor-Bianco & Schermerhorn, 2006; van Vugt et al., 2008). How leaders approach this work varies in style, including approaches that focus on a leader's traits, the environmental context (situational), or the needs of the followers (Northouse, 2022).

Leadership theory and research have long been studied in organizational behavior sciences (Bolman & Deal, 2013). Since the 1990s, research on leadership development has progressed to delineate between leader development and leadership development (Day et al., 2014). Traditionally, leader and leadership development prioritized individual-level skill. Early research highlighted evidence-based practices for building leader capacity, such as 360-degree feedback, executive coaching, mentoring, and networking to develop intrapersonal skills and abilities (Barling et al., 1996; Day, 2000; McCauley & Van Velsor, 1998; Neck & Manz, 1996). While these activities may improve an individual's skills as a leader, they do not directly enhance one's ability to navigate a "complex interaction between an individual and the social and task environment" (Fiedler, 1996, p. 243). Leadership development, conversely, emphasizes the development of interpersonal elements including skills, styles, and shared values (Gmelch & Buller, 2015).

Leaders must be concerned with the execution and response to their decisions by members of the work team because these decisions will lead to subsequent actions and decisions "in the continuous flow of organizational activity for which they bear responsibility" (Wood & Bandura, 1989, p. 369). In a crisis, early research showed that leaders who viewed a problem as a crisis – versus a challenge – were less willing to seek new information or to incorporate different ideas into decision-making and may even remain vigilant to past courses of action (Tjosvold, 1984). For leaders who viewed a crisis as a challenge, research has shown that self-efficacy

facilitates a manager's belief that they have the time and resources to solve the problem, can be open-minded, and assess information and alternatives in a rigorous manner (Tjosvold, 1984).

Leadership Development

Separately, leadership development in education focuses on how a leader is developed, educated, and trained (Brungardt, 1996). Leadership development is the broadest of these three terms, referring to “every form of growth or stage of development in the life cycle that promotes, encourages, and assists in one's leadership potential” (Brungardt, 1996, p. 83). Leadership education is typically defined as a formal or structured activity, and leadership training is a more narrow term referring to training activities specific to a leadership role (Brungardt, 1996). Leadership development encompasses both natural and structured experiences for leadership growth.

Colleges and universities are designed for innovation and learning and as such, one would conjecture that senior administrators in higher education would be equipped for the cycle of learning as part of leadership development. However, evidence has shown otherwise (Buller, 2014; Flaherty, 2016; Gallos & Bolman, 2021; Gmelch & Buller, 2015). Senior administrators in higher education rarely enter administrative roles with formal leadership training, significant prior experience as an administrator, or a clear understanding of the complexity and ambiguity that comes from a senior position (Gmelch & Buller, 2015). As articulated by Gmelch and Buller (2015, p. 2), “most university chief executive officers and chief academic officers have practical, on-the-job experience in academic settings...to put it bluntly, academic leadership is one of the few professions one can enter today with absolutely no training in, credentials for, or knowledge about the central duties of the position.”

Over the past 30 years of leadership development research, the rate of change has increased for technological enhancements, social trends, job requirements, and other advances that lead to novel problems that organizations have not experienced in the past. Thus, effective leaders are expected to use skills to improve comprehensive planning, adequately staff the organization, and sustain the charge (Gmelch & Buller, 2015) to help the organization “learn their way out of problems” for which “no clear cut answers have been formulated” (Dixon, 1993, p. 243). Organizational learning inherently requires leaders to know how to analyze, interpret, and synthesize information – synonyms of learning – to make decisions under pressure (Dixon, 1993). According to Dixon, “individuals and collectives find themselves engaged in a cycle of learning in order to act and acting in order to learn” (Dixon, 1993, p. 243).

Crisis, Crisis Management, and Crisis Leadership: Defined

A crisis is “an event that has the potential to disrupt – even destroy – an entire organization” (Mitroff et al., 1996, p.7). Crisis management, then, is about removing as much of the risk and uncertainty in a crisis to ensure minimal negative repercussions (Fink, 2002). Effective crisis management calls for crisis management plans, crisis responses, and post-crisis evaluations (Gigliotti, 2019). A crisis management plan is developed in advance of a situation that might need emergency resources, at a time when operations are running smoothly. A crisis management plan is a document prepared as a contingency resource “to remove as much guesswork as possible from the crisis” (Fink, 2002, p. 58). A crisis management plan cannot prevent or solve a crisis but is used as a tool to help a leader or organization respond to a crisis once it occurs. The crisis requires an immediate response – and actions depend upon the guidance of the crisis management plan as well as the type of crisis occurring. Once a crisis has been resolved, organizations should conduct a post-crisis evaluation to identify lessons learned

and how to integrate those lessons into daily operations and future crisis preparedness (Mitroff et al., 1996). L. Smith and Riley (2012) identified five categories with respect to school-based crises:

1. *Short-term crises* that are abrupt in arrival and swift in conclusion
2. *Cathartic crises* that gradually build up, reach a critical point, and then can be swiftly resolved
3. *Long-term crises* that develop slowly and continue for an extended period without a clear resolution
4. *One-off crises* that are unique and not expected to recur
5. *Infectious crises* that appear as short-term crises, but leave significant issues to be addressed that might lead to other crises

Leading models for crisis management utilize a cyclical strategy to approach a crisis, often including elements such as prevention, identification, response, and recovery (Fink, 2002; Mitroff et al., 1996; Pearson & Mitroff, 1993; L. Smith & Riley, 2012). Crisis management scholars posited that while it is practically impossible to prepare for every conceivable crisis, different kinds of crises can be clustered into categories and that the best prepared organizations develop mitigation strategies to prepare for at least one type of crisis in each category (Mitroff, 1994). Effective preparedness, then, requires senior administrators to assess and plan for a vast variety of scenarios – no matter how unlikely.

Since the early 2000s, higher education institutions have increased training, resources, and institutional capacity for emergency preparedness and response (Gigliotti, 2019). In 2003, the U.S. Federal Emergency Management Agency (FEMA) released its four-phased process framework for hazard mitigation in its publication *Building a Disaster-Resistant University*,

which focused on natural disaster preparedness to events such as earthquakes, floods, and wildfires (Federal Emergency Management Agency, 2003). The framework contains the following: 1) organize resources; 2) hazard identification and risk assessment; 3) develop a mitigation plan; and 4) adopt and implement (Federal Emergency Management Agency, 2003). In 2007, the National Association of Student Personnel Administrators (NASPA) utilized FEMA's framework to provide specific recommendations for senior leadership and student affairs professionals in response to violent incidents on campus (Jablonski et al., 2009).

In order to effectively prepare for emergencies, institutions need to have crisis management teams identified and trained prior to the incident occurring. Once the emergency management team is identified, they are then responsible for developing a crisis management plan, whose components should include purpose, plan activation, lines of authority, action steps, and crisis protocols (Zdziarski et al., 2007). As John F. Kennedy said, "the time to repair the roof is when the sun is shining" (Kennedy, 1962).

The Role of Higher Education Leaders During a Crisis

Prior to COVID-19, crisis events and crisis responses were already occurring with growing frequency, magnitude, and complexity for higher education institutions (Bataille & Cordova, 2014; Gigliotti, 2019). According to Gigliotti (2019), between 2011 and 2015, over 1,000 articles were published in higher education news outlets referencing some type of "crisis" in higher education. The author asserted that "rather than being isolated incidents requiring the sole attention of presidents, chancellors, or communication professionals, the proliferation of crises across campuses means that crisis leadership has now become fundamental to the work of university personnel across levels, disciplines, and institutions" (Gigliotti, 2019, p. 3).

Zdziarski et al. (2007) defined three increasing levels of crisis on higher education campuses: critical incidents, a level at which all crises begin, followed by campus emergencies, then disasters. Higher education leaders have been implored to prepare for the vast variety of situations that may impact their campuses and communities – from natural disasters, human-made incidents, challenges to academic freedom or information technology events, to other scandals (Bataille & Cordova, 2014). Several competing taxonomies for types of crises exist in the literature, with Gigliotti's (2019) crisis taxonomy being the most robust. This taxonomy includes:

- Academic (widespread plagiarism; fraud)
- Athletic (hazing; sexual abuse)
- Clinical (medical malpractice)
- Technological (cyberattack)
- Facilities (water main break; widespread power outage)
- Financial (decrease in federal or state appropriations)
- Human resources (employee crimes)
- Leadership (conflict between legislature and university leadership)
- Natural disaster (flood; tornado)
- Public safety (active shooter; sexual assault)
- Racial or identity conflict (campus unrest)
- Student affairs crisis (mental health)

Best practice in higher education calls for colleges and universities to have protocols and policies in place for managing all types of disasters, be it a crisis of inclement weather, cyber-attacks, or active shooters (Gigliotti, 2019). While Gigliotti's list is the most inclusive taxonomy

available, it precedes and excludes a kind of crisis that most leaders have faced since the taxonomy's 2019 publication: the all-sector crisis nature of the COVID-19 pandemic. Although this type of crisis has not yet been added to the taxonomy list (at least at the time of this writing), Gigliotti's (2019) crisis leadership guidance proposes using a "crisis matrix" to determine – no matter the event – the level, type, and perceived intention of the crisis. Indeed, subsequent publications by Gigliotti have focused on effective crisis leadership strategies for evaluating and acting on this conceptual model, such as proposing activities that address competing priorities to triage for immediate needs while making decisions regarding the long-term implications and strategic priorities of the institution (Gigliotti, 2020a). In addition, using the matrix to delineate task-centered, relationship-centered, and leadership-centered challenges and opportunities in crisis response (Gigliotti, 2021).

The expectations of a school leader during a time of crisis are fundamentally different than in regular operations. In general, effective school leadership is about "positioning the school for the future, and about supporting and empowering staff and students in the pursuit of teaching and learning excellence" (L. Smith & Riley, 2012, p. 57). In a crisis, however, leaders are expected to sensitively navigate immediate events, emotions, and consequences to minimize harm to the institution and community (L. Smith & Riley, 2012). Gigliotti (2019) approaches crisis leadership in higher education from the perspective of organizational communication, as communication creates meaning around uncertain events and is instrumental in managing the crisis response. In crisis communications, higher education leaders may come to perceive a crisis only after it has been identified as such by another stakeholder. Higher education leaders may also influence the perception of the crisis by stakeholders through framing and meaning making. Third, how leaders communicate about a crisis often becomes a self-fulfilling prophecy, hence

the leader's communication of a crisis and the subsequent construction of response will significantly influence the institutional results and recovery (Gigliotti, 2019).

Prominent scholars in crisis management and higher education literature have addressed the ever-increasing leadership responsibilities for higher education administrators in prevention of, preparing for, responding to, and recovering from the multitude of potential crises (Bataille & Cordova, 2014; Booker, 2014; Brown et al., 2015; Fortunato, 2008; Gigliotti, 2016, 2019; Mitroff et al., 2006; New Directions for Student Services, 2008; Ruben et al., 2021; Varma, 2011; Zdziarski et al., 2007). In prevention, senior administrators are encouraged to foster campus climates and cultures through training and awareness that reduce risks or occurrences of crises, particularly for potential human-made crises (Booker, 2014; New Directions for Student Services, 2008). In preparedness, institutional leaders should plan for the wide range of possible emergencies, rather than "isolated catastrophes," while ensuring that crisis management teams incorporate the broad stakeholder membership, whose buy-in will be critical if plans need to be implemented (Gigliotti, 2020b; Mitroff et al., 2006; Zdziarski et al., 2007). In responding to a crisis, communication strategies are critical to ensuring timely notification, addressing stakeholder needs, and effectively implementing the plan across activated units (Gigliotti, 2019; New Directions for Student Services, 2008; Varma, 2011). In addition, as stated by Bataille and Cordova (2014, p. 2), "each action has a reaction, and campus leaders need to anticipate the results of their decisions," and therefore, "recovery" activities require strategies for moving forward, psychological first aid, and processing in order to learn from the incident (Mitroff et al., 2006; New Directions for Student Services, 2008).

Crises are, at the core, unpredictable and disorienting. Zdziarski et al. (2007) outline six characteristics of crisis that can influence how higher education leaders and their organizations

interpret and respond to a crisis event. The first is the perception of the situation: a crisis involves risk and uncertainty, and how an organization responds can have either a positive or negative impact on its subsequent future. The additional characteristics include the element of surprise, limited response time, interruption of operations, and threat to safety and well-being (Zdziarski et al., 2007). Best practices in the higher education literature recommend responding to a crisis following five steps (L. Smith & Riley, 2012):

1. *Gather information*: the amount, relevance, quality, and reliability of the information available at the time will impact planning and appropriate response
2. *Implement a contingency plan, or quickly adapt to meet the current situation*: executing the pre-considered management plan means organizational stakeholders have a thoughtful guide to know what has to be done and who needs to do it
3. *Be decisive*: Making decisions quickly reduces crisis escalation and communicates optimism and a sense of control
4. *Show concern*: Empathy for the welfare of the organization and its stakeholders builds trustworthiness, motivation, and resolve
5. *Communicate*: clear and timely communication limits ambiguity and misinformation

Higher education scholars emphasize that to be an effective change *leader*, one must “see themselves as part of the system being changed, not in control of it from high” (Buller, 2014, p. 101). As organizations develop crisis management plans, leaders are also expected to develop plans for crisis leadership development. Using Ruben et al.’s (2021) leadership competency framework, key areas of effective crisis leadership align with the steps above:

1. *Analytic competencies* refer to self-assessment, problem and organizational analysis, and problem-solving

2. *Organizational competencies* refer to vision setting, management, and goal attainment
3. *Positional competencies* refer to the leader's training, experience, and expertise
4. *Personal competencies* refer to values, ethics, creativity, enthusiasm, and role modeling
5. *Communication competencies* refer to effective interaction, credibility, trust, influence, listening, and negotiation

The implications for effective crisis leadership in higher education does not mean crises are completely avoided, but serve as a “turning point” for an institution. Leaders must focus on clarifying the perception of a situation, the scope of the issue at hand, and demonstrate flexibility and confidence (Gigliotti, 2019), all actions that will impact the recovery and long-term results of the response. Empirical evidence is limited when it comes to leadership learning while responding to a crisis, and yet learning is change (Alexander et al., 2009), and therefore a constant to be addressed when a crisis completely overturns life.

Effective higher education crisis *leadership* requires “prevention *and* management, consistency *and* clarity, trust *and* transparency – with communication playing a critical role throughout each phase of any given crisis” (Gigliotti, 2019, p. 87). While much of the literature on prevention and preparedness is embedded in higher education leadership theory and practice, response and recovery is still predominantly housed in organizational behavior and communications fields (Brown et al., 2015; Fortunato, 2008; Gigliotti, 2019; Varma, 2011). In addition, most crisis management frameworks articulate reflection and learning in the “recovery” stage, rather than inherently and naturally occurring throughout the crisis cycle.

While the scholars cited in the section above have studied responses to crises in higher education, these crises were mostly limited by either time or taxonomy. Literature is just emerging on how higher education leaders led during COVID-19, which transcended all prior bounds for crisis management strategies and protocols. In the following section, I summarize the current research and subsequent impact of COVID-19 on higher education leadership.

Higher Education Responses to the COVID-19 Crisis

The impacts of COVID-19 on higher education institutions worldwide are profound and continue to expand (Crawford et al., 2020; García-Morales et al., 2021; O’Shea et al., 2022; Piotrowski & King, 2020). Three years into the pandemic, more research is emerging on institutional and leadership responses, looking across disciplines to examine the effects of the pandemic through various theoretical lenses, such as grounded theory, social psychological theory, desktop analysis, and situation crisis communications theory (Crawford et al., 2020; Gigliotti, 2021; O’Shea et al., 2022; L. Smith & Gibson, 2020). Piotrowski and King (2020) conducted a bibliographic survey of current literature and presented a summary of key studies on the nexus of crisis communication and pandemics. In their results, they outlined multiple concurrent challenges faced by senior administrators in higher education, including the financial implications of campus closures and athletic competitions, technological infrastructure and university operations that cannot transition to virtual environments, among others, concluding with the statement, “at the end of the day, those colleges and universities who are able to meet the demands and obstacles presented by COVID-19, as well as seize the opportunities of a different future will likely prosper and flourish” (Piotrowski & King, 2020, p. 64).

Contemporary research also highlights that addressing COVID-19, budget considerations, and systemic racism were considered interwoven crisis events across institutional and leadership

responses (Douglas, 2020; Felson & Adamczyk, 2021; Harper, 2020; Kruse et al., 2020; Marsicano et al., 2020; Rowley, 2022). Felson and Adamczyk (2021) used a mixed modeling technique to analyze Davidson College's College Crisis Initiative (C2i) data on higher education COVID-19 pandemic responses from the first year of the pandemic response. The CCI sample includes the majority of institutions with 2018 Carnegie classifications of associates' colleges (87%), associate/baccalaureate and baccalaureate colleges (81%), masters' institutions (91%), and doctoral universities (95%) (Davidson College, 2020). This study reported that decisions to return to in-person instruction were less related to concerns of COVID-19 infection and mortality rates and more related to political and budget concerns (Felson & Adamczyk, 2021). Other studies, such as Douglas (2020), Harper (2020), and Marsicano et al. (2020) commented on how COVID-19 exacerbated institutional inequality and the intersection of racial equity and COVID-19 response, including disproportionate financial impacts on private versus public and two-year versus four-year institutions; disproportionate risks for essential workers, who are predominantly People of Color; risks of violence toward Asian American and Asian international students and employees; trauma and grief support for persons disproportionately experiencing loss, again predominantly Communities of Color; and racialization of input and stakeholder feedback, as most senior administrators at higher education institutions are White (Espinosa et al., 2019).

During the COVID-19 pandemic, the decisions, and subsequent outcomes, drove higher education institutions on specific paths for recovery (or not). Crawford et al.'s (2020) desktop analysis provided an early multi-case study approach of how different higher education institutions across six international regions initially responded to COVID-19. This meta-analysis of higher education response across 20 countries highlighted institutional similarities and differences on an international scale, including changes to academic calendars and the adoption

of innovative learning and curricular delivery strategies, encouraging coordinated, collaborative, and collective responses to share promising practices. This study provided not only an overview of in vivo responses in higher education, but also shared aggregate data for how different countries implemented isolation strategies.

O'Shea et al. (2022) examined 732 communications from 27 higher education institutions in three countries using a qualitative approach of document analysis. O'Shea et al.'s (2022) findings revealed 15 themes of commonly adopted communications strategies throughout the different stages of the pandemic, which fell into three larger thematic categories: "institutional response," "leadership and stakeholder," and "timeline". These three categories are notable for identifying significant areas of academic leadership decision-making during the crisis, including communication, the creation of COVID-19 task forces, importance of emotional appeals, references to public health guidelines, and universities' social responsibilities to serve their communities (O'Shea et al., 2022).

Regarding the implications of the unprecedented disruption COVID-19 caused, García-Morales et al. (2021) and Laura Smith and Gibson (2020) asserted that this disruption resulted in a rapid and radical transformation of higher education at a global level, particularly in the digitalization of learning and behavioral sciences that would otherwise be impossible. García-Morales et al. (2021) outlined recent literature on the difficulties, breakthroughs, and assessment methods for the hurried transition to online teaching, whereas Laura Smith and Gibson (2020) provided an overview of recent literature on the rapid response strategies to provide evidence on how behavioral science informs policy and decision-making related to COVID-19. Gigliotti's (2021) study of 172 department chairs in the United States found that challenges for leaders intensified, evolved, and required reinvention, articulating a clearer need for increased training

and development for higher education senior administrators in a post-COVID world. The implications from Gigliotti's (2021) survey showed that by increasing channels of communication in leadership roles within an institution, crisis-related information was more easily disseminated and understood. In addition, "there may be greater opportunities for the invention and sharing of ideas, and [department] chairs may be more engaged in addressing the interdependent issues that often cut across academic departments" (Gigliotti, 2021, p. 441).

Indeed, senior administrators in higher education were forced to make concurrent decisions swiftly and decisively, under scrutiny, with little opportunity for reflection. Even in times of reflection, senior administrators in higher education communicated to their peers and stakeholders about learned resilience, adaptability, and future campus culture, demonstrating both vicarious and enactive learning (Acton et al., 2022; Blankenberger & Williams, 2020; Duke University, 2020; Fernandez & Shaw, 2020a; Liu et al., 2022; Marshall et al., 2020). Liu et al.'s (2022) qualitative study of 55 in-depth interviews with leaders from 30 higher education institutions in the U.S. articulated common themes of shared values among participating senior administrators: 1) engage in accuracy, transparency, and accountability; 2) foster deliberative dialogue; 3) prioritize safety; 4) support justice, fairness, and equity; and 5) engage in an ethic of care. These shared values were common among other publications on academic leadership during COVID-19. Fernandez and Shaw's (2020b) commentary frames promising practices for navigating unpredictable challenges like COVID-19 through a lens of transformational academic leadership and "using a Kaizen or continuous improvement approach to the implementation of total quality management" (Fernandez & Shaw, 2020b, p. 61). Fernandez and Shaw (2020b) provide the following recommendations as best practices for leadership during a crisis: (1) utilize servant leadership to improve empowerment, involvement, and collaboration across an

organization; (2) distribute leadership responsibilities throughout the organization; and (3) communicate clearly and frequently to all stakeholders using a variety of channels. Similarly, Marshall et al. (2020) articulated the importance of providing clear direction, communicating effectively, working collaborative, and engaging in adaptive leadership in their conceptual paper comparing leadership in higher education institutions in Barbados and Canada during the beginning of the COVID-19 pandemic. While the reference papers above provide similar findings, the data sources of these are vague outside of the authors' own commentary or case study experiences.

Acton et al. (2022) also analyzed Davidson College's (2020) C2i data of 1,247 four-year institutions to examine how colleges and universities responded to their peers' decisions to open in-person, online, or in a hybrid model for the fall 2020 semester. Acton et al. (2022) found that as more of an institution's peers announced they would be reopening in-person or online, that institutions were more likely to make the same reopening decision. Acton et al. (2022) limited their analysis to four-year public and private non-profit institutions and also excluded "any institution that announced a decision prior to April 1, 2020 or did not announce a reopening decision by August 31, 2020" (p. 290).

Crisis communications from senior administrators emphasized integrity and accountability (Duke University, 2020), and demonstrated a need "to guarantee that students are receiving equivalent educations regardless of delivery method, will have to persuade students to enroll regardless of the present uncertainties, and convince students, families and the public that they can still be trusted to act" (Blankenberger & Williams, 2020, p. 417). Overall, this early evidence of academic leadership during the pandemic highlights not only the challenges and

opportunities in infrastructure, but also in the perspective, attitudes, and capacity of leaders to serve their institutions and their stakeholders effectively during crisis eras.

Scholars recommended that as institutions transition to post-pandemic operations, leaders must explore “the new normal” of blended teaching and improve infrastructure to create longstanding methods for hybrid delivery of teaching or repurpose existing buildings for blended-learning to improve access for all students, alleviating international status anxiety, which includes concerns about travel and visa status, stigma or stereotyping, and increased international student fees (Bebbington, 2021; Oleksiyenko et al., 2021; Yang & Huang, 2021). Crisis communications and institutional management are core themes in the contemporary literature (Barker & Kellogg, 2022; Calonge et al., 2021; Freeman et al., 2021; McNaughtan et al., 2022; O’Shea et al., 2022; Piotrowski & King, 2020; Reed & Disbrow, 2020; D. Smith, 2022). In a study of 27 international higher education institutions, three major themes developed around communication approaches, including institutional response (e.g., compliance with government policies), leadership and stakeholder communications (e.g., “emotional appeals” to work together), and timeline (e.g., closure and reopening) (O’Shea et al., 2022). Most institutions in the U.S. developed a type of crisis management team or “task force” that became responsible for decision-making, such as the implementation of safety measures, the reallocation of resources, and communications for closures, instructional shifts, and reassurances to “attend to the emotional needs of their stakeholders” (O’Shea et al., 2022, p. 643).

Crisis communication is a well-established area of research and an important factor in leadership decision-making during times of unrest (Coombs, 2010). Calonge et al. (2021) and McNaughtan et al. (2022) identified the following key recommendations for contemporary higher education crisis communications: 1) leaders should use websites and social media to

clarify, instruct, and inform internal and external stakeholders; 2) keeping safe and open lines of communication open is paramount and communications should consistently reinforce core values; 3) time-critical information accuracy is vital; 4) students need to be included in crisis communication messaging and strategy; and 5) empathy, positive messaging, trustworthiness, and consistency enhance inclusivity and confidence in the leadership team. Commentaries on higher education leadership emphasize changes to institutional management, such as shifts from top-down management to shared leadership and collaborative teams (Calcado et al., 2022; Menon & Motala, 2021; D. Smith, 2022; Zheng et al., 2020), centering on values and ethical principles (Liu et al., 2022; Simpkins, 2020).

Leadership Learning During COVID-19

Evidence is also emerging on how leaders learned during the COVID-19 pandemic. Islam et al. (2022) interviewed crisis response team members from 30 higher education institutions in the United States in May 2020 and conducted follow-up interviews with 25 of the original interviewees in October 2020. Higher education leaders quickly engaged in learning processes such as experiential learning and vicarious learning to respond to the immediate crisis needs (Islam et al., 2022). In experiential learning, leaders reported learning from doing (e.g., trial-and-error), feedback and knowledge development, and collaboration with external stakeholders such as government officials or other academic institutions (Ghosh & DeMartino, 2022; Islam et al., 2022). Scholars also highlighted examples of vicarious learning, such as learning from peer institutions and making informal comparisons and benchmarking, as well as “learning from exemplars” (Ghosh & DeMartino, 2022; Islam et al., 2022; McNaughtan et al., 2022). Facilitators for learning included past crisis experience, and leadership expertise in public health and crisis management, while inhibitors included information overload, inconsistency, complex

administrative structures, and lack of information, documentation, and reflection (Calçado et al., 2022; Islam et al., 2022; Liu et al., 2022).

Empirical research on competencies and guidance specific to types of higher education institutions, such as historically Black colleges and universities (HBCU) or health professions campuses, remains limited, though critical for the diverse ecosystem of higher education to continue to thrive. D. Johnson et al. (2022) found that college and university plans may have been influenced by the presence of Council on Education of Public Health (CEPH)-accredited schools and programs of public health, and/or the input of their faculty on institutional decision-making. Scholars also remarked on the gap in the literature regarding HBCU governance and leadership during COVID-19 and the considerations encompassing effective leadership during times of crisis (M. S. Johnson & Thompson, 2020). Research is needed to examine the tailored priorities for different types of institutions, as well as the skills and resources for both new and seasoned leaders to continue to advance their capacity in learning and decision-making during a crisis.

In summary, this emerging literature provides an overview of current efforts in the field to frame the impact and future implications of COVID-19 on higher education. The methodologies used across these studies also demonstrate various frames for gathering this emergent data, including literature reviews (Calonge et al., 2021; Crawford et al., 2020; García-Morales et al., 2021; Marshall et al., 2020; Piotrowski & King, 2020), quantitative data collection and secondary data analysis (Acton et al., 2022; Felson & Adamczyk, 2021; Freeman et al., 2021; D. Johnson et al., 2022; McNaughtan et al., 2022), and qualitative research methods (Gigliotti, 2021; Islam et al., 2022; Kruse et al., 2020; Liu et al., 2022). The majority of evidence comes from case studies, opinion editorials, and commentaries published by higher education

experts who reflected in real-time about their experiences (Barker & Kellogg, 2022; Bebbington, 2021; Calcado et al., 2022; Douglas, 2020; Harper, 2020; M. S. Johnson & Thompson, 2020; Marsicano et al., 2020; Menon & Motala, 2021; Oleksiyenko et al., 2021; Reed & Disbrow, 2020; Rowley, 2020, 2022; Simpkins, 2020; D. Smith, 2022; Yang & Huang, 2021; Zheng et al., 2020).

While case study and commentary literature inherently reflect unique experiences from a specific institution or senior administrator's perspective, the multitude of these shared experiences provides support for the methods used in this dissertation research. Looking deeper into the qualitative case studies summarized above, transferable findings include: intensification and increased complexity of administrative challenges, whether task-, relationship-, or leadership-based (Gigliotti, 2021; Kruse et al., 2020; Menon & Motala, 2021); shared leadership values in accountability, teamwork, and public safety (Calcado et al., 2022; Liu et al., 2022); and the role of teams, personal agency, and impact on crisis response (M. S. Johnson & Thompson, 2020; Reed & Disbrow, 2020). Therefore, the qualitative, case study methods for this research communicated how leaders in the field are disseminating their early COVID-19 experiences.

The influence of senior administrators who may have health professions experience and similarities or differences in responding to the pandemic is a gap in the literature. Much of the literature cited omitted information on the prior experiences or academic backgrounds of senior administrators (such as presidents, provosts, deans, chairs, vice presidents, etc.). Only one study examined the influence of health professions faculty on college and university COVID-19 response (D. Johnson et al., 2022). D. Johnson et al. (2022) analyzed data from 3,036 institutions and compared Fall 2020 course instruction modality between Council on Education of Public Health (CEPH)-accredited and non-CEPH-accredited four-year institutions. CEPH-accredited

institutions were 63.8% more likely to use a hybrid or more restrictive approach to teaching in Fall 2020 (D. Johnson et al., 2022). While this study highlighted that institutional presence of health professions education (HPE) faculty can be a valuable resource to support public health best practices, it does not inform how an HPE lens impacted institutional leadership and crisis management. This study sought to narrow this gap.

Theoretical Framework

A theoretical framework provides grounding for a research study and serves as a guide on which to support the study (Varpio et al., 2020). This study was framed by Bandura's (1986, 1988, 2023) social cognitive theory (SCT). According to SCT, human learning occurs either enactively (by doing) or vicariously by observing social models in order to learn rules, skills, strategies, values, and attitudes (Bandura, 1986, 1988, 2023). A central tenet of SCT is human agency which refers to the capability of individuals to influence the course of events in their lives by their actions (Bandura, 2006). Human agency incorporates human development, adaptation, and change, or "personal qualities that are not merely a static result of environment and biological determinants. They are part of the causal structure" (Bandura, 2023, p. 6). Bandura posited that there are three modes of human agency within SCT: individual, proxy, and collective (Bandura, 2006). *Individual agency* is a person's influence on their own behavior and environment; however, most people do not have full direct control over their lives. Therefore, they exercise *proxy agency*, or "by influencing others who have the resources, knowledge, and means to act on their behalf to secure the outcomes they desire" (Bandura, 2006, p. 165). The third type of human agency is *collective agency*, or how individuals pool their knowledge, skills, and resources to work together to shape their future (Bandura, 2006).

Within these forms of human agency, there are three psychological elements: forethought, self-reactiveness, and self-reflection (Bandura, 2023). *Forethought* includes future-goal setting and anticipation of “likely outcomes of prospective actions to guide and motivate their efforts” (Bandura, 2006, p. 164). Forethought enables individuals to visualize behavior beyond their immediate environment and shape their current circumstances to realize desired future states (Bandura, 2023). The second element, *self-reactiveness*, is central to goal-based motivation and the behavioral standards a person sets for themselves and evaluates their behavior against these adopted standards (Bandura, 2006). Finally, *self-reflection* is the metacognitive ability to reflect on one’s past, present, and future actions, thoughts, morals, and meanings (Bandura, 2023). Self-reflection can also lead to corrective adjustments in self-perceived capabilities (Bandura, 2006).

Another tenet of SCT is triadic reciprocal causation, which refers to the mutual interaction between behavior, cognition, and environmental events (Bandura, 1988). These interacting elements are further explained by the following activities: mastery modeling, perceived self-efficacy, and motivation through goal systems (Bandura, 1988). In SCT, modes of learning affect perceived self-efficacy and motivation. These modes include observational learning and enactive learning (Bandura, 1988, 2023). In observational learning, people learn new behaviors by watching the performances of others (Bandura, 2023). In mastery modeling, complex skills are broken down into subskills that the individual can review and practice. Mastery modeling provides brief demonstrations for how particular rules can be widely applied and adjusted to fit changing conditions, so learners can learn how to apply rules under different circumstances (Bandura, 1988, 2023; Wood & Bandura, 1989).

Feedback and corrective modeling also improve competencies, morale, and productivity within organizations (Bandura, 1988). Observational learning, or vicarious experience, allows for a leader to see someone similar to them succeed or sustain an effort and hence increase their belief in their own capabilities (Bandura, 1988; Wood & Bandura, 1989). Social persuasion, or realistic and positive encouragement, can raise a leader's belief and motivation to exert greater effort toward development (Bandura, 1988). Once both mastery or corrective modeling occurs, humans can process this observed information and determine the salience, value, and importance of retention, which may or may not lead to motivation to enact those behaviors themselves (Bandura, 2023).

At the foundation of all human agency is an individual's self-efficacy, or one's own judgements "of what one *can* do in a current or prospective situation, not statements of intentions of what one will do" (Bandura, 2023, p. 53). While modeling facilitates the development of skills, self-efficacy facilitates behavior and decision-making. People may avoid tasks they believe exceed their capabilities and pursue tasks they believe are within their capabilities. Sources of perceived self-efficacy include selection processes (choices of activities and environments), cognitive processes (analytic thinking and goal setting), motivational processes (effort and task persistence), and affective processes (choices of activities and environments) (Bandura, 2023). For example, people make decisions about the environments and activities of their lives in part due to their subjective beliefs about themselves. These decisions may lead to patterns, setting goals, and overcoming obstacles, which can increase a leader's resilience to potential future failures without being easily discouraged (Bandura, 1988). Also a component of human agency, goal-setting provides a sense of purpose and direction, can increase productivity, and build self-efficacy (Bandura, 1988). Goals must demonstrate certain characteristics to be

motivating. For example, goals must be explicit with clear guidelines for performance, at a challenge level that matches perceived ability, and have reasonable proximity for achievement (Bandura, 1988; Wood & Bandura, 1989).

Motivation is also an important component of self-efficacy, particularly in understanding resilience capabilities. Experiences in goal-achievement or other forms of success increases confidence in mastering potential future challenges through perseverance. If people only have easy wins, then self-efficacy is “easily undermined by failure” (Bandura, 2023, p. 60). In turn, self-efficacy impacts a person’s ability to cope with stress, threats, anxieties, and adverse events, or the affective processes, which are highly consequential in leadership success. Recent research has demonstrated that collective (team) efficacy is a significant mediator for leadership self-efficacy and group performance (Dwyer, 2019), validating the importance of triadic reciprocal causation in continued leadership development and growth.

Intersection of Self-Efficacy and Leadership Development

Perceived self-efficacy has significant influence on leadership performance (Bandura, 1997; Wood & Bandura, 1989). Leaders who view cognitive ability as a learnable skill “seek challenges that provide opportunities to expand their knowledge and competencies...errors are regarded as a natural, instructive part of an acquisition process” (Wood & Bandura, 1989, p. 372). On the other hand, leaders who view cognitive ability as fixed see errors as deficiencies and are motivated to pursue easier to achieve goals that demonstrate competence (Wood & Bandura, 1989). Effective leadership requires high levels of human agency, which support an individual’s internal motivation and capability beliefs needed to pursue challenging tasks and opportunities successfully (Hannah et al., 2008).

Scholars have called for the need to distinguish between *leader* self-efficacy and *leadership* self-efficacy (Hannah et al., 2008; Machida & Schaubroeck, 2011). The former comprises the behaviors of an individual leader, whereas for the latter, leadership self-efficacy is “an emergent positive influence occurring in a group of which the leader is a part” (Hannah et al., 2008, p. 670). Leadership development occurs at a group level and hence, a focus on leadership self-efficacy pinpoints Bandura’s core components of collective human agency and triadic codetermination. According to Machida and Schaubroeck (2011), “without a good leader, it is not possible to develop successful leadership in groups and teams” (p. 460).

Several prior studies on leadership self-efficacy explored how leaders influence followers’ self-efficacy (G. Chen & Bliese, 2002; Epitropaki et al., 2017; Huang et al., 2016). Epitropaki et al. (2017) conducted a review of literature focused on leader and follower identity development dynamics and found that over 219 articles were published on leader and follower identity and related constructs in the last 50 years, with 150 of them published in the last 10 years. This systematic review concluded that the interpersonal level of leadership and followership dynamics have received significant attention in the literature, whereas intrapersonal and group level research is more limited (Epitropaki et al., 2017). Similarly, Huang et al. (2016) examined the effect of leader creative self-efficacy (CSE) on follower creativity by using a sample of 544 employees nested under 106 supervisors at a U.S.-based technology company. The authors found statistically significant results that leaders with strong interpersonal relationships with followers, along with high levels of creative self-efficacy themselves, were more likely to engage in behaviors fostering follower creativity, increasing follower engagement and creativity self-efficacy ($\gamma = 0.44, p < .001$). In another study assessing self-efficacy, G. Chen and Bliese (2002) analyzed data from 2,585 soldiers nested in 86 U.S. Army combat units to

assess predictors of self- and collective-efficacy and to test the hypothesis that “the direct relationship between leadership climate and collective efficacy would be stronger than the relationship between leadership climate and the average levels of self-efficacy within the group” (p. 553). The authors contrasted the correlation between upper-level leadership and collective efficacy ($r = .66$) with the correlation between upper-level leadership and group average self-efficacy ($r = .25$) and the findings revealed that the correlation between upper-level leadership and collective efficacy was significantly stronger than the correlation of .25, $t(83) = 3.84$, $p < .001$ (G. Chen & Bliese, 2002).

The above findings are important because these studies demonstrate self- and collective efficacy are cultivated differently. However, these studies do not directly assess leader self-efficacy and leader performance, or the impacts of leader self-efficacy on peers. In fact, very few empirical studies to date have examined the relationship between leader self-efficacy and the leaders’ performance (Anderson et al., 2008; Hannah et al., 2008, 2012; Machida & Schaubroeck, 2011). In their development of leadership self-efficacy (LSE) taxonomy, Anderson et al. (2008) concluded that a leader’s beliefs regarding their leadership self-efficacy versus their true leadership effectiveness is more fine-grained and distinct from the structure of actual leadership effectiveness, findings consistent with Bandura’s (1997) assessment that self-efficacy precedes competent performance. These findings are also consistent with results found by McCormick and Martinko (2004), who posited that when leaders optimistically reflect on their leader causal reasoning, self-efficacy, goals, task schema, and strategies, they have increased self-efficacy and increased leadership effectiveness.

In their review of the literature on leadership development and self-efficacy, Machida and Schaubroeck (2011) found that developmental experiences (feedback, challenge, and support)

and learning orientation were two key factors that influence leaders' self-efficacy, which, in turn, will impact future performance and effectiveness. This theory is aligned with Lord and Hall's (2005) model of leadership that skilled performance is structured via learning and experience progression, such as novice, intermediate, and expert levels. Leader and leadership development, then, must aim to increase self-efficacy, under the assumption that these efforts will lead to self-correcting change and assure optimal leader development and advancement (Machida & Schaubroeck, 2011).

Self-efficacy, however, is not static. In a description of resilient self-efficacy, Machida and Schaubroeck (2011) emphasized "that an individual's self-efficacy varies over time, and that self-efficacy is specific to a situation and context" (p. 463). The malleability of leadership self-efficacy poises it to be at the center of successful leadership development: the core components of human agency, including forethought, self-reactiveness, and self-reflection (Bandura, 2023; Hannah et al., 2008; McCormick & Martinko, 2004). Addressing development in identity, meta-cognitive processes, and emotional regulation may increase a leader's motivation and perceived self-efficacy, and hence their ability to manage more complex, challenging, or novel situations (Lord & Hall, 2005; McCormick & Martinko, 2004).

This study's focus on senior administrator learning, perceived self-efficacy, and decision-making may provide various insights for leadership development and crisis response across higher education administration. Current literature highlights the initial outcomes of academic leadership during the pandemic and implications for leadership, institutions, and learning in its immediate aftermath. Longitudinal outcomes have yet to be evaluated and may look very different per institution, based on how administrators evaluated and made decisions for evolving policy, data, and communicating stakeholder needs. This study, by identifying specific types of

institutions, such as a residential university, a professional university, an HBCU, and a system administrative office within a large public university system, may yield both transferable and specific guidance for leaders of various institutions, enhancing the capacity of leaders to navigate and respond to future crises.

Summary

This study was framed by Bandura's (1986) social cognitive theory, which posits that human learning is highly context-dependent and occurs by observing social models to learn rules, skills, strategies, beliefs, and attitudes. In observational learning, people learn new behaviors by watching the performance of others. While modeling facilitates the development of skills, self-efficacy facilitates motivation, behavior, and decision-making. In turn, self-efficacy impacts a person's ability to cope with stress, threats, anxieties, and adverse events, or the affective processes, which are highly consequential in leadership success.

Perceived self-efficacy has significant influence on leadership performance. For leaders who view a crisis as a challenge, research has shown that self-efficacy facilitates a manager's belief that they have the time and resources to solve the problem, they can be open-minded, and assess information and alternatives in a rigorous manner. The malleability of leadership self-efficacy poises it to be at the center of successful leadership development: the components of human agency, including forethought, self-reactiveness, and self-reflection.

The implications for effective crisis leadership in higher education does not mean crises are completely avoided but serve as a "turning point" for an institution. Evidence is emerging on how leaders learned during the COVID-19 pandemic, including via experiential learning and vicarious learning. The current literature demonstrates how iterative learning has led to adaptation, flexibility, and resolution during times of significant and rapid change. This literature

informs this study by providing evidence for the benefits of framing leadership development and crisis management from a SCT lens, particularly in exploring leadership self-efficacy and strategies for learning to improve leadership practice during a crisis.

CHAPTER THREE: METHODS

Introduction

The purpose of this qualitative multi-case research study was to explore how senior administrators at four higher education institutions within a state university system learned and made leadership decisions throughout the first two years of the COVID-19 pandemic. The chapter introduces the study design and established procedures for multi-case study data collection followed by the research questions. Next, the participants and setting, procedures, instrumentation, data analysis plan, trustworthiness criteria, and ethical considerations are presented. The chapter concludes with a summary.

Research Design

A qualitative, multi-case study design was used to conduct this research. Qualitative methods are best suited for exploration and discovery in order to address phenomena for which little may be known or to develop theory (Corbin & Strauss, 2008; Creswell & Guetterman, 2019). Such topics may have little published literature or have not yet been addressed with a specific group of people or circumstance. COVID-19 was an unprecedented phenomenon for senior administrators in higher education. Qualitative methods are useful to explore the perceptions of those who experienced the phenomena within the context of higher education, to understand leadership learning during crisis, and improve leadership practices. Qualitative research explores how meanings are formed based on experiences and environments (Corbin & Strauss, 2008).

Case studies are one type of qualitative research approach; they explore a bounded system through comprehensive, in-depth data collection that involves multiple sources of information, such as interviews, audiovisual material, documents, and reports (Creswell & Poth,

2018). Case study research begins by identifying a certain case that is bounded or defined within specific parameters. A multi-case study allows the researcher to examine an issue from different perspectives (i.e., multiple cases illustrating facets of the same problem). Case studies often examine scenarios occurring presently, so investigators can gather accurate information “not lost by time” (Creswell & Poth, 2018, p. 97). Case study design is appropriate for this study because multiple cases will be clearly identified within a bounded system and the cases will be compared to elucidate similarities or differences.

Procedures for Conducting Multi-Case Study Research

This study utilized Creswell and Poth’s (2018) eight-phase qualitative research process:

1. Acknowledge assumptions and identify the interpretive lens of the research
2. Determine if the research problem needs to be addressed in the literature
3. Draft exploratory, open-ended questions
4. Collect data from multiple sources
5. Analyze data using inductive and deductive strategies
6. Present results based on participant perspectives and researcher interpretations
7. Discuss findings and compare with other results
8. Use validation strategies

The implementation of the phases outlined above will be discussed more in depth in the procedures section of this chapter.

Research Questions

This study was guided by one central research question and two sub-questions.

Central Question

How did senior administrators at four higher education institutions learn and make decisions throughout the first two years of the COVID-19 pandemic?

Sub-Questions

1. What strategies did senior administrators' use to learn during the initial two years of the pandemic?
2. How did the strategies influence senior administrators' self-efficacy in decision-making during the pandemic?

Participants and Sampling

The participants in this study included senior administrators recruited from four different higher education institutions. This study utilized purposeful sampling, which refers to strategies in which the researcher intentionally selects who will provide the best perspective on the central phenomenon (Creswell & Guetterman, 2019). In addition, I used maximum variation sampling to represent diverse cases (Creswell & Poth, 2018). The four selected study sites include higher education institutions within a U.S. East Coast public university system. The public university system headquarters and three diverse universities were selected due to their contrasting site elements as described below. Selection criteria for each of these institutions was based upon definitions published by Inside Higher Ed (Bowles, 2022b) and are as follows:

1. A professional and graduate school campus: an institution that prepared students for specific professions or industries, such as law, medicine, and nursing
2. A residential college or university: an institution where students live on campus in university-provided housing

3. A historically Black college and university (HBCU): defined by the Higher Education Act of 1965 as “any historically Black college or university that was established prior to 1964, whose principal mission was, and is, the education of Black Americans” (Bowles, 2022a, p. 4).

Each institution has a unique mission and set of guiding values. Nonetheless, each follows the overarching leadership of a single Chancellor’s office and Board of Regents, who oversee the system's academic, administrative, and financial operations. Participants from each institution met the following inclusion criteria:

1. Actively employed as a senior administrator at a system-affiliated institution.
2. Held a senior academic leadership position at a system-affiliated institution between January 1, 2020, and December 31, 2021.

The objective was to recruit three to four senior administrators from each of the four institutions to participate in the study, including individuals who held the following types of leadership roles: president, provost, external relations/affairs, administration and finance, academic affairs, and general counsel. The broad range of institutions also provided various contexts against which cases could be compared to deduce common leadership experiences, regardless of institution. While the actual titles of the participants may have varied, their roles were comparable in responsibility across the institutions selected for this study. Participants were identified from each institution and recruited based upon inclusion criteria.

Procedures

The full research protocol was submitted to the University of Maryland, Baltimore institutional review board (IRB). Following IRB approval, an invitation to participate in the study (Appendix A) was emailed directly to senior administrators and their executive assistants

at the four selected institutions. A case, or cases, are first identified, followed by obtaining access through a key informant or gatekeeper (Creswell & Poth, 2018). Building rapport with gatekeepers was a critical step in the recruitment process. The executive assistants of the senior administrators served in gatekeeping capacities and assisted with scheduling participants.

Participants were also provided a copy of the informed consent form (Appendix B) in the initial email invitation. For participants who opted to participate in the interview, verbal consent was obtained within the recording prior to the start of the interview. To refine the interview questions and the procedures, I conducted a pilot test of the interview guide with a dissertation committee member who held a similar role and represented multiple functional areas. Based on the pilot results, interview questions were modified and refined to ensure the questions were clear and responses would be relevant.

To schedule the eligible participant interviews, emails and phone numbers were obtained via publicly available information on institutional websites. Individuals were contacted up to three times, including one initial invitation and two follow up emails or phone calls. If an individual elected to participate in the study, I contacted them or their executive assistant directly to coordinate the interview. If the individual did not respond to the invitation after the initial invitation and two follow up emails, they were removed from consideration as a participant.

I collected qualitative data via in-depth, one-on-one, semi-structured interviews using Zoom. Interviews were transcribed, and data were analyzed following the six-step process, which will be explained further in the data analysis subsection, as described by Creswell and Guetterman (2019):

- 1) Preparing and organizing data for analysis
- 2) Exploration and coding of data

- 3) Using the codes to develop descriptions and themes
- 4) Representing the findings through narratives and visuals of aggregate research data
- 5) Interpreting the meaning of the results for the subsequent discussion and conclusion
- 6) Conducting validity checks to ensure accuracy of the findings

Data were organized and stored as digital files following a naming system protocol.

Storage of files followed a secure storage protocol. Confidential documents with private identifiable information, such as audio recordings, were stored in a password-protected electronic system on Microsoft OneDrive, a secure cloud-based network. Each interview was audio recorded and initially transcribed through the Zoom platform. I then reviewed and cleaned the transcripts to ensure the exactness of the data, such as references to proper names, institutions, and ensure accuracy of words and phrases from the audio recording to the written transcript. Third, I sent the transcripts back to the individual participants to review for accuracy.

Transcripts were analyzed using QSR International NVivo. Early memoing occurred during the initial and intermediate coding and included taking notes while analyzing materials and reflective journaling. Data storage and security measures included developing a data collection matrix for locating and identifying information for the study, indexing the data gathered, and producing backup copies. To protect the privacy of participants and identifiable documents, all materials were assigned a numeric code and each participant was assigned a pseudonym. The numeric code included type of institution and chronological order of interview participant (e.g., Case 1_Interview 1, Case 2_Interview 2, etc.). Pseudonyms were assigned alphabetically based on the date of interview completion (e.g. Allen, Benjamin, Catherine, Daniel). These identifiers were used to track the statements of each participant and corresponding institution throughout the data analysis phase. Audio recordings were kept in a

secure password-protected server to which only I had access. The data was stored until the analysis was completed and will be retained securely for five years, after which the data will be destroyed.

Researcher's Positionality

Worldview

This research study was grounded in the constructivist paradigm. Constructivism focuses on the meanings within a participant's experience, such as their views, values, beliefs, feelings, assumptions, and ideologies (Creswell & Guetterman, 2019). In the application of the constructivist framework, the narrative is explanatory, discursive, and probing of the assumptions and meanings for study participants (Creswell & Guetterman, 2019). Throughout this qualitative research study, I provided space for each participant to share their lived experience and construct meaning around their point of view. Via this approach, the reflections and experiences of the participants built a shared interpretation of learning and decision-making strategies during the pandemic.

Researcher's Role

The constructivist approach also incorporates the values, experiences, and priorities of the researcher and "does not minimize the role of the researcher in the process" (Creswell & Guetterman, 2019, p. 441). I am a researcher at the University of Maryland, Baltimore, where I have held a variety of roles since 2010. I have over 15 years of experience working in higher education settings, including student affairs, academic affairs, and research administration. From 2010-2014, I managed graduate student wellness and coaching initiatives on campus, which made mental health and resiliency important throughout my career. In my current role in the School of Pharmacy, I oversee qualitative research projects as well as capacity building, training,

and education scholarship. I work alongside faculty, staff, and trainees in conducting qualitative research and developing, implementing, and evaluating training programs.

I experienced the COVID-19 pandemic from multiple points of view: as a staff member, a researcher, and a graduate student. As an employee who supervises staff and students at a higher education institution during the COVID-19 pandemic, I experienced my institution's response and public communications on changing processes and protocols. I have significant familiarity with my institution as a health professions education campus, and some familiarity with the other institutions included in this study. My confidence levels regarding my safety, my team's wellbeing, and day-to-day activities were directly impacted by the decisions of our campus's senior administrators. In my research capacity, I had to stop conducting in-person human participatory research and later, adapt methods from in-person to virtual environments for focus groups, interviews, and training and education programs. Finally, as an online graduate student, I experienced the implications of the decisions made by faculty and senior administrators in my own learning and development as a student and scholar.

Clarifying researcher bias from the beginning of the study is important, so that the reader understands my role and inherent biases that will impact my research inquiry (Merriam, 1998). My past and current experiences, biases, prejudices, and orientations have shaped the methodology and will shape the interpretations of the data. For the duration of this study, I utilized bracketing to mitigate my potential preconceptions and assumptions related to the research. Bracketing is situated between the researcher and the research project as a mechanism to both protect and enhance the research process (Tufford & Newman, 2012).

To support the credibility of this study's data collection, results, and interpretation, I clarified my positionality, biases, values, and experiences, to this study's participants. I also

acknowledged my beliefs and biases early in the research process so readers could understand my positionality. Creswell and Miller (2000) noted that it is important for individuals to “bracket or suspend those researcher biases as the study proceeds ... [and] reflect on the social, cultural, and historical forces that shape their interpretation” (p. 127), using methods such as memo writing and reflexive journaling (Tufford & Newman, 2012).

Data Collection

In-depth, semi-structured, individual interviews were conducted to gather data on the learning and subsequent decisions made by senior administrators throughout the COVID-19 response. The individual participants in this study were selected due to their relevant experiences with the phenomena of study, their accessibility, and first-hand experiences to potentially provide leads to additional information (Creswell & Poth, 2018). Conducting one-on-one semi-structured interviews provided opportunities for individual reflections and elicited information that a participant may otherwise have felt uncomfortable sharing in a group setting. All participants received a copy of the informed consent document (Appendix B) and were asked to provide verbal consent at the start of the interviews. Interviews occurred on a virtual video conferencing platform, Zoom (Zoom Video Communications Inc., 2016). The interview protocol followed Creswell and Guetterman’s (2019) design guidelines, which included the development of a purpose statement; asking five to seven questions; and using action verbs that support neutral, exploratory language (e.g., generate, discover, understand, describe) instead of directional cues (e.g., relate, compare, cause, influence). The use of neutral language versus directional language ensured that the research and my positionality or bias did not improperly influence the responses or direction of the participants responses (Creswell & Guetterman, 2019).

I developed the interview protocol based upon Bandura's (2023) SCT framework and current literature, collecting data on the following components:

1. Human agency, including forethought, self-reactiveness, and self-reflection
2. Social modeling and observational learning
3. Motivational processes
4. Learning by doing, or enactive learning
5. Perceived self-efficacy

The full interview protocol, including main questions and probes, is available in Appendix C. These questions explored insights into the use of SCT components, including learning behaviors and self-efficacy. The protocol included open-ended and focused questions based upon the core components of the SCT model, including human agency, observational learning, motivation, enactive learning, and self-efficacy. The semi-structured nature of the protocol allowed for additional probing, dependent upon the unique narratives of each participant's experience. To protect confidentiality, each participant was provided a pseudonym. The length of interviews ranged from 32 to 58 minutes ($M=44$). See Appendix E for a summary of the ranges and means of interview duration, journal entries, and number of pages of transcripts per case. Interview transcript page length ranged from 8 to 17 pages ($M=12$), with 158 total transcript pages. I utilized reflexive journaling techniques during and immediately after the interviews regarding my own reactions, reflections, and thoughts on the participant's responses during the interview. The date range for 10 total journal entries was September 1, 2023 through October 9, 2023. All interviews were audio-recorded, provided participant consent, to ensure accuracy and credibility in the transcription and data analysis phases (Creswell & Poth, 2018). Demographic information including gender, race, ethnicity, and years of leadership experience

was collected via a follow-up internet survey after completing the interview. This data were collected to ensure diversity of participants in the study sample. To ensure confidentiality and privacy of the participants' identity, only aggregate data was reported.

Credibility is the congruence of findings to reality and is supported through researcher reflexivity, peer debriefing, member checking, and triangulation (Creswell & Miller, 2000; Stahl & King, 2020). I utilized reflexive journaling techniques during and immediately after the interviews regarding my own reactions, reflections, and thoughts on the participant's responses during the interview. Additional methods to support credibility are listed in the trustworthiness section.

Data Analysis Plan

Data analysis entailed deductive and inductive processes using open, axial, and selective coding to narrow the data into themes (Creswell & Guetterman, 2019). I followed Creswell and Guetterman's (2019) six-step process for analyzing and interpreting data:

1) *Preparing and organizing data for analysis.* After verbal consent by the participant, each interview was audio recorded and auto transcribed. Audio recordings and transcripts were reviewed for accuracy. Once reviewed, the transcript was sent to the participant for member checking. Each participant had three weeks to review and respond.

2) *Exploration and coding of data.* A preliminary exploratory analysis initially occurred to gain familiarity with the data (Creswell & Poth, 2018). I began coding by using key terms from the prompts within the interview protocol. For example, I used the following prompt, "In your current leadership capacity, reflect on when you first became aware of the COVID-19 pandemic. Had you ever considered a situation or planned for how to respond to this type of crisis?" to create the initial open codes of "first awareness of COVID-19," "prior pandemic

planning,” and “prior crisis experience.” This early analysis facilitated my in-depth exploration of the data and helped me understand how each participant navigated their leadership experiences during COVID-19. While the interview protocol provided a provisional “start list” for codes, I remained flexible and developed additional codes. Early memoing occurred during the initial and intermediate coding and included taking notes while analyzing materials and reflective thinking.

3) *Using the codes to develop descriptions and themes.* In the second and third coding cycles, codes were collapsed into more specific categories as the data were further compared. As themes emerged, codes were added, expanded, reduced, or removed. Codes were then compared iteratively across participants to evaluate commonality, saliency, and saturation of categories. Additional categories were developed to highlight themes, theoretical links, and rich descriptions that provided evidence of key recurrent themes.

4) *Representing the findings through narratives and visuals of aggregate research data.* After analyzing the data, I constructed figures and tables to display aggregate data as well as wrote up the findings to answer the research questions.

5) *Interpreting the meaning of the results for the subsequent discussion and conclusion sections in this chapter,* which demonstrate the relationships between findings and implications for the field, as well as theoretical links.

6) *Conducting validity checks to ensure accuracy of the findings.* Data were organized and stored as digital files following a naming system protocol. Storage of files followed a secure storage protocol. Confidential documents with private identifiable information, such as audio recordings, were stored in a password-protected electronic system on Microsoft OneDrive, a secure cloud-based network. Transcripts were analyzed using QSR International NVivo. As I

conducted the data analysis, I used reflexive journaling techniques to assess my positionality in relationship to the emergent findings.

Trustworthiness

Trustworthiness refers to the credibility, transferability, dependability, and confirmability of study results and interpretation (Guba & Lincoln, 1994). Credibility is the congruence of findings to reality and is supported through researcher reflexivity, peer debriefing, member checking, and triangulation (Creswell & Miller, 2000; Stahl & King, 2020). Following self-disclosure of my assumptions, beliefs, and biases, I utilized bracketing methods, such as writing memos and reflexive journaling, to separate my internal suppositions from the external suppositions of the research phenomena (Creswell & Miller, 2000; Tufford & Newman, 2012). I also employed peer debriefing, or “exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (Lincoln & Guba, 1985, p. 308). This process ensured I remained honest and aware of my researcher positionality, tested the working hypotheses as data analysis occurs, and provided an outlet for emotions and feelings that may have clouded my judgment (Lincoln & Guba, 1985).

Credibility

Credible findings can also be ensured through triangulation, or using multiple and different sources to verify each individual recollection (Lincoln & Guba, 1985). By interviewing multiple individuals from each organization, these individuals provided corroborating evidence, perspectives, or erroneous recollections and presented structural corroboration across multiple data sources and stakeholder groups (researcher, participant, and dissertation committee reviewer). These efforts supported the credibility of the results and ensured inconsistencies, if

identified, were addressed during data analysis (Creswell & Poth, 2018). If and when discrepancies arose, I reached out to the individuals regarding the discrepancies and asked for follow-up statements or remarks to include in the data analysis or discussion of findings.

Transferability and Dependability

The second component of trustworthiness is transferability, or how applicable the study findings may be to a broader setting. To ensure transferability, I included fully detailed (thick) descriptions that contained contextual information about the study sites, participants, research methods, and time frames for the entire duration of the project (Stahl & King, 2020). The third component is dependability, or the quality and reliability of the research (Lincoln & Guba, 1985). I ensured dependability by using bracketing methods, or separating data into observations and interpretations during the analysis stage (Stahl & King, 2020). I also used inquiry auditing strategies with my dissertation committee members, who examined the process of data collection and analysis, as well as scrutinized the product, for acceptability (Lincoln & Guba, 1985).

Confirmability

Finally, confirmability is a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln & Guba, 1985). I employed two techniques to ensure confirmability of this study. First, I created a detailed audit trail through which my procedures, raw data, analyzed data, and the final report was audited by my dissertation chair and reviewed by the qualitative methodologist on my dissertation committee. Second, I utilized member checking by returning the transcribed data to the participants to ensure confirmability. All participants received a copy of their transcript to verify accuracy of the reporting.

Ethical Considerations

Prior to conducting any portion of human subject research, the protocol for this study was approved by the University of Maryland, Baltimore's Institutional Review Board (IRB). The identities of participants were not disclosed to anyone outside of the researcher, faculty advisor/co-PI, and dissertation committee members. Interviews took place in private rooms with only the interviewer/moderator present. The data collected during this study was kept confidential and did not contain any participant personal identifiers. Electronic documents were password protected on a cloud-based secure network. While these confidentiality protocols were enabled, there was still a risk of a breach of confidentiality, which was included as part of the informed consent process.

Summary

This study explored the critical elements of how senior administrators at four distinct higher education institutions learned and made decisions during the first two years of the COVID-19 pandemic. By using a qualitative multi-case study approach, this study explored the similarities and differences between how senior administrators learned and made decisions across different types of institutions. Case studies and qualitative methods were used as they are best suited for exploration and discovery to address phenomena for which little may be known. Participants were senior administrators recruited via purposeful sampling from four institutions within a U.S. East Coast public university system.

This study included in-depth 60-minute individual interviews that followed an interview guide to ensure credibility of responses across participants. The data analysis was completed through deductive and inductive coding, following Creswell and Guetterman's (2019) six-step process for analyzing and interpreting qualitative data. Credibility was supported through

researcher reflexivity, peer debriefing, member checking, and triangulation. I utilized bracketing methods, such as writing memos and reflexive journaling, and employed peer debriefing to ensure I remained honest and aware of my researcher positionality, tested the working hypotheses as data analysis occurred, and provided an outlet for emotions and feelings that may cloud my judgment. Triangulation provided structural corroboration across multiple data sources and stakeholder groups and all participants received a copy of their transcript to verify accuracy.

CHAPTER FOUR: RESULTS

Introduction

The purpose of this qualitative multi-case research study was to explore how senior administrators at four higher education institutions within a state university system learned and made leadership decisions throughout the first two years of the COVID-19 pandemic. The chapter begins with an overview of the participants, including self-disclosed demographic information and leadership experience, and a description of each case. This is followed by a description of the development of themes then the results are presented with supporting quotes. The chapter concludes with a summary of the findings.

Participants and Case Studies

Participants

To maintain confidentiality, I did not include descriptive information that could identify participants per case. Thirteen participants consented to and completed interviews for this study. The roles of these individuals included: President or Chancellor ($n=3$), Provost or Vice President/Chancellor of Academic Affairs ($n=2$), Vice President/Chancellor of Administration and Finance ($n=2$), Vice President/Chancellor of Student Affairs ($n=1$), Vice President/Chancellor of University Advancement ($n=1$), Vice President/Chancellor of Communications ($n=2$), General Counsel ($n=1$), and Chief of Staff ($n=1$). Four individuals identified as women and nine as men. Nine individuals identified as White, and four, Black. Participant ages ranged from late 40s to late 70s, and years of general leadership experience ranged from 10 to 40 years, with 6 to 40 years in academia, and a range of 5 to 27 years of employment at their current institution. Table 1 provides an overview of mean years of leadership experiences across cases. General leadership was defined as the total number of years

of leadership experience across different settings, whereas academic leadership was leadership experiences specific to educational settings. Participants self-reported this data.

Table 1: Mean Years of Leadership Experience

Mean Years of Leadership Experience (n=13)

Experience	System Administrative Office (n=4)	Residential University (n=4)	Professional University (n=4)	Historically Black University (n=1)
General leadership	29	28	33	33
Academic leadership	22	16	28	28
Current institution	9	9	18	5

Case 1: System Administrative Office

The system administrative office oversees more than 10 higher education institutions and three regional higher education centers. The system enrolls over 130,000 undergraduate and 38,000 graduate students and employs over 16,000 faculty and 25,000 staff across the state. The system office, overseen by the Chancellor, provides leadership and support to the system’s other institutions and Board of Regents. The system office includes leadership in academic and student affairs, administration and finance, advancement, communications and marketing, research and economic development, and government relations. Four individuals (n=4; 30.7%) from the system office participated in interviews representing 30.7% of the total study sample. Their pseudonyms are Benjamin, Catherine, Ilana, and Lucas.

Case 2: Residential University

Case 2 is a comprehensive university in a rural region of the state. All full-time first-year students are required to live on campus. The Rural University enrolls approximately 4,000 undergraduate and 700 graduate students. About 80% of students qualify for in-state tuition and 40% of undergraduates identify as racial/ethnic minorities. These four individuals represent 30.7% of the total study sample. Their pseudonyms are Allen, Daniel, Jordan, and Michael.

Case 3: Professional University

The professional and graduate campus is in the state's urban center. The Professional University enrolls approximately 6,700 students, predominantly graduate (85%), across several nationally ranked professional schools. These four individuals represent 30.7% of the total study sample. Their pseudonyms are Ethan, Francesca, Gina, and Henry.

Case 4: Historically Black University

Founded as a public land-grant institution, this university enrolls approximately 3,300 students, 93% of whom are undergraduates. Located in another rural region of the state, different from the residential university of Case 2, 45% of students live off campus and 90% of students qualify for some form of financial aid. One individual (7.9%), whose pseudonym is Kenneth, participated in an interview.

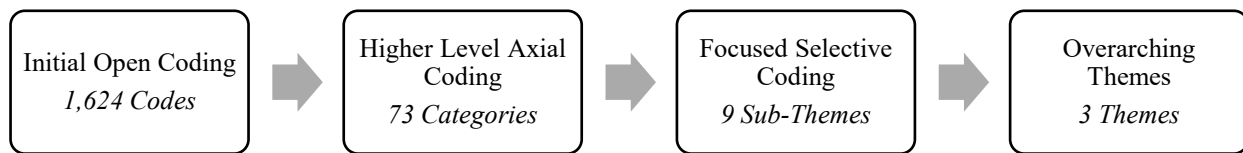
Theme Development

I coded the transcripts line-by-line and labeled emerging codes ($n=1,624$) to demonstrate my understanding of the experiences shared by study participants. This initial analysis supported the development of early and exhaustive categories ($n=73$), which also ensured I included all transcription data in the analysis. Text segment codes were then transformed into in vivo codes (Creswell & Poth, 2018). In vivo code examples include, but are not limited to, "lockdown",

“systemness”, “working hard”, “responding to politics”, “getting away”, “working environment”, and “trust.” Codes were consolidated into themes or categories, potentially layering or interconnecting themes, depending on the data. Once the codebook was finalized, I assessed the interpretations of the information and related themes to the analytic framework, creating a point of view, and displaying and reporting the data to account for results. Figure 1 shows the theme development process. The codebook is provided in Appendix F and shows how the 73 axial codes were organized into the nine subthemes, as well as the number of files and references associated with each axial code.

Figure 1: Theme Development Process

Theme Development Process



Results

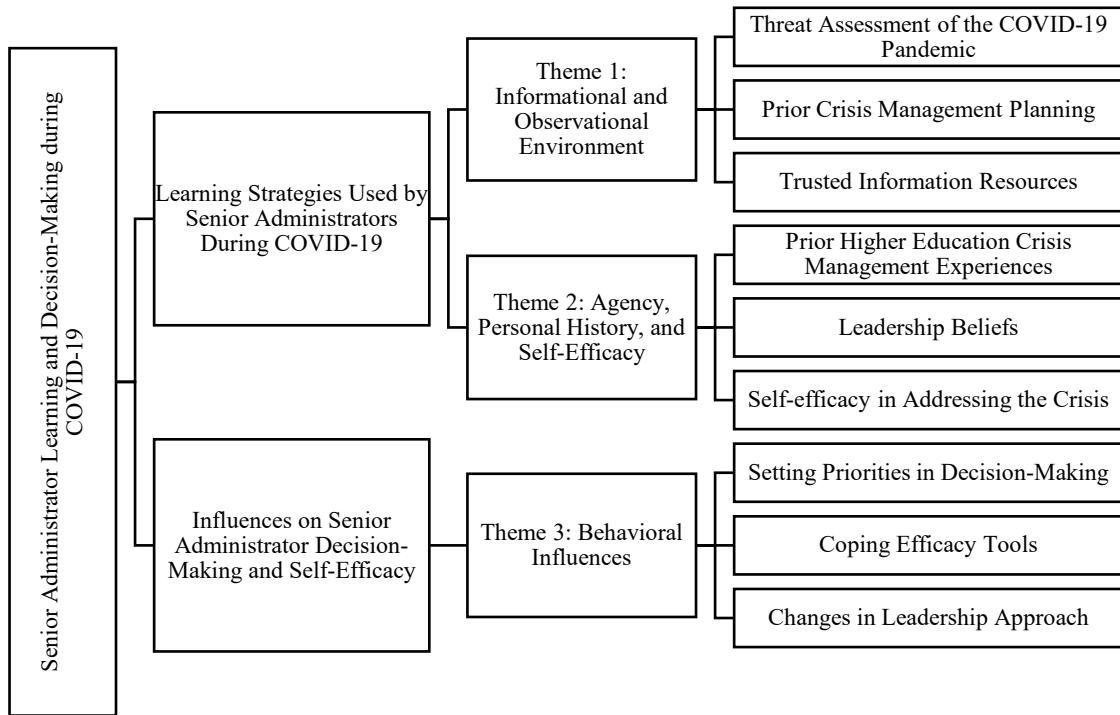
This study explored the learning strategies used by senior administrators and influences on their decision-making during the first two-years of the COVID-19 pandemic. Within learning strategies, participants explored their initial knowledge and understanding of the COVID-19 pandemic, prior crisis management planning and trusted information resources for learning and awareness. Participants also shared how prior learning via experiences in crisis management and leadership beliefs influenced their self-efficacy for decision-making.

In the exploration of the influences in their decision-making during COVID-19, participants reflected on the activities within and beyond their institutions, tools and resources to manage stress, anxiety, and threats because of the pandemic, and decision-making activities,

particularly in communication strategies and the role of collaboration. Finally, participants reflected on what they learned about leadership, or how their leadership approach changed due to this experience, and what recommendations they had for leadership development. Figure 2 shows the final themes and sub-themes from my data analysis.

Figure 2: Resulting Themes and Sub-Themes

Resulting Themes and Sub-Themes



The research sub-questions that guided this multi-case study are answered in this section with supporting quotes. Below is a description of how themes were developed followed by a discussion of the themes and sub-themes. The results are organized by the two sub-questions and within three main themes, emulating the triadic reciprocal causation constructs within the SCT model: environment, personal, and behavior (Bandura, 2023).

Learning Strategies Used by Senior Administrators During COVID-19

Learning in this study refers to the processes senior administrators used to *understand and respond* to the COVID-19 crisis in their leadership capacity. To answer the initial research sub-question, I explored the first two themes of environment and personal factors, with three sub-theme categories under each. For the institutional or organizational environment, the three sub-themes were (a) threat assessment of the COVID-19 pandemic, (b) prior crisis management planning, and (c) trusted information resources. For personal beliefs on responding to the pandemic, the three sub-themes were (a) prior experiences in higher education crisis management, (b) leadership beliefs, and (c) self-efficacy beliefs. The data analysis revealed that all leaders across cases used observational learning and participated in modeling activities to develop self-efficacy in their response to COVID-19.

Theme 1: Informational and Observational Environment

In the section below, I present the results of what participants shared regarding the information and resources they sought to understand the situation and prioritize how to respond to the emerging COVID-19 crisis.

Threat Assessment of the COVID-19 Pandemic

Nearly half of the respondents ($n=6$, 46.2%) noted an initial awareness of the onset of the COVID-19 pandemic between October 2019 and January 2020. The six individuals who identified early awareness mentioned information coming from either a health professional or an emergency management resource. For example, two respondents from the Professional University cited sources from the international scientific, medical, and research community. Francesca gave a specific example from her emergency management team:

December of 2019, it must have been at a Deans and VPs meeting, [the emergency management team] came to a Deans and VPs meeting to update us on what was happening in China. And they were requesting funds...so that they could get ready, and they were presenting it as a very dire situation, as though it was, you know, imminent. And it was happening. Now nobody else in the country was talking like that really, certainly not the White House or any place else. We left the meeting, and we're shaking our heads like you've got to be kidding me. They're exaggerating. It's never gonna happen. And about a year ago...I said, boy, were they right? And were we wrong!

Individuals across the cases who identified earlier knowledge mentioned colleagues with health profession backgrounds as reasons for early knowledge, such as Lucas from the System Administrative Office stated, "I think the system did a great job because we had so many resources within the system." Referring to another institution in the system, he continued:

You know [Professional University], the healthcare professionals, the virologists, the links that they had. I think we had more information early on than perhaps an independent college or university or a public institution that might be outside the system. There's a lot of information sharing, so I think it was an orderly transition. And we saw it coming.

Similarly, Ilana noted, "I was in this current role with a different [senior administrator], one I'd been working with for years. She gave me insight early that something was brewing, and she had a medical background, so she understood it differently."

The remaining respondents ($n=7$, 53.8%) noted that they first became aware of the COVID-19 pandemic in late-February to early-March 2020. These individuals identified media and the news reporting on conditions in Asia and Europe as initial sources of information and

acknowledged the immediacy in responding to the emerging COVID-19 pandemic. Daniel provided the following example:

It was a Tuesday, and we decided we were going to play our sports in the spring...The next day the NCAA comes out and announces they've cancelled March Madness. And immediately everybody pivoted and said, all of our sports are cancelled. Twenty-four hours before there was a group of 12 Presidents, none of whom voiced an opinion about not playing sports at all, and then in 24 hours later, none of us were playing sports. So, it was a very quick turnaround for institutions.

Prior Crisis Management Planning

Most participants ($n=9$, 69.2%) shared prior emergency management or crisis management experiences, though these experiences varied, and many respondents stated they never considered planning for a pandemic. Respondents remarked on planning for other types of emergencies, such as a biochemical event, environmental disaster, or active shooter event, while simultaneously stating perspectives, like Lucas', "I don't know that it was anything anybody seriously planned for." Michael stated, "I think it's safe to say that our crisis management plan for the university did not include anything for a pandemic back at that time."

Other participants provided a differing narrative. Participants from the System Administrative Office, Residential University, and Professional University all referenced prior plans for responding to infectious disease outbreaks, such as the avian flu and severe acute respiratory syndrome (SARS) in the early 2000s. While several individuals reflected that these plans were developed, they were unsure how reliable they would be in the contemporary COVID-19 crisis. For example, Allen stated:

I think we could have been better prepared by really keeping our pandemic response plan up to date, not just drafting it in 2009, and I was part of the team to draft it... That's the kind of emergency management joke, plans are worthless when you just put them on the shelf, and that's what we did with it, we threw it on the shelf.

Catherine shared:

We all had [avian flu] plans. They were years old. Nobody had looked at them after the kind of panic wave had ended. I suspect most of what was in them probably wouldn't have been relevant in terms of, it had been so long. But the fact that nobody, and I was talking to my Federal Government friends as well, nobody had kept up... we had to start all over again.

Participants from the System Administrative Office, Residential University, and Professional University also referenced emergency management or enterprise risk management groups active on their respective campuses ($n=8$, 61.5%). Several participants from Professional University mentioned the pre-existing efforts to build up their emergency management department prior to the pandemic. These efforts supported rapid response for the campus, as

Gina shared:

While [the emergency management team] had not practiced for this, their experience, their training is an all-hazard training. So, they applied the same conceptual framework to approaching this situation as they did any other situation, and it truly helped to organize us... The right people involved in the meetings, the topics of conversations, etc., and then how we continue to form, add to the framework. It was extremely, extremely helpful.

Similarly, Allen discussed a similar emergency management situation at his institution:

Although we did other emergency preparations...fires and things like that, we weren't really thinking pandemic wise. We quickly located that plan and started the process of seeing where we needed to update and what key stakeholders on campus we needed to bring to the table.

Participants from the Professional University reflected on how they were prior leaders in emergency management for the university system. Lucas shared a convening exercise that demonstrated how the Professional University's resources improved readiness for the other institutions:

I remember, just before the lockdown, there was a kind of a tabletop exercise at [Professional University], where they brought together, for a full day, presidents and senior executives from all the campuses to talk about the virus, to talk about the situation, to talk about what might the response be nationally, and what our response might be. So I think we were reasonably well prepared.

Participants shared how prior planning had to be adapted to fit the needs of COVID-19, an ambiguous, complex, and constantly changing situation. A broader description of information resources and their impact on crisis response follows below.

Trusted Information Resources

Participants from across cases ($n=12$, 92.3%) cited government and scientific sources for pandemic information, including the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Food and Drug Administration (FDA), and state government and county health departments. Confidence in these sources; however, varied. Catherine stated:

We were getting real time information from the FDA, from the NIH, etc., and could cut through the murk of what you were reading about [in] the papers, or what you were

seeing on TV. Because early days, what we didn't know was a much bigger list of things than anything we were sure of.

Allen noted suspicion in the accuracy of the media:

Some people would say, well, I saw this on such and such news network last night, and a lot of the networks are talking about this. And I'm like, Well, here's an article about this from Science Magazine that actually cites a study.

Beyond resources from government agencies, eleven participants ($n=11$, 84.6%) described looking toward health professionals for guidance, with several highlighting the value of the Professional University as part of the system. Francesca reflected:

All the other schools seemed to look to us, because we had research expertise and the medical expertise. And it was our guys who were on the Governor's task force. It was our guys who were on the front lines caring for the patients. So we, as an institution, were the ones who were being looked to.

Another resource was the university system itself ($n=12$, 92.3%). Almost all of the participants reflected on the consistency and frequency of meetings across the system's institutions and leadership, facilitating knowledge transfer, rapid response plans, promising practices, communications, and teamwork. Catherine shared:

We had a couple of instances where we had universities in proximity to one another and certainly in the same county who wanted to make different decisions. We also encouraged the Presidents to talk amongst themselves. So, for instance, [these two universities] is a classic, you know, they're so close to one another that regardless of what it is they do, if it's something they're doing to treat their faculty one way or another, or staff or students, there's cross talk...

Other resources included news and social media ($n=8$, 61.5%) and national organizations in higher education ($n=5$, 38.5%). The next section highlights findings related to personal variables shared by respondents, including values, attitudes, and self-efficacy beliefs.

Theme 2: Agency, Personal History, and Self-Efficacy

The following section describes how the senior administrators' prior crisis management experiences and beliefs about themselves influenced how they understood and responded to the COVID-19 pandemic.

Prior Higher Education Crisis Management Experiences

Interview participants had between six and 40 years of higher education leadership experience – a wide range. Nine participants shared how prior academic leadership experience ($n=9$, 69.2%) supported their ability to respond to the COVID-19 crisis. Kenneth from the HBCU shared:

This is my sixth university... And so those experiences were very helpful to me...I was able to draw on those experiences and try to utilize some of those techniques and cherry pick the experiences that applied to this institution...This is a different place and different time, different culture. And so to me you have to cherry pick which items apply that you can utilize from your past and your history.

Gina described how her experiences in operations management helped in decision-making:

How do we set up classrooms if we are going to have classes? What do we do with air filtration systems? The experience from my previous job in terms of operationalizing things, that helped me in terms of leadership and COVID, because problems were broken down in my mind to an operational level. And whenever you're dealing with something

huge, breaking it down makes it more or less overwhelming. I think that past experience helped me through COVID.

Daniel discussed how prior experience as a dean supported his ability to bring together a team:

I was a dean for five years at [another university], and one of the things I was most proud of was bringing the chairs together, to work as a team. I think we had a very good response and recovery team that felt they could be very open with things and felt empowered to make decisions.

Beyond academic leadership experiences, prior experiences in crisis management ($n=9$, 69.2%) – both large- and small-scale – influenced a leader’s confidence in responding during the pandemic. For example, Henry mentioned “I was in New York for 9/11, having to respond to that. Those are all experiences that you learn and grow from and bring those lessons to bear when you're faced with another crisis.” Daniel shared his experience in a natural disaster:

I was at [another University] when Hurricane Floyd hit East Carolina. I was a department chair. This is back in 1999, we lost a student who died drowning in a parking lot...I volunteered with the Red Cross for about a week and learned a lot about dealing with crises and that you manage them on a day-to-day basis. I think it was important for me.

Participants credited these experiences as anchors in their ability to respond, communicate, and cope during the COVID-19 crisis.

Experiences in the health professions ($n=6$, 46.2%) also supported confidence in responding to the COVID-19 crisis. All four respondents from the Professional University referenced health professions training as an important factor for their confidence in their campus response. While they noted specific appreciation for the campus’ subject matter experts in

infectious disease, virology, and vaccine development, they also discussed how a health professions approach framed the response for their campus. Ethan explained further:

This has been a career for many people in the medical field, because you're always dealing with this kind of thing. It doesn't have to be a surgeon, could be any number of different kinds of medical professionals. Nurses are in the same category...Because I had a team around me, because I knew a lot of people here, and because I had confidence that I and those around me were up to this job.

Leadership Beliefs

The next two sections provide the results of participants' beliefs about leadership, the context to how and what they learned, and their own perceptions of self-efficacy to lead during a crisis.

Each participant was asked about their leadership approach and beliefs in responding to the pandemic. Collaboration ($n=11$, 84.6%), attitude ($n=10$, 76.9%), and communication ($n=5$, 38.5%), were the most salient themes across interviews and cases. Many participants reflected on the importance of cultivating a high functioning team as part of their leadership approach. For example, when asked about their own capabilities in responding to the pandemic, Catherine talked about her confidence in her team because it had already been established:

I had trust and confidence in the leadership team, which makes it easier. I have my part to do, and I am very trusting and confident in my teammates to do their parts. I didn't have to spend any time second guessing whether somebody was like smart enough, or competent enough, or dedicated enough. Everybody just worked whatever they needed to work, myself included...because it's what we had to do to get the job done.

Attitude was another important characteristic for leaders. As Ethan shared:

I spent a career as a [health professional]. You just can't let stuff like that get you down. Okay, you've got to keep your focus on the ball. Now, I know it was 3 years. It was a long haul, true, but still that's kind of what you do? It's 2 am. You gotta go. It's all about attitude...if you have an attitude, Woe is me! You're gonna be miserable. If you have an attitude of bring it on, then you're gonna do fine with it.

Benjamin from the System Administrative Office stated the importance of demonstrating a positive attitude under pressure as a leader: "I had to be the strong one because...everybody looks to the leader for clues. Fortunately...I do have an optimistic outlook, even when the worst problems occur. So I had to mirror, I had to demonstrate that."

Attitude was also a factor and will be addressed in self-efficacy beliefs.

COVID-19 was an evolving crisis, which meant communication about decisions evolved, too. Lucas explained the challenges to communication as:

If you think of it as concentric circles, there's an inner circle where people have good information, and then with each circle outside the decision-making circle, you find that oftentimes things get lost in translation. And then to the outermost circle...people that they may be going on rumors. And so what you're trying to do is inform as many people as you can and to make sure that mistakes aren't made, and that sort of thing.

Allen stated the importance of communication as a duty to leadership, "I think a big part of being a leader is giving people good information, and giving them a lot of information." The role of communication in crisis and campus response will be provided in more detail in the next section.

Most participants shared the importance of collaboration, attitude, and communication in decision-making. Michael provided the following example:

My philosophy about decision-making in general is that you make your decision based on the information that you have at the time, make projections about impact as best you can. But we were in a situation, as everybody was, where the facts kept changing, could be daily. It could be hourly in some cases. And so we were changing on the fly as we got new information.

The importance of decision-making and sharing those decisions, even with changing circumstances, was important to many leaders. As Kenneth stated aptly, “Because without data, people will, I hate to use this word, but make up their own data. And it's usually negative.” Ilana summed it up in terms of her own confidence:

I felt like I had the knowledge, or was able to get the knowledge, to do what we do...convene folks, share information, relay information, get people together to have conversations, understand different ways of making meaning of things or different ways to make decisions. So I've felt enabled to still do that work. And it became even more important because we were talking about something no one had ever gone through before. But I felt equipped, I was well assured.

Self-efficacy in Addressing the Crisis

Self-efficacy influences both motivation and confidence in responding to environmental stressors. In responding to COVID-19, all participants ($n=13$, 100%) shared how beliefs about their capabilities influenced their confidence in crisis management. Ethan shared:

Without the arrogance part, I would say to you, what's the problem? This is an emergency. People are dying. I know how to deal with that. You deal with that by making sure you're paying attention to what's important. So I wasn't nervous about that at

all. In fact, from a certain point of view, that was something I was exceedingly comfortable with, because that's what I did my whole life.

The importance of collaboration, attitude, and communication were salient influences on self-efficacy. Gina remarked:

Going into this, knowing the intellect and the camaraderie around our leadership team, that together we would be able to figure out things, that gave me a sense of confidence. It wasn't a matter of we're gonna run and hide and stick our heads in the sand, and oh, my God, woe is me! It's like every day we have to keep making the right decisions, for the campus requires a lot of communication, thinking about every aspect of things...it really, truly became business as usual. You got up, you had meetings all day long, all you talked about was COVID...and that's what you did.

Several participants ($n=4$, 30.8%) reflected that their comfort with ambiguity and to make decisions confidently during times of uncertainty was a feature of their crisis management during the pandemic. For example, Catherine reflected:

The [senior leader] tells me that like him, I'm one of the few people he knows who uncertainty and ambiguity doesn't bother them. I didn't have the stress level of having to make decisions or make recommendations in a period of there are fewer things we know than we don't know. That just doesn't bother me. It's actually something that I get excited about and I enjoy. But I recognize that most people thriving and ambiguity isn't a natural thing, I think, for human beings.

Key Findings on Learning Strategies Senior Administrators Used During COVID-19

Senior administrators used a variety of resources for guidance in the preliminary months of the pandemic, including government entities such as a Centers for Disease Control and

Prevention and state and local health departments, scientific and research organizations, health professionals and health systems, other higher education institutions, and institutional leaders and response teams within their university or university system. When faced with an unknown situation, participants often looked to peers – individuals in similar contexts, such as other leaders within the university system – for immediate guidance and action. Senior administrators were less likely to use news and social media as trusted sources of information.

When asked about prior learning, most participants had considered emergency management planning, but few had specifically prepared for a public health crisis of this magnitude. Prior experiences in crisis scenarios, such as emergency management during natural disasters, military experience, and health professions experience positively influenced feelings of self-efficacy in the ability to process new information to make decisions rapidly during the pandemic.

Influences on Senior Administrators in Decision-Making and Self-Efficacy

To answer the second research sub-question, I explored the third theme of behavior, with three sub-theme categories. The three sub-themes were (a) setting priorities in decision-making, (b) coping efficacy, and (c) changes in leadership approach. The data analysis revealed that perceived self-efficacy had an influence on leadership confidence and performance for participants, as many shared beliefs that they have the time and resources to solve the problem, were open-minded, and could assess information and alternatives in a rigorous manner. In addition, these influences impacted a person's ability to cope with stress, anxieties, and adverse events.

Theme 3: Behavioral Influences

In the section below, I report how participant learning influenced decision-making in response to COVID-19, what tools they used to manage anxiety and stress, and how their decisions and subsequent learning impacted ensuing leadership decisions and activities.

Setting Priorities in Decision-Making

Learning enabled from the trusted sources discussed in the previous sections directly influenced how senior administrators made decisions at their own institution and their subsequent confidence in these decisions. Not only did this learning influence the individual self-efficacy, but the collective efficacy of the team in overcoming the challenges faced by COVID-19. Participants determined priorities based upon communications from these sources, such as federal, state, and local health departments, and within their institutional system network.

As the participants responded to the crisis, they prioritized the following in their decision-making: health and safety ($n=12$, 92.3%), continuing institutional operations ($n=12$, 92.3%), communicating effectively ($n=12$, 92.3%), and continuing education and research ($n=12$, 92.3%). Safety was at the forefront of almost every participant's response. Across all cases, safety was the highest priority. Catherine shared the following anecdote demonstrating president-level priorities from early in the pandemic:

The chair of the board and the chancellor turned to me in April [2020] and said, 'Doesn't matter what it costs. You're going to have to figure it out because we're going to do whatever it takes to keep everybody safe.' And I needed no convincing.

Effective communication was another significant topic across participant interviews. Participants discussed the importance of the communications teams, who were often behind the scenes. Francesca shared how impressed she was with the communications staff:

It constantly kept changing, and the letters that we would send out. And you don't just send a letter, it has links, and then the links have to go somewhere right? ... It is mind boggling how much is there. And they constantly, constantly got it right, and got it done on time. And that's all people had to rely on. All they had to rely on was the information that we were pushing out to them. Now you could go to the CDC. And people did, and we would send people there. But it was our responsibility to take care of our employees. And what they would get elsewhere was secondary. That wasn't our concern. It was up to the teams that I lead to make sure that our employees, faculty, staff, and students felt informed, felt safe, and felt cared about.

Communication was a critical component of “visible leadership,” even if it was expressing uncertainty. For example, Ethan shared:

How do you keep everybody organized from a communication point of view? Here's what we're doing. Here are the things we can provide to you. Here's how you can get your job done. Here's how we can give you the information and/or whatever that you might need. Eventually that was PCR testing. Eventually that was vaccination. Eventually that was a lot of things. But to keep those things in motion, so people knew what was going on around them and felt somebody was paying attention, that you had visible leadership.

Despite an overall commitment to continuous communication, participants shared how little recognition communications teams received. Kenneth remarked:

You can't over communicate enough...because people say, ‘well, I haven't heard anything.’ And you're telling me, you haven't heard anything. That's not true. We got it on the website. We sent out a newsletter. We mailed you hard copy and we sent emails out. And yet you will say I haven't heard anything.

Henry made similar comments:

Sometimes you couldn't always provide answers to questions that people have...and people are getting their information from different sources. Sometimes you're in the position of having to say, 'well, that's not our understanding of it, and that's not accurate.' And then yet, of course, it became a political issue, and then having to navigate communicating around that as well. So that was absolutely challenging.

Continuing education and research functions were additional priorities for leaders, and where campuses differed most in their respective responses. From the System Administrative Office, the four participants acknowledged that, as stated by Benjamin, "we didn't want to halt the provision of higher education, public higher education to the citizens of (...). And again, to the degree possible, we wanted to sustain the development of new knowledge, the research mission that we had." Ilana further described the types of decisions that needed to be made regarding such efforts:

It went from, how do we get students home, to, are schools closing, are the universities closing? Okay, the schools are closing. How [are] the faculty gonna teach? What kind of support do faculty need to do this online thing? What if students don't have broadband access at home? How are they gonna learn? What policies need to change? What about tenure? It was all short term, fixing problems as they hit.

Respondents reflected on how their institution was unique to others within the system.

Michael shared:

We're obviously in a very different area. You talk about a regional school, I mean, there's no school in the system like us. Our region is different and a lot of times, at least initially, it kind of got to us more slowly than other schools."

Similarly, “We are a different kind of a university,” said Francesca, because “we don't have undergrads or sororities or fraternities; those cause all kinds of potential crises that most people in my position have to deal with.”

Campus leaders, particularly those from rural settings, reflected on how their decisions to return to campus differed from those in more urban settings. For example, Michael talked about how his institution brought students back earlier than other campuses:

If you were to look at the different schools across the system, we actually were able to have people on campus more so and earlier than others, because of things that we set up...when students came back onto campus, residence halls were set up in a way that there was extremely minimal contact. We redesigned classrooms, so that we had 6 feet between the seats, but we did a little more than that. And so if you were taking Poli-Sci 101 on Tuesday/Thursday and Tuesday, you might be in the classroom with half of the class, and Thursday you were in your dorm room online. We are a residential campus, and we tried to the extent that we could to stay with that.

Similarly, Daniel corroborated this information, as he described how their institution changed the campus calendar for the fall 2020 semester to return to in-person teaching:

We started two or three weeks early and we finished at Thanksgiving. I told the Chancellor, because again, I was getting a lot of data...There was a model that indicated that we were going to get the virus out here at the beginning of November. Because we get colder sooner, and there was an opportunity for it. [The next wave] did hit in the second week of November, so it was the right call. We lost about four days of class, but if we had gone with the normal thing, we would have lost two or three weeks of class. So I felt good about that decision that we made.

All 13 participants (100%) cited the role of the university system as a factor in their campus response plan, sharing experiences that highlighted its role as an asset, as well as an occasional challenge. Benjamin provided an overview of how institutions convened during the pandemic:

None of us knew what we were doing and what was coming...I would say for most of the three years, it was once a week, Wednesday [Zoom] calls. It was not just the presidents, they could have whoever they wanted on the call. People generally had their cabinets, their leadership teams. Sometimes, [we had] the shared governance leaders, if they could make it...And because people were from different settings in terms of their institutions, everybody offered best practices.

Catherine shared her experiences about coordinated responses activities that occurred across the system as well as within the institutions:

This is part of the role when you have a system that has a number of universities, sometimes our job is to be the cover for something. So early on there were a couple of places where it was the Chancellor who issued something. All the Presidents had already signed off on it, but it was done in lock step. Then, as we went, we always were having the conversation, is this something the Chancellor issues as kind of an edict? Is this something the Chancellor sends out as an, in general, and then everybody writes their own? Or is this something where the system's going to remain silent, and each President is just going to do whatever they do?

While several participants remarked that the system was an asset for communication, resource sharing, and leadership, some participants shared frustrations. Jordan from the Residential University shared:

It was both helpful and frustrating, to have sort of an oversight organization, [System Administrative Office]...One mistake we made was, and this gets back to the [system] aspect. Everybody agreed that we weren't going to put out any communications for the fall 2020 until...like June 14th. Out of the 12 institutions, I think four or five ended up putting stuff out before then. We tried to play by the rules, and that was way too late. We should have been communicating with the campus community May, early June. Hey, don't have any answers for you. But there's a group of people working on this. And we're concerned for the health and safety of the campus. And you know, if we can, we think it's best for everybody if we can hold classes in the fall, but hang tight. We're working on it. And we didn't do that, so you had a lot of misinformation.

When reflecting specifically on response teams, many participants expressed their appreciation for the interprofessional or intercollegiate groups, which created a structure for communication and response in a time of uncertainty. For example, Catherine said:

We recognized that we are facing something that we had limited information about and yet had to make very consequential decisions very rapidly. And what I remember most clearly is we used video conferencing multiple times every day to convene various groups. There was a daily Presidents call, there was a daily functional group call, so convening vice presidents of admin and finance, the academic affairs people were convening the student affairs, and a lot of it in early days was, what's going on? What do we know? What don't we know? What decisions are right in front of us?

Benjamin spoke about how teamwork positively impacted his confidence and ability to lead:

The [staff] that reported to me rallied. They rallied to the point where we were meeting virtually three times a week. And people looked forward to those meetings, even though

the topics were unpleasant and challenging. But people looked forward to those meetings because we were working as a team to, as I've said before, protect people and continue our mission. That was not the challenge.

Participants mentioned additional priorities, including the shifts in remote work and classroom environments ($n=8$, 61.5%), testing and vaccination resources ($n=8$, 61.5%), maintaining campus equipment and facilities ($n=7$, 53.8%), and financial solvency ($n=5$, 38.5%).

Coping Efficacy

Coping efficacy was an emergent finding in this study. Participants shared different strategies they used to manage their feelings and respond to the crisis. Their ability to utilize stress and anxiety reduction tools influenced their overarching self-efficacy or perspective in decision-making during COVID-19.

Family, peer, and social connection were the most prominent coping mechanism reported by participants ($n=11$, 84.6%) for managing stress, anxiety, and fear. Participants mentioned how focusing on family connections provided comfort, happiness, and brought family members closer together, even if it did not reduce stress. For example, Francesca shared what daily life was like working at home: “I'd run upstairs to make them their lunch... and tell them to shush while I'm stirring the mac and cheese while I'm on my meeting. Having them there was not less stressful necessarily, but it was comforting.” When discussing the importance of maintaining peer and social connections, participants frequently used words and phrases such as “comfort,” “connection,” and “trust.” For example, Allen talked about social bonds:

We developed this bond of trust, and that we can't let the weight of what we're doing disrupt our ability to personally connect with one another and accept each other for our

ability to be able to use sarcasm and throw some humor into this and build some trust among us.

Lucas reflected on the value of social and professional connections by relating it to military reunions:

Veterans that come back to reunions, like Pearl Harbor or Normandy, and you know you may not have been at the same institution or organization, but you have the same experiences and challenges, and joys and sorrows. And so those initial meetings [after COVID-19] ... were really helpful, reflecting both personally and professionally.

These reflections dovetailed into stories about working environment ($n=10$, 76.9%) during the pandemic, and value of maintaining workplace connections. Whether the senior administrator was working remotely or maintained a physical presence in the office, respondents discussed the importance of reflection, collaboration, and structure for their communication and decision-making. For example, Ilana shared:

I can't imagine being in an organization where the people in charge were panicking or the people in charge were unknowledgeable, or the people in charge were, you know, uncommunicative, and none of that happened. So, I think part of what worked out for many of us in our leadership experience that the layers of leadership worked.

Exercise and physical activity were other consistent themes across the participant responses ($n=9$, 69.2%). Most participants did not specify what type of physical activity they performed, however common answers included walking, using home gym equipment such as a treadmill or weights, and golfing. At least two participants shared how their physical fitness improved during COVID. For example, Henry said, "during COVID, I was the fittest I had been in the last 20 years." Similarly, Daniel reflected, "I did more outside exercise and activities than I

did before.” Another participant, Gina, shared how breathing exercises helped her mental health: “Breathing exercises, intentionally slowing my mind and my body down to keep me from getting in a chaotic frame of mind to stay focused and intentional. Those were my biggest tools in the very, very beginning.”

Participants shared additional coping tools, including getting away ($n=3$, 23.1%), hobbies ($n=2$, 15.4%), and spirituality and religion ($n=2$, 15.4%). When asked to reflect on what they wished they had, participants responded that they wished for more discipline in taking time off and self-care ($n=4$, 30.8%), having better crisis management plans in place at their institution ($n=3$, 23.1%), and more successful transitions for in-person social connections to online settings ($n=2$, 15.4%).

Changes in Leadership Approach

Developmental experiences, such as feedback, challenge, and support, can motivate leaders to learn and change based upon the new knowledge acquired. Did learning influence the senior administrators’ approach to leadership during COVID-19? All participants ($n=13$, 100%) noted changes to their attitudes or behaviors around collaboration and building trust during COVID-19. Francesca reflected:

I don't think the way I make decisions changed. I've always been a pretty quick decision maker, and when I make a decision, it's made...But I think what changed for me as a leader after that experience was taking people's experiences more into consideration.

Trust was mentioned in 12 interviews ($n=12$, 92.3%), often correlated with teamwork. Ilana said:

I would say [a foundational component to our crisis management] was just having good relationships with people. I can't think of a thing I learned or did besides having

established their trust in me or us, and then our trust that they could do what they needed to do too.

Gina responded:

I don't think I would have wanted to go through this process with any other group of leaders. I trusted the people I worked with. I trusted that they cared about the right things. And everybody was very inclusive. They wanted to hear from all the voices in the room and make the right decision. Everybody was properly motivated.

Lucas corroborated these sentiments about teamwork with the following:

I had a lot of those relationships already which, when you're in a crisis situation, you can't afford to get to know each other. You know, you really have to have a level of trust, and so I feel like that was already there for me. And that helped me. Could we have been better resourced? Yes. But I think, given the resources we had, we did a pretty good job.

Ethan shared his approach to leadership:

In my opinion, it was making sure that I, as leader, made sure that every team member spoke his or her mind, that they didn't sit back in the corner and think, 'those guys don't know what they're talking about.' But I'm not talking. I'm not gonna disagree with. No, you gotta pull people out and say, 'What do you think, Hillary?' That's what it was about. It was making sure that people had a voice.

The unique circumstances of the pandemic created opportunities for seasoned leaders to identify emerging leaders. Michael said:

We learned we had a number of people on campus who had a skill set that maybe we hadn't recognized in their day-to-day operation...we found that we had a lot of potential leaders on campus that we might not have recognized before.

Jordan shared that he thought he was one such emerging leader:

It's funny... when [the university president] put me in charge of the team, I don't lead the charge. How can I support you? Running out there and leading people. I was less confident in my abilities than my boss was. We had a conversation after the fact, and he's like you're not prone to emotional decisions, and by not having a division underneath you, you see the bigger picture of all the divisions, and you don't sort of see the problem through your division's eyes first. And I so think that's kind of how I drew the short straw. I mean it was beyond anything I had done before from a leadership capacity. So I was rather nervous.

The changed work environment also influenced how senior administrators worked with their teams and made decisions during COVID-19. Most participants ($n=11$, 84.6%) discussed the discomfort of moving to a hybrid environment and the changes they made in their leadership and communication style to manage teams differently. For example, Francesca shared:

We're still struggling with, what is the future of work? Where do people work? Where can they work? We know where they would like to work, but where can they? Where should they? Before this, I did have in the back of my head, if you're not at your desk, if you're not visibly doing work. Are you really doing work?... And of course we can work in so many ways. You know you can drive home and be on a meeting. A lot of what we need to do to work is think, and that's one of the things that suffered during the pandemic. There was never any time to just think, and that's when thinking was so important. So I think what's changed for me is how I view other people's...I don't want to say ability to work...ways of working. And the pandemic really shone a light on that in a way that really helped me internalize that.

Many leaders did not have a clear sense of what the future of work or learning looks like. For example, Daniel expressed his concerns:

The campus environment... there's been some good things that have come out of it. I'm seeing more people doing outdoor stuff...But I really do worry about what higher ed is. I mean, we have the challenges that you can read about in a Chronicle, about your public perception...But a lot of it is impacting us and how we get students engaged again and engaged extracurricularly, academically, [and] how we provide the wraparound support they needed.

Communication skills were the next most acknowledged change ($n=8$, 61.5%). Several individuals placed a high value on consistent and transparent communication to their campus community and other stakeholders. For example, Henry said:

I learned that transparency works. And it's good to be transparent, even in a crisis, when you don't know everything, it's okay to say, I don't know. We don't know. We don't have that information at this point. We got a lot of feedback from the university community about how valuable those were, and how great it was to know that there was a leadership team that seemed to be working well and that we were communicating and constantly sharing information. People appreciated that.

Kenneth discussed the importance of “systemness” for resource management, which also influenced confidence, communication, and decision-making, and operations in responding to the COVID-19 pandemic:

We shared resources. We shared communication, kept the lines of communication open, and we identified large amounts of test kits that were available. So we used our, and we

use this term that we use a lot back then "systemness" right to help with the logistics of the individual campuses.

Decision-making was another area of change, particularly around institutional values and work-life balance ($n=5$, 38.5%). Gina said:

I think values have shifted and the change in values have affected decision-making. It all goes back to that work life balance, when you have something so scary happen in your lifetime. And you work so hard during that time, it really does help you adjust your personal priorities in terms of what's important and what's not...to spend time on yourself. That became more important. And people need mental breaks.

Key Findings for Influences on Senior Administrator in Decision-Making and Self-Efficacy

Participants learned because of their own experiences navigating decision-making during the pandemic as well as through observational learning. These enactive experiences included how institutional leaders worked together toward their campus COVID-19 responses, such as communication plans, continuing education and research operations, ensuring health and safety, and planning and implementing return to campus protocols.

Self-efficacy played a significant role in a leader's framing of the pandemic and the challenge it set for decision-making. Participants shared their beliefs about collaboration and teamwork, political influences, interpreting of data, and overarching leadership beliefs to provide context for their personal self-efficacy and perspective on collective agency. When discussing how to manage fear, stress, and anxiety during the crisis, participants often utilized family and social connections, exercise and physical mindfulness, and reliance on colleagues or comparison to others as coping tools.

When asked to reflect on changes to their leadership approach due to what they learned during the pandemic, participants shared positive changes to be more inclusive of collaborative exercises, increased communications, and an increase of patience and empathy toward others. Finally, many participants shared a desire to learn from these experiences to improve preparedness for future challenges as well as in leadership development exercises.

Outlier Data and Findings

One finding deviated from the research questions and did not align with the identified sub-themes. To close each interview, participants provided recommendations for leadership development, including advice specific for emerging and seasoned leaders. This section discusses the outlier data.

Leadership Development

Overarching recommendations included ensuring value and development of a good leadership team and relationships ($n=10$, 76.9%), formal training in enterprise risk management ($n=6$, 46.2%), communications training ($n=5$, 38.5%), and encouragement for leaders to show up authentically in their roles ($n=4$, 30.8%). Connections were important for building trust.

Benjamin shared:

If I had to tell people to get ready for whatever else may be coming around the corner that we can't see now, it would be to enhance the level of teamwork across their span of control, to find ways to get people to open up to each other to trust each other, to come to a team approach. If you can do that, then I think, no matter the crisis, nobody's gonna feel alone, least of all the leader.

Formal training was also a key component for leadership development. Henry said:

Not only crisis management, but crisis leadership. There's a whole body of research on literature on what crisis leadership is and how one engages in it that I think leaders don't intentionally seek out. COVID should teach us that... You can't wing it in a crisis. Crisis by its nature is hard to predict even when you're dealing with it. But there are some strategies that are useful, and so we should be more intentional about making sure that leaders are knowledgeable.

Participants ($n=7$, 53.8%) shared characteristics for what they believed made good leadership during a crisis. These characteristics included ability to manage ambiguity and chaos ($n=2$, 15.4%), being a team player ($n=2$, 15.4%), having good communication skills ($n=2$, 15.4%), exhibiting initiative and project management skills ($n=2$, 15.4%), demonstrating empathy and self-awareness ($n=2$), and challenging expectations and maintaining curiosity ($n=2$, 15.4%).

Remarking specifically on recommendations for emerging leaders, mentorship and professional development by seasoned leaders came up in multiple interviews ($n=8$, 61.5%). For example, Kenneth reflected:

I often talk to people that are 15-20 years my senior, and ask them, what would they do different if they could go back in time and be my age. And then I get that advice, and so that allows for me to get some of their wisdom to utilize it to benefit me that they may not be able to benefit from... But I'm living in that very moment. And so I try to utilize those things.

Jordan mentioned getting involved early in areas an emerging leader would want to strengthen:

Get involved as early as you can with stuff that makes you uncomfortable. I was probably in my mid-thirties before I felt comfortable speaking in public or speaking at a

conference. Had I gotten involved in something, whatever activity that I could have done public speaking in my twenties, I would probably be better at it now in my fifties.

Summary

Participants reported how prior skills, strategies, beliefs, and attitudes influenced their ability to lead, manage, and cope during the COVID-19 pandemic. All participants engaged in some form of observational learning, predominantly from within their own institution or across the university system. These findings emerged consistently across the unique institutional cases and contexts. While several participants shared specific experiences about modeling crisis response plans, which facilitated the development of skills and confidence, participants also shared how their internal self-efficacy beliefs influenced learning and decision-making at individual, team, and institutional levels. As participants embraced their role as crisis management leaders, their experiences informed recommendations for future crisis planning and leadership development.

Perceived self-efficacy had significant influence on leadership performance. Participants viewed COVID-19 as a challenge, rather than a crisis, which demonstrated beliefs of individual, proxy, and collective agency as well as coping efficacy. As the participants perceived that they had the resources and skills to make it through the period of uncertainty, they shared the strengths and promising practices that occurred throughout the crisis period. Participants who demonstrated confidence in their pandemic response were more likely to communicate more consistently with other leaders or teams or involve outside expertise to inform decision-making for their institution. Participants also shared their values of teamwork and collaboration and consistent communication in service to keeping their communities safe and continuing their institution's educational mission.

CHAPTER FIVE: DISCUSSION

Introduction

The purpose of this qualitative multi-case research study was to explore the learning and decision-making processes of senior administrators at four public higher education institutions during the first two years of the COVID-19 pandemic. As presented in Chapter 4, I analyzed the data and explored salient themes and sub-themes to answer the two research sub-questions: 1) what strategies did senior administrators' use to learn during the initial two years of the pandemic? and 2) how did the strategies influence senior administrators' self-efficacy in decision-making during the pandemic?

The findings of this study demonstrate emerging evidence on the importance of observational learning and modeling on how leaders learned during the COVID-19 pandemic, as well as the importance of self-efficacy and its influence on a leader's decision-making, during times of significant and rapid change. In this chapter, I discuss the findings considering the literature and central research question: how did senior administrators at four higher education institutions learn and make decisions throughout the first two years of the COVID-19 pandemic? I also discuss connections between the findings and social cognitive theory, such as how higher education leaders framed their agency, self-efficacy and experiences with feedback and modeling to navigate decision-making during the pandemic. After interpreting the findings of this study, the theoretical, empirical, and practical implications are discussed. The chapter and dissertation conclude by explaining study limitations and presenting recommendations for future research.

Senior Administrator Learning and Decision-Making during COVID-19

The results of the qualitative interviews provided evidence that senior administrators across higher education institutions demonstrated components of Bandura's (2023) social

cognitive theory (SCT) in their learning and decision-making during the COVID-19 crisis. Three distinct SCT constructs – environment, agency, and behavior – achieved salience during the data analysis phase, supported by nine sub-themes. In the interpretation of the findings, I look to these three major constructs and connect them to published findings in the field and key components within SCT, such as feedback and modeling experiences, perceptions of agency and self-efficacy, and enacted experiences to navigate decision-making and leadership development.

Interpretation of the Findings

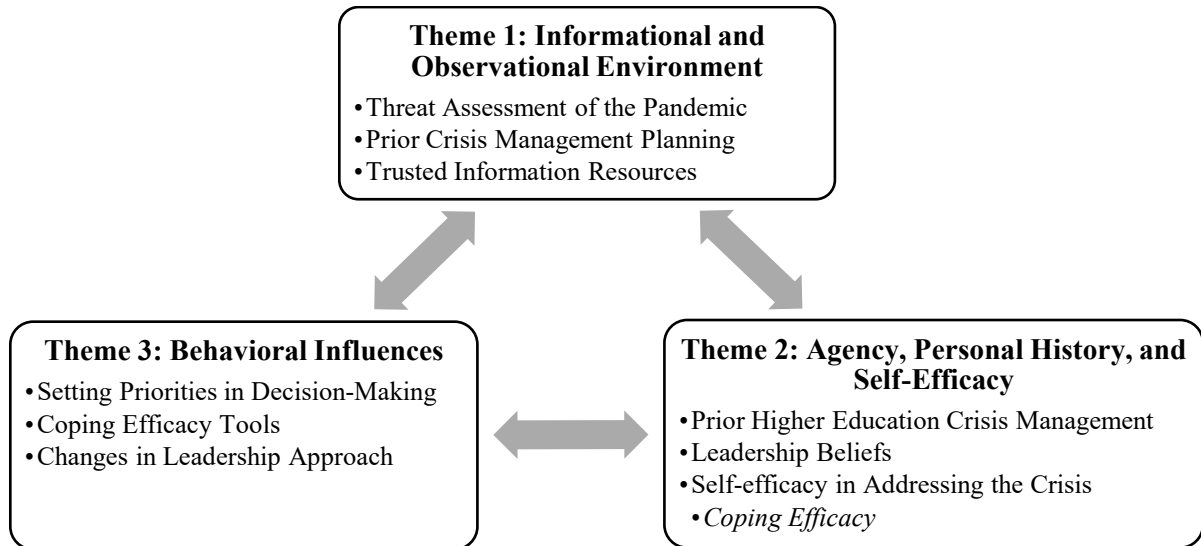
Participants reported their unique leadership experiences and the influence their leadership journey had on their agency and motivational processes. Participants also shared similar experiences in their observational learning and social modeling for the duration of the COVID-19 pandemic response. Although the experiences going into and during the COVID-19 crisis varied, participants shared reflections on their self-efficacy and changes in leadership approaches because of these crisis experiences, which demonstrated learning. Figure 3 highlights the findings as mapped to Bandura's (2023) model of triadic reciprocal causation.

Figure 3 demonstrates the mutual interaction between the informational and observational environment (environment), agency, personal history, and self-efficacy (personal), and behavioral influences (behavior) in learning and decision-making (Bandura, 1988). An environment influences how an individual uses available resources to perceive their abilities (personal determinants) and make decisions (behavioral determinants), and vice versa. Within the environmental context, the senior administrators considered the threat or challenge presented

by the pandemic, their prior experiences with similar or different crises, as well as available resources for trusted information.

Figure 3: Themes Mapped to the Model of Triadic Reciprocal Causation

Themes Mapped to the Model of Triadic Reciprocal Causation



Personal determinants such as prior experiences in higher education, capability and leadership beliefs, and self-efficacy influenced their readiness to act. The third component is behavioral, or the enactive experiences of decision-making, utilization of coping tools, and then subsequent changes in behavior due to enactive learning. While these three factors influence one another, they neither necessarily provide the same strength of influence nor occur simultaneously (Bandura, 2023). According to Wood and Bandura (1989), “it takes time for a causal factor to exert its influence and to activate reciprocal influences. Because of the bidirectionality of influence, people are both products and producers of their environment” (p. 362).

One emergent finding was the influence of coping efficacy as both a personal and behavioral influence. An individual’s belief in their capabilities affects the amount of stress and anxiety they experience in a threatening situation (Bandura, 2023). A person who believes that

they cannot manage a threat may experience high levels of subjective distress and physiological arousal, which impairs cognitive functioning (Bandura, 2023). Then, according to Bandura (2023), “people avoid potentially threatening situations and activities not because they are beset with anxiety, but because they believe they will be unable to cope with the situations they regard as risky (p. 62)”.

Therefore, a high level of coping efficacy, or a belief in the power to control a threatening situation, lessens the crisis, or moves the crisis to be viewed as a challenge to be overcome. As a personal influence, participants’ high self-efficacy in addressing the ongoing crisis increased their coping efficacy in turn. As a behavioral influence, participants articulated using different tools for coping with stress, anxiety, and threats posed by the pandemic, which helped them to manage and respond to the crisis. Coping efficacy will be discussed further in a later subsection.

Environment

An individual’s environment can “set the direction of personal development through the competencies, values, and interests these influences promote” (Wood & Bandura, 1989, p. 365). While the section on behavior addresses how participants and their respective case institutions responded to and recovered from the COVID-19, participants from all cases discussed how their environment influenced their behavior, demonstrating Bandura’s (2023) framework of triadic reciprocal causation. Participants from the System Administrative Office discussed how their unique setting in an administrative office prioritized communication and resource support across the university system, whereas participants from the Residential University and HBCU identified their rural environments as a justification for behavior, such as changing the academic calendar, and returning to campus earlier than other schools in the system. The enhanced readiness of the Professional University, compared to other institutions within the system, facilitated mastery

modeling opportunities for participants from the other three cases, as well as demonstrated improved self-efficacy for the Professional University participants.

As described in Chapter 2, crisis management and higher education literature previously articulated the increase in responsibilities for senior administrators in the prevention of, preparing for, responding to, and recovering from potential crises (Bataille & Cordova, 2014; Booker, 2014; Brown et al., 2015; Fortunato, 2008; Gigliotti, 2016, 2019; Mitroff et al., 2006; New Directions for Student Services, 2008; Ruben et al., 2021; Varma, 2011; Zdziarski et al., 2007). In the prevention stage, senior administrators are encouraged to foster campus climates and cultures through training and awareness that reduce risks or occurrences of crises, particularly for potential human-made crises (Booker, 2014; New Directions for Student Services, 2008). When a participant had either institutional resources for crisis planning and management, prior experiences in crisis management, or trusted sources of information within their network, these individuals tended to display more confidence in their decision-making during COVID-19.

Observational Learning and Social Modeling

Modes of learning affect perceived self-efficacy and motivation (Bandura, 2023). In observational learning, people learn new behaviors by watching the performances of others (Bandura, 2023). Modeling provides demonstrations for how particular rules can be applied and adjusted to fit changing conditions, so feedback and corrective modeling may also improve competencies, morale, and productivity within organizations (Bandura, 1988). By assessing the informational and observational environment, higher education leaders were able to see someone similar to them succeed or sustain an effort and hence increase their belief in their own capabilities (Bandura, 1988; Wood & Bandura, 1989) during the pandemic.

In observational learning, people learn new patterns of behavior by watching the performance of others (Bandura, 2023). Due to the public health nature of the COVID-19 crisis, many participants shared that they initially looked to government agencies such as the Centers for Disease Control and Prevention (CDC), the Governor's office, and state and local health departments. However, when seeking information on how to act, participants across cases referenced the role of the Professional University as leaders and models, for emergency management and public health best practices, including polymerase chain reaction (PCR) testing and later, providing vaccinations, in part because of the medical and clinical resources available to them. Nonetheless, the Professional University had also spent considerable resources to develop and expand their emergency management prevention, preparedness, and response teams in the years immediately prior to the onset of COVID-19, therefore serving as another model for crisis management across the system.

In prevention and preparation, participants from the Professional University self-identified as models for the system and highlighted how they were able to provide modeling for the other institutions as they prepared to respond to COVID-19. Gina shared,

It was clear in our initial sessions with the leadership team that many people in that room had not dealt with an emergency before, were not familiar with the structure of dealing with an emergency, and I can't count how many times people would look to me specifically and ask me questions. Ask me, 'what do I think?' while fewer people were offering their thoughts at that time...I think so many schools did not have a full-blown emergency management team, we were leaders in that.

Gina's sentiment was corroborated by other participants, both those who participated in the referenced exercise and those who later looked to the Professional University for information

and response plans as the pandemic unfolded. These findings are also supported by literature on leadership self-efficacy (Epitropaki et al., 2017). Epitropaki et al. (2017) conducted a systematic review that addressed the interpersonal or dyadic relationship between leaders and their teams. Although focused on leaders and teams, “leadership and identity research is focused on the relationship in the ‘space between’ the leader and the followers and in the ways in which they shape each other's identities in this interpersonal space” (p. 113). In relation to the present study, leaders intentionally observed others whom they believed had more advanced capacity to inform their decision-making, and conversely, those who believed they had advanced knowledge intentionally modeled decision-making to inform others of best practices.

Collaboration

Collaboration was another salient point within the university system environment. Chatzipanagiotou and Katsarou (2023) outlined three main categories of challenges faced during COVID-19: 1) logistical challenges due to lack of infrastructure, equipment, funding and efficient planning; 2) academic challenges associated with supporting staff members and learners – cognitively and emotionally - in the transition to emergency and remote learning; and 3) organizational challenges related to obstacles ensuring and safeguarding the physical and psychological safety of school and community stakeholders. Participants viewed collaboration as both a resource and a response in COVID-19 decision-making. The transcendence of collaboration across the responses demonstrated the importance of social modeling before, during, and after the COVID-19 pandemic. Henry shared the value of cross-communication because it gave “an understanding of how they were viewing the issue, how they were responding, and whether or not there were lessons that we could learn from other institutions and other colleagues’ responses.”

Focusing on collaboration as a resource within the environment, participants shared its value both for the overarching university system and within the individual case studies. Prior to the pandemic, the system had regular communications meetings across different leadership groups for “cross-talk” as presidents, provosts, or chief financial officers, among others. The established rapport across these groups provided a baseline environment for sharing and learning during the pandemic, especially as the frequency of these types of meetings went from once a month to multiple times a week during the onset of COVID-19.

How leaders view and inform each other’s efficacy has become an increasingly popular topic in the literature. Hannah et al. (2008) conducted a systematic review on leadership efficacy and the influences between leader, follower, and collective agency. The authors highlighted the bidirectional influence leaders and teams have on each other and “at critical times may reinforce the leader to continue forward, which in turn may bolster the follower’s efficacy, resulting in a pattern with each collectively ‘spiraling up’ the efficacy of the other” (p. 12). This demonstration of role modeling not only increases self-efficacy, but also that of the collective group. In the next section, I further expand on the role of personal beliefs as a medium of agency.

Personal Beliefs

An individual’s self-efficacy is one’s own judgements “of what one *can* do in a current or prospective situation, not statements of intentions of what one will do” (Bandura, 2023, p. 53). While modeling facilitates the development of skills, self-efficacy facilitates behavior and decision-making. These decisions may lead to patterns, setting goals, and overcoming obstacles, which can increase a leader’s resilience to potential future failures without being easily discouraged (Bandura, 1988). Leaders who view cognitive ability as a learnable skill “seek challenges that provide opportunities to expand their knowledge and competencies...errors are

regarded as a natural, instructive part of an acquisition process” (Wood & Bandura, 1989, p. 372). The following subthemes demonstrate how participants reflected on their leadership beliefs and prior experiences to support goal-setting and behavior, which will be addressed in the subsequent section.

Prior studies outlined the personal leadership resources (PLRs) needed in times of crisis (Brion & Kiral, 2021; Ramos-Pla et al., 2021), including: 1) cognitive resources, such as specific knowledge on problem-solving, systems thinking, and domain-specific knowledge; 2) social resources, such as communication, perception and management of emotions, and acting in an emotionally appropriate way; and 3) psychological resources, such as optimism, self-efficacy, resilience, and proactivity. These resource needs stem from human, or “personal qualities that are not merely a static result of environment and biological determinants” (Bandura, 2023, p. 6). Bandura states that there are three modes of human agency within SCT: individual, proxy, and collective (Bandura, 2006). Individual agency is a person’s influence on their own behavior and environment; however, most people do not have full direct control over their lives; they exercise proxy agency, or “by influencing others who have the resources, knowledge, and means to act on their behalf to secure the outcomes they desire” (Bandura, 2006, p. 165). Collective agency, or how individuals pool their knowledge, skills, and resources to work together to shape their future (Bandura, 2006), is the third type of agency.

Individual, Proxy, and Collective Agency

Self-efficacy impacts leadership development because it is associated with “judgments about one’s ability to learn and master a new skill and then use that mastery to accomplish a task in the performance situation” (Machida & Schaubroeck, 2011, p. 462). The ability to navigate

ambiguous or unknown circumstances is correlated with strong self-efficacy and resilient leadership during challenging scenarios (Avolio & Hannah, 2008).

Participants demonstrated all three modes of human agency in their respective navigation of the COVID-19 crisis. Participants reported how their individual agency stemmed from prior experiences, demonstrating learning from prior behavior impacts current beliefs on capabilities. Whether it was in academic leadership, as a health professional, or in enterprise risk management, these prior experiences framed what participants believed was in their capacity to do and contribute. Participants reflected on how they focused decision-making, as well as their coping strategies, on what was within their control. For example, Henry shared:

I always focus my leadership on things within my control. And COVID-19 wasn't within my control. I could control very little what was happening with COVID-19...And I let the people who were working on vaccines and other mitigation approaches to address the issue of the virus itself. Let those folks be focused on that. But if I focused on what was happening with COVID-19, I would feel like I'm not accomplishing anything.

Henry not only focused on his individual agency, but also how proxy and collective agency influenced others to act on his behalf and pool resources to shape their institution's pandemic response. Lucas shared a similar belief in proxy and collective agency:

I think there was a collective sense. Some of those days were pretty dark, and we didn't quite know what we were dealing with. But I think there was a sense of okay, this is a challenge. How are we going to meet it? How are we going to all pull together and get this fixed?

Reflections on proxy and collective agency reinforce the reciprocal causation of collaboration and teamwork in learning and decision-making. Participants across cases shared

how prior rapport within their own leadership teams – as well as having some framework for an emergency response team in place – facilitated confidence and rapid response when campus leaders were called to action. As stated by Catherine:

Obviously, I'm not a medical professional or public health professional, but I'm a big believer in being part of a team. I'm also a big believer in you're better when people around you are really good than when you're like the superstar. And we all knew it.

Leadership development is learning and “the life cycle that promotes, encourages, and assists in one’s leadership potential” (Brungardt, 1996, p. 83). How participants experienced leadership growth and learning in the past influences how they lead in the present (Hannah et al., 2008). As literature has emerged on higher education leadership during COVID-19, leadership beliefs regarding resilience, adaptability, and preparing for future campus culture, demonstrate observational and enactive learning (Acton et al., 2022; Blankenberger & Williams, 2020; Duke University, 2020; Fernandez & Shaw, 2020a; Liu et al., 2022; Marshall et al., 2020).

Machida and Schaubroeck (2011) discuss how self-efficacy influences leader development, influences of contextual factors, and the role of efficacy-performance spirals and self-correcting cycles for agency. The authors articulated that while developmental experiences such as challenging experiences and corrective feedback could influence self-efficacy, “no study has examined the relationship between challenges and self-efficacy in leader development” (p. 464). Nonetheless, “leaders with high learning orientation are likely to be inclined to constantly evaluate their learning, progress, and room for improvements, and these tendencies should generally prevent them from developing extremely high or low self-efficacy” (Machida & Schaubroeck, 2011, p. 466). This study may indeed provide preliminary evidence to support future research in this area.

Perceived Self-Efficacy

Self-efficacy, or one's own judgements "of what one *can* do in a current or prospective situation, not statements of intentions of what one will do" (Bandura, 2023, p. 53), is at the core of human agency. Similar to what was reported in the literature, study participants focused on clarifying the perception of a situation, the scope of the issue at hand, and demonstrate flexibility and confidence, all key components to effective crisis leadership (Gigliotti, 2019). These foci impacted not only individual and collective self-efficacy, but the response and long-term recovery for case institutions.

Revisiting the available literature, only one study examined the influence of health professions faculty on college and university COVID-19 response (D. Johnson et al., 2022). While this study highlighted that institutional presence of health professions faculty can be a valuable resource to support best public health practices, it did not inform how an HPE lens impacted institutional leadership and crisis management.

Sources of perceived self-efficacy include selection processes (choices of activities and environments), cognitive processes (analytic thinking and goal setting), motivational processes (effort and task persistence), and affective processes (choices of activities and environments) (Bandura, 2023). Participants shared a variety of sources when describing personal beliefs about their capabilities as well as their campus response. Henry's quote in the agency section above demonstrates the selection and affective processes of self-efficacy: he focused on what he could do and what was within his control. Meanwhile, Ethan's quote above demonstrates cognitive and motivational processes: goal-setting and task-persistence.

As the saying goes, perspective shapes reality. McCormick and Martinko (2004) posited that when leaders optimistically reflect on their skills and expertise, they have increased self-

efficacy and increased leadership effectiveness. Most participants ($n=9$, 69.2%) said they had an optimistic worldview, which correlated with their confidence as leaders to navigate COVID-19. Although the other participants ($n=4$, 30.8%) did not say they had an optimistic approach, they framed the crisis as a challenge to be addressed, and believed they were up to the challenge. Research has shown that if a leader views a crisis as a challenge, then self-efficacy facilitates their belief that they have the time and resources to solve the problem, can be open-minded, and assess information and alternatives in a rigorous manner (Tjosvold, 1984). If that leader viewed a problem as a crisis – not a challenge – then they were less likely to seek new information or to incorporate different ideas into decision-making and may even remain vigilant to past courses of action (Tjosvold, 1984). Lucas shared the following sentiment:

There are a lot of other comparisons. In life or in the military, where you know you're up against [is] insurmountable, what seems like an insurmountable obstacle, and if you focus only on that, you tend to be paralyzed. So, you have to look at it, okay, what can we do? How can we? Let's not look at enormity of this. What are some of the resources and tools we have at our disposal? And what do we do now to help address some of these issues and work together to get it done?

Complementing the discussion on agency, self-efficacy motivates action. Even if the outlook is unknown, or feared, viewing a crisis as a challenge to be overcome led to positive actions.

Francesca provided the following perspective:

I believed that we could manage, rise to the challenge, and manage. Now I did not believe that we'd do everything right, and I'm sure we didn't, [that] the first time we would get it right...I think that we corrected and tried harder and better the next time...

Coping Efficacy

Coping efficacy emerged as both a personal and behavioral influence in decision-making. People make decisions about the environments and activities of their lives in part due to their subjective beliefs about themselves and therefore, self-efficacy impacts a person's ability to cope with stress, threats, anxieties, and adverse events, or the affective processes, which are highly consequential in leadership success (Bandura, 2023). An individual's beliefs about their capabilities not only influence motivation, but how much stress and anxiety they may experience in a challenging situation (Bandura, 2023).

Therefore, the ability to self-regulate and manage feelings of anxiety or distress corresponds with a person's ability to manage and respond to threatening situations. Perceived coping efficacy, or one's ability to exercise control over potential threats, directly influences their actions: "the stronger the perceived coping efficacy, the more venturesome the behavior, regardless of whether self-percepts of efficacy are enhanced through mastery experiences modeling influences or cognitive simulations" (Bandura, 2023, p. 61).

Several participants, such as Ethan, Benjamin, Catherine, Henry, Daniel, and Allen, shared how their leadership beliefs influenced their coping efficacy. Catherine shared:

The Chancellor tells me that like him, I'm one of the few people he knows who uncertainty and ambiguity doesn't bother them...I didn't have the stress level of 'I'm having to make decisions or make recommendations in a period of there are fewer things we know than we don't know,' right? That just doesn't bother me. It's actually something I get excited about and I enjoy. But I recognize that [for] most people thriving and ambiguity isn't a natural thing, I think, for human beings.

Ethan shared how his coping efficacy as a health professional influenced his readiness to respond to the COVID-19 pandemic:

First of all, the biggest urgency is you die, right? Okay. Would you agree that any other urgent [matter] is less than you die?...As a surgeon, one of your main jobs is to stop bleeding. You save a life by doing that simple act. And so, quite honestly, emergencies like that...that's kind of what you do. You are prepared for emergencies. You don't know what it's gonna be...And you have people around you who are very capable to help you, as colleagues, and you address the problem, because there's an urgency.

The examples above demonstrate how increased self-efficacy, including coping efficacy, corresponded with a senior administrator's confidence in responding to and making decisions during the COVID-19 pandemic.

Behavior

As explained by Larry Smith and Riley (2012), leaders during crises are expected to sensitively navigate immediate events, emotions, and consequences to minimize harm to the institution and community. Gigliotti (2019) approaches higher education crisis leadership as predominantly organizational communication leadership, as communication creates meaning around uncertain events and is instrumental in managing the crisis response. While examples in the results demonstrated how observational learning and agency beliefs influenced a leader's positioning, how they responded to the crisis – and what they learned from those experiences – is shared in detail below.

Enactive Learning

Enactive learning experiences are “the most influential source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to

succeed” (Bandura, 1997, p. 80). When faced with difficulties and setbacks, an individual’s self-efficacy may provide resilience in motivation to overcome challenges. In addition, these challenging experiences provide learning opportunities and can improve one’s abilities to exercise control over adverse events (Bandura, 1997). Enactive mastery experiences, or repeated opportunities to achieve proficiency, improves self-efficacy and one’s ability to manage constantly changing circumstances.

This study provided salient evidence that prior experiences managing crises improved coping efficacy, particularly for participants at the Professional University, as well as how other institutions within the system viewed these individuals as subject matter experts or models, from a public health lens as well as an agency lens. Learning by doing and experiencing the consequences of one’s actions provides new information (Alexander et al., 2009). This process was often cited by participants in their leadership beliefs and personal leadership development journeys. Allen shared the following reflection:

Leaders have ups and downs, like everybody does, and we have successes with some projects and successes with some relationships. And we don't with others. And so I think that over a course of leadership...it's not linear. It's been kinda roller coastery...I've had some failures along the way, and I always try to learn from those. And kind of before this, I had a failure, and then this became a great success. I think that this builds your leadership pedigree, and your leadership stock a little bit, that people will trust you...

Even if a participant did not have crisis management experience, they did have experience in higher education leadership. From Kenneth, who had decades of experience in different higher education systems:

It's happening so fast for [newer leaders] that they can't process all of the moving parts. And the sports analogy is, once you get a little experience, the game slows down for you. I used to tell my father that when I played basketball, basketball happens in slow motion for me, and everybody is like, 'What do you mean slow motion?' It's a very fast game, but for me it's in slow motion, because I've played so often.

This study also corroborated contemporary findings in the literature on studies of leadership experiences during the pandemic. Those findings included shared leadership values in accountability, teamwork, and public safety (Calcado et al., 2022; Liu et al., 2022) and the role of teams, personal agency, and impact on crisis response (M. S. Johnson & Thompson, 2020; Reed & Disbrow, 2020). Other findings that were supported by this study include increases in administrative challenges in all four cases, whether it was in the exponential increase in operational demands, navigating relationships, or leadership capacity (Gigliotti, 2021; Kruse et al., 2020; Menon & Motala, 2021).

Communication

One primary method of enactive learning during the pandemic was via communication strategies. COVID-19 was unpredictable and novel. Many leaders noted how often information changed, sometimes hourly, and that caused unexpected pivots or findings. While many examples of enactive learning were shared by participants, their commitments to transparency and trust often framed successes and failures. Henry from the Professional University noted the importance of maintaining transparent communications, as well as the challenge in doing so:

Having to retract, pivot, based on what you had communicated...That's with the information we had at the time, and it's always challenging to make decisions and say whoops! We thought that was the right decision. You have to pivot to something

else...And so communicating in that context is also quite challenging...it's really transparency to tell you the truth, right? Just sharing information, what we know, what we're doing, as transparently as possible, as well as what we don't know. And answering questions in a very transparent way.

Regarding the implementation of communication strategies, participants utilized literature-cited recommendations in practice, though they rarely cited literature as the reference point. Calonge et al. (2021) and McNaughtan et al. (2022) provided the following recommendations for contemporary higher education crisis communications: 1) utilize websites and social media to clarify, instruct, and inform stakeholders; 2) maintain safe and open lines of communication and consistently reinforce core values; 3) provide accurate time-critical information; 4) involve students in crisis communication messaging and strategy; and 5) demonstrate empathy, trustworthiness, and consistency in leadership.

Multimodal communication channels were employed across institutions, which participants explained in detail as the ways they reinforced core values, provided accurate time-critical information, and demonstrated empathy and trustworthiness. Virtual live-stream events were one method Francesca shared that sustained connection with their campus communities:

Everybody always says [show up authentically] and be vulnerable. It's easy to say, and it's harder to do. One of the things that impressed me about [our President's] leadership during this time was...we wanted people to see his face, see the level of concern he had...You needed somebody who people could relate to, who could see the concern on his face. Who could tell that he was tired and weary, and he was doing the best that he could, just like the rest of us were.

Revisiting Crawford et al.'s (2020) meta-analysis in conjunction with the campus responses to cases in this study, many validated the findings from the literature, including changes to academic calendars, the adoption of innovative learning and curricular delivery strategies, and coordinated, collaborative, and collective responses. Participants readily shared how their campus adapted to the environmental conditions as COVID-19 infections increased and decreased, as well as the resources and flexibility instituted for on-campus, virtual, and hybrid learning environments. As discussed earlier, all participants shared their gratitude for teamwork and collaboration within and across institutions, highlighting perceptions of effectiveness and confidence that these cross-talks provided for crisis response.

Implications of the Findings

This study strived to expand the literature on leadership learning and decision-making in higher education, with potential implications for improving leadership development and institutional response in future crises. Through the results of this study, I can identify promising practices and recommendations for leadership development and crisis management preparation.

The results highlight the indicators of vicarious and enactive leadership learning and decision-making during a crisis. Senior administrators shared significant and trusted sources for threat assessment and guidance for decision-making, including government entities, scientific and research organizations, health professionals, and institutional leaders and response teams within their university or university system. These sources may prove valuable as an index for future planning and preparation, as well as contemporary benchmarks for recommended practice.

When faced with an unknown situation, participants often looked to peers – individuals in similar contexts, such as other leaders within the university system – for immediate guidance and action. Collaboration and teamwork had a profound impact on learning, leadership, self-efficacy,

and decision-making strategies. Prior experiences in crisis scenarios, such as emergency management during natural disasters, military experience, and health professions experience positively influences feelings of self-efficacy in the ability to process new information to make decisions rapidly in COVID-19. These enactive experiences included how institutional leaders worked together toward their campus COVID-19 responses, such as communication plans, continuing education and research operations, ensuring health and safety, and planning and implementing return to campus protocols.

The research findings may benefit various higher education stakeholders, including administrators, faculty, and policymakers. Below I describe the theoretical, empirical, and practical implications of this research on leadership learning and decision-making during crises.

Theoretical Implications

The study's focus on learning and decision-making was grounded in social cognitive theory (Bandura, 1986, 2023). The results provided indicators of how the triadic reciprocal causation model of social cognitive theory was supported with regard to how the participants interacted and engaged with their respective environmental, personal, and behavioral determinants during the COVID-19 pandemic response.

The respective environments of the four cases revealed differing levels of efficacy and priority influences in decision-making. For example, the Professional University was often cited as the primary unit with subject matter expertise that was looked to by the other cases for guidance and to lead decision-making in response to the COVID-19 pandemic. The Residential University, which is in a rural area of the state, implemented return to campus protocols prior to institutions located in more urban areas, as the specific needs and desires of their constituents influenced actions. Indeed, while each case had its own unique circumstances, the outcomes of

the study demonstrated a positive association with collaboration and sharing of resources to improve self- and collective-efficacy across the university system.

Personal determinants such as prior leadership or crisis management experiences, as well as capability and leadership beliefs influenced a leader's self-efficacy and leadership development during the COVID-19 crisis. A leader's self-efficacy and awareness of their own intentions and goal-setting provided a clear roadmap for navigating their immediate environment – in this case, COVID-19 – and shaped their present decision-making to achieve their desired future. By reflecting on prior learning as well as an openness to learning during the crisis, participants exhibited levels of increased self-efficacy in decision-making and overcoming the significant and multimodal challenges faced by their institutions.

The behaviors exhibited by senior administrators during COVID-19 verified the enactive experiences of learning via decision-making, utilization of coping tools, and then subsequent changes in behavior. Aligned with Bandura's (1997) theory on self-efficacy, senior administrators behaved in new ways and participated in mastery exercises in order to improve their self- and collective-efficacy. Participants discussed implicit and explicit feedback that influenced these modes of efficacy and well as improved control over a crisis circumstance.

The impact on learning and decision-making highlights the value of cultivating an awareness of one's own triadic reciprocal causation and agency in leadership development (Bandura, 2023). By acknowledging one's environment, including potential models for observational learning, leaders felt prepared to manage and respond to institutional needs, both as individual leaders as well as in collaboration with a leadership team. Finally, by evaluating behavior and decision-making, participants demonstrated self-regulation and self-reflection to

stimulate learning that informed later decision-making, as well as recommendations for future institutional needs and preparedness efforts.

Empirical and Practical Implications

This study was informed by current literature and practices on higher education crisis planning and management; examining these processes through the lens of leadership learning during an unprecedented crisis. The results of this study provided both corroborating and emerging evidence on how higher education institutions, their senior administrators, and leadership teams used vicarious and enactive learning strategies to make decisions during a crisis. For example, institutions with more virtual teaching reticence changed their academic calendars, based on available public health information and virus modeling, to complete academic operations prior to expected case surges. In addition, results corroborated prior findings on the importance of clear communication across teams and to stakeholders, in order to maintain trust and order while responding to urgent situations (Blankenberger & Williams, 2020; Calonge et al., 2021; McNaughtan et al., 2022).

Emerging evidence included the role of teamwork and collaboration. Institutions with prior established emergency management teams demonstrated increased confidence in their own ability to respond to the crisis, as well as model best practices for others. Leaders who viewed the crisis as a challenge, and had confidence in their teams, also demonstrated self-efficacy in decision-making and institutional resilience to the COVID-19 pandemic. Self-efficacy, including coping efficacy, influenced leadership confidence responding to the pandemic, as well as the level of challenge it set for decision-making. Participants shared their beliefs about collaboration and teamwork, political influences, interpreting of data, and overarching leadership frames to provide context for their personal self-efficacy and perspective on collective agency. When

discussing how to manage fear, stress, and anxiety during the crisis, participants often utilized family and social connections, exercise and physical mindfulness, and reliance on colleagues or comparison to others as coping tools. These findings provide a foundation for resources and techniques to bolster feelings of self-efficacy and leadership development to enhance readiness for future crises.

The results for this study also provided corroborating evidence for promising practices for crisis preparation, response, and recovery. This study acknowledged the diverse settings and situations of leaders responding to the same crisis and yielded both transferable and specific guidance for leaders of various institutions, enhancing their capacity to respond effectively to future crises. Recommendations include prevention and preparedness exercises, opportunities to develop emerging leaders, and protocols for consistent and transparent communications to foster assurance and trust from stakeholders in the institution and its leadership. Participants provided additional recommendations for leadership development, such as collaborative exercises, increased communications, and an increase of patience and empathy toward others. Finally, many participants shared a desire to learn from these experiences to improve preparedness for future challenges as well as in leadership development exercises.

The study focused on four institutions within a large public university system, which provides evidence and implications on the value of a networked leadership model. Participants across cases shared the benefits and challenges to operating within this framework. Nonetheless, many participants highlighted how being within this networked system increased their individual ability to respond to the pandemic crisis. In addition, some individuals looked to other leaders in similar positions outside of the formal system to compare and contrast response activities. By fostering networked leadership structures, both formal and informal, academic leaders may

improve future crisis coordination as well as enhance channels for identifying promising practices, shared learning, and resource management.

Participants frequently mentioned the importance of communications teams, some even comparing how different communications teams among institutions were either more or less equipped to handle the challenge of COVID-19. One implication and recommendation is that universities continue to invest in streamlined technological systems and communication workflows to prepare for crisis situations, as well as improve overall communications channels among and between institutional stakeholders.

The findings may inform the design of future leadership training programs, crisis management strategies, and policymaking in higher education. For instance, understanding how vicarious and enactive learning (Bandura, 2023) influences a leader's self-efficacy, motivation, and development could inform the creation of more effective leadership professional development programs and support systems, for both leading on a daily basis and crisis operations and management.

Limitations of the Study

This study was based on perceptions and reflections of higher education leadership during a post-crisis period. The findings are bound by the context of the four selected institutions and 13 participants within the unique circumstances of the COVID-19 crisis. Transferability of this study's results may be limited due to the purposeful sampling approach of participants and maturation effects. Some senior administrator roles were not represented in the participant list, such as Government Affairs or Resident Life leaders. These individuals could have provided additional perspectives that were not included in the data collection.

As the study did not occur in the COVID-19 crisis directly, some maturation of views may be included, rather than participants' thinking in the moment. In addition, participants may have inaccurately represented their experiences and been susceptible to social desirability bias, to frame their responses and their respective institutions in more positive perspectives. I asked participants to reflect on a period (2020-2021) that has since passed and therefore, individuals may have found it difficult to recall specific circumstances accurately. As such, results may not be fully indicative of the current state of academic leadership learning and decision-making processes, confidence, and resilience.

My biases as the researcher and my own interpretation of the data may also be considered a study limitation. To ensure I remained honest and aware of my researcher positionality, I utilized methods such as researcher reflexivity, peer debriefing, member checking, and triangulation. Additionally, I was known by several of the participants prior to their interview, which may have inhibited participants from fully sharing their story, or alternatively, they may have shared more openly, or shared different information based on what they thought I would want to know. To limit this bias, I reminded participants that their contributions to this research could improve guidance across the higher education profession in leadership development and crisis response.

Recommendations for Future Research

Prior to this dissertation, little had been published on the intentional reflection and learning of higher education leaders during the pandemic. While the existing literature explored crisis communication and management strategies during the pandemic (Gigliotti, 2020a, 2021; O'Shea et al., 2022; Piotrowski & King, 2020), there was a notable gap in understanding the role of learning in how leaders navigated the COVID-19 crisis and response. Indeed, this study

provides evidence of how SCT informed leadership practice and how learning and decision-making occurred, and by whom, during the pandemic. Future research may elaborate on the significance of social learning, self-efficacy beliefs, and collaboration to enhancing leadership agency and institutional resilience in higher education settings, particularly during crises.

Future research should extend this work to other stakeholders within higher education, as well as other types of higher education settings. As students are also key stakeholders during an institutional crisis, examining their perspectives would supplement understanding of response efficacy at a broad level. Therefore, further research should explore student perspectives and experiences during a crisis. In addition, while administrators from different university settings were invited to participate in this dissertation study, all enrolled participants were part of a single public university system. Other types of institutions, including but not limited to community or junior colleges, military schools, liberal arts colleges, private institutions, or religiously affiliated institutions, may have experienced divergent trends or other promising practices that were not explored in this current research.

This research was limited to the period immediately following the initial COVID-19 response. Future efforts examining the longitudinal impacts of crisis management on leadership approaches is another area of important exploration. Future research efforts to understand how leaders sustain changes in communication, collaboration, efficacy, and how it relates to components of SCT could provide valuable insights into the role of communities of practice and resilience of behavior and behavior change during crises.

Finally, future research needs to use other types of research methods to further generalize and validate the findings of this study. Additional studies on coping efficacy may support the findings or provide further implications for leadership development and decision-making. For

example, by conducting similar in-depth cases related to other crisis scenarios such as natural disasters, financial downturns, or others, may establish generalizability for both coping efficacy and leadership decision-making. In addition, future research directions should include quantitative or mixed methods to evaluate self-efficacy and leadership skills, as such studies may provide empirical data to help higher education leaders prioritizing necessary resources for leadership development in higher education administration and crisis management.

Conclusion

The purpose of this study was to explore how senior administrators at four higher education institutions learned and made decisions in the first two years of the COVID-19 pandemic. Using a qualitative multi-case research approach, the study explored higher education leaders' learning strategies and reflections on their self-efficacy in making decisions during the COVID-19 crisis. Participants shared their values of teamwork and collaboration and consistent communication in service to keeping their communities safe and continuing their institutional educational missions. The study demonstrated that modeling facilitated the development of crisis management planning and skills and that self-efficacy facilitated motivation, behavior, and decision-making. In turn, self-efficacy also impacted a leader's ability to cope with stress, threats, anxieties, and adverse events.

The results of this study demonstrated the importance of observational learning on how leaders learned during the COVID-19 crisis, as well as the importance of self-efficacy and its influence on a leader's confidence, flexibility, and resolution during times of significant and rapid change. Practical implications include recommendations for crisis management planning, teambuilding, and communications strategies to improve academic leadership self-efficacy.

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APPENDICES

Appendix A: Recruitment Letter

Dear [Potential Participant],

My name is Hillary Edwards, and I am a Health Professions Education PhD student at the University of Maryland, Baltimore. As part of my dissertation, “Navigating the Unprecedented: A Study on How Senior Administrators in Higher Education Learned During the COVID-19 Pandemic,” I invite you to participate in a 60-minute interview regarding your academic leadership experiences of learning and leadership development during the first two years of the COVID-19 pandemic (January 1, 2020 – December 31, 2021).

The purpose of my dissertation research is to explore the influences of social cognitive theory (Bandura, 1986) on academic leaders’ decision-making. The primary research question to be addressed in this study is “what strategies did senior administrators at higher education institutions use to learn and make decisions in the first two years of the COVID-19 pandemic?”

If you join this study, you will be asked to participate in a one-on-one interview. This interview will occur via a virtual videoconferencing platform called Zoom. There is no obligation for follow-up. You may not benefit directly from participating in this study. You may benefit indirectly by knowing that you are helping the research team improve guidance across the higher education profession in leadership development and crisis response. Please see the attached Participant Information Sheet and Consent Form for more details about the study.

If you have interest in participating in this study, please contact me ([REDACTED]) or my Committee Chair, Violet Kulo ([REDACTED]).

Sincerely,

Hillary Edwards

Appendix B: Informed Consent

RESEARCH PARTICIPATION INFORMATION SHEET

Protocol Title: Navigating the Unprecedented: How Academic Leaders Learned and Made Decisions During the COVID-19 Crisis

Study No.: HP-00094113

Principal Investigator: Violet Kulo, EdD, MS, MA

Sponsor: University of Maryland, Baltimore

CONCISE SUMMARY:

- The purpose of this study is to explore what strategies senior administrators at four higher education institutions used to learn and make decisions throughout the first two years of the COVID-19 pandemic.
- Participants will be asked to take part in a one-on-one interview. The interview will last for approximately 60 minutes. Enrolled individuals will participate in the interview one time. There is no obligation for follow-up.
- This study is considered minimum risk. There is a small risk that participants may feel discomfort, sadness, or frustration when talking about COVID-19-related experiences. There is also a small risk of loss of confidentiality. The information discussed in the interview will be kept confidential and will be stored on a password-protected computer only accessible by the research team. The interview recording will be destroyed after the study is completed.
- Participants will not receive financial compensation for your time to be a part of the study. There is no direct benefit for the participant. Participation may improve guidance across the profession in academic leadership development and crisis response.
- Participation in this study is completely voluntary. Recruited individuals do not have to take part in this research and are free to withdraw consent at any time.

PURPOSE OF STUDY

The purpose of this research study is to understand what strategies senior administrators at four higher education institutions used to learn and make decisions throughout the first two years of the COVID-19 pandemic. This study explores the influences on academic leaders' decision-making through the lens of social cognitive theory. The long-term goal of this research is to evaluate and provide recommendations on the use social cognitive theory tools in leadership development, crisis management, and the impact on institutional resilience. The results of this study may improve guidance across the higher education profession in leadership development.

You are being asked to join this research study, and it is your choice to join or not. You are being asked to join this study because you are senior administrator at a higher education institution who participated in institutional decision-making during the COVID-19 pandemic. A maximum of 16 individual interviews will be held for a total of up to 16 participants.

PROCEDURES

If you join this study, you will be asked participate in a one-time, one-on-one interview. The discussion will last for approximately 60 minutes. This interview will occur via a virtual

videoconferencing platform called Zoom. There is no obligation for follow-up or anything further if you join this study.

We will ask for your permission to audio record the discussion. The reason we ask to record this is to ensure we do not make any mistakes in our notes. After the discussion, we will listen to the audio recording and type what was said into a computer file. We will record the discussion only if you agree to being recorded. If at any point in the discussion you want to speak off-record, we will pause recording.

POTENTIAL RISKS/DISCOMFORTS

The project is low risk. The potential risks with this research are no greater than risks in your normal day-to-day life.

There is a small risk of loss of privacy, or people who are not part of this study will learn that you participated in this study. Efforts will be made to limit your personal information, including research study and medical records, to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization. The data from the study may be published. However, you will not be identified by name. People designated from the institutions where the study is being conducted and people from the sponsor will be allowed to inspect sections of your medical and research records related to the study. Everyone using study information will work to keep your personal information confidential. Your personal information will not be given out unless required by law.

There is a small risk that people who are not a part of this study will learn what is said during the discussion. This risk is called loss of confidentiality. To protect you from loss of confidentiality, we will not use your name in any of our notes or what we enter into the computer from the audio-recorded discussion. Your name will not be on any of our files. We will keep this form in an encrypted digital file. All computer files will have a code that only the research team can use.

There is a small risk that you may feel discomfort, sadness, or frustration when talking about COVID-19-related experiences. Examples of possible risk associated with interviews include recalling traumatic or distressing events, boredom, mental fatigue, embarrassment, or a sense of invasion of privacy. Sometimes, participants may feel frustrated due to loss of time as occasionally, the interview may last longer than anticipated. To minimize this risk, you can choose to not answer any question if it makes you uncomfortable. You can also end the interview at any time, or pause and reschedule the interview for another time.

POTENTIAL BENEFITS

There are no direct benefits to participants for taking part in this study. Participants may benefit indirectly by knowing that they are helping the research team improve guidance across the higher education profession in leadership development and crisis response. While participants may experience minor distress, and the potential risks to the participants are minimal, it is believed that the knowledge gained from this study will provide societal benefits that outweigh the risks of this study.

ALTERNATIVES TO PARTICIPATION

This study is not a treatment study. The alternative to participation is to not participate. If you choose not to take part, it will not affect your access to healthcare or other health-related issue.

COSTS TO PARTICIPANTS

There is no cost to you if you join this study.

PAYMENT TO PARTICIPANTS

You will not receive financial compensation to be a part of the study.

CONFIDENTIALITY AND ACCESS TO RECORDS

This study will not use your name in any of the written documents from the discussion. Only the research team will be able to see any forms that have your name or telephone number. We keep this information only to contact you to schedule the discussion. The form with your name and telephone number will be kept in a locked cabinet or on a secure electronic server that only the research team can use. Your name will not be used in any reports from this study. All data will be kept confidential to the fullest extent permitted by law.

Efforts will be made to limit your personal information to people who have a need to review this information. We will not collect any personal medical information from you. Any private and identifiable information collected as part of the research, even if identifiers are removed, will not be used or distributed for future research studies. We cannot promise complete secrecy. Organizations that may inspect and copy the information collected as part of this study include the Institutional Review Board (IRB) of the University of Maryland, Baltimore.

The data from the study may be published. However, results will only be presented in the aggregate, and you will never be identified by name. People designated from the University of Maryland, Baltimore will be allowed to inspect sections of your research records related to the study. Everyone using study information will work to keep your personal information confidential. Your personal information will not be given out unless required by law.

RIGHT TO WITHDRAW

Your participation in this study is completely voluntary. You do not have to take part in this research. You are free to withdraw your consent at any time. There are no adverse effects (physical, social, economic, legal, or psychological) if you choose to leave the study. Refusal to take part or to stop taking part in the study will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to stop taking part, or if you have questions, concerns, or complaints, or if you need to report a medical injury related to the research, please contact the principal investigator: Violet Kulo, EdD, MS, MA at [REDACTED].

CAN I BE REMOVED FROM THE RESEARCH?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include failing to follow instructions or if the person in charge feels the research is no longer in your best interest. The sponsor can also end the research study early. The research team will tell you about this and you will have the chance to ask questions if this were to happen.

If you have any questions or concerns regarding your rights as a participant in this study, you may contact the Human Research Protections Office at 410-706-5037.

UNIVERSITY STATEMENT CONCERNING RESEARCH RISKS

The University is committed to providing participants in its research all rights due them under State and federal law. You give up none of your legal rights by participating in the research project. This research has been reviewed and approved by the Institutional Review Board (IRB). Please call the Institutional Review Board (IRB) if you have questions about your rights as a research participant.

The research described in this consent form has been classified as minimal risk by the IRB of the University of Maryland, Baltimore (UMB). The IRB is a group of scientists, physicians, experts, and other persons. The IRB's membership includes persons who are not affiliated with UMB and persons who do not conduct research projects. The IRB's decision that the research is minimal risk does not mean that the research is risk-free. You are assuming risks of injury as a result of research participation, as discussed in the consent form.

If you are harmed as a result of the negligence of a researcher, you can make a claim for compensation. If you have questions, concerns, complaints, or believe you have been harmed through participation in this research study as a result of researcher negligence, you can contact members of the IRB or the staff of the Human Research Protections Office (HRPO) to ask questions, discuss problems or concerns, obtain information, or offer input about your rights as a research participant. The contact information for the IRB and the HRPO is:

University of Maryland Baltimore
Human Research Protections Office
620 W. Lexington Street, Second Floor
Baltimore, MD 21201
410-706-5037

Appendix C: Interview Protocol

Interview Preamble

Thank you for agreeing to take part in this study and today's interview. I am [Hillary Edwards] and I will be facilitating today's discussion. The purpose of this study is to understand what strategies senior administrators at higher education institutions used to learn and make decisions in the first two years of the COVID-19 pandemic. For this study, learning refers to the processes you used to understand and respond to the crisis in your leadership capacity. I would like your opinions and views, in general, on what you learned about leadership during the COVID-19 pandemic response and what helped or hindered decision-making processes.

Interview Overview and Consent Process

Before we begin our interview, I would like to go over a few "housekeeping" points. This interview will last 60 minutes. Please silence your cell phone and other devices.

I want to remind you that your participation in this interview is voluntary and you can choose not to respond to any question for any reason. There are no right or wrong answers. I may ask follow-up questions about some of the comments that you make throughout this discussion. I do this to ensure that I accurately capture and understand what you share.

I have also provided you with a participant information sheet and research consent form. Do you have any questions or concerns about this research study?

Confirm that participant received participant information sheet and research consent form.

Answer any questions the individual may have.

I would also like to record today's discussion to make sure my notes are correct and that I have an accurate understanding of what is said today. What you say will not be linked to your name in any report that comes from this study. The recording of this discussion will be destroyed after I have completed the study.

Do I have your consent to record this conversation?

[WAIT FOR RESPONSE – RECORD ONLY IF IN AGREEMENT]

Part I: Introductions, human agency, observational learning, motivation, and COVID-19

1. To begin our discussion, please introduce yourself and your institutional role.
2. Thank you. In your current leadership capacity, reflect on when you first became aware of the COVID-19 pandemic. Had you ever considered a situation or planned for how to respond to this type of crisis?

If participants start talking about their personal experiences with COVID-19, redirect the discussion to decision-making processes and approaches.

3. I would now like you to reflect on your experiences in observational learning, or what you learned from watching the behaviors of others. Who or what resources did you look to for guidance during the early months of COVID-19?

Probes:

- Can you explain why these sources were meaningful to you?
 - What did you learn from these sources and how did it shape your COVID response?
 - How did these sources motivate you in your own behavior and pandemic response?
4. Next I would like to ask you about motivation and goal-setting. What were your primary goals in responding to the COVID-19 crisis?

Probes:

- Were these goals specific or broad? What timeframe did these goals exist in, such as short- or long-term?
- What perceived level of challenge did these goals present?

Part II: Enactive learning, self-efficacy and decision-making

For the second part of our discussion, I am going to ask you about your own judgements of what you could do during the COVID-19 pandemic, and not about your intentions.

5. What did you believe about your capabilities to respond to the COVID-19 pandemic?

Probes:

- Did these beliefs change over the course of the pandemic? If so, when and how did you notice those shifts?
- Did you approach decision-making with optimism, pessimism, or other perspective?

6. What tools did you use to cope with the stress, threats, anxieties, and adverse events?

Probes:

- Were these tools, or your reactions, similar or different from your peers?
- In retrospect, what tools do you wish you had to have helped you through the pandemic response?

Part III: Reflections on learning and decision-making

For the final part of our discussion, I want you to reflect on what you learned during the COVID-19 pandemic and how it impacts your practice as a senior administrator now.

7. What experiences prior to COVID-19 were the most foundational to how you made decisions during the pandemic?

8. How has your leadership decision-making changed because of your experiences during the pandemic?

Probes:

- When and where did you feel unequipped?
- When and where were you able to reflect on your experiences?

9. Looking back on your pandemic experiences, what recommendations do you have for leader development, in order to improve self-efficacy and crisis response decision-making?

Probes:

- Are your recommendations similar or different from new leaders versus seasoned leaders?

Closing Statement

Those are all the questions I have for you today. Before we end, thinking back to our discussion, is there anything that comes to mind that we did not already talk about?

Thank you for participating. I have learned a great deal from you and appreciate your help with this important topic. If any additional thoughts come up that you would like to convey, please feel free to contact me by email or phone at [REDACTED] or [REDACTED]. You can also contact the Principal Investigator, Dr. Violet Kulo, at [REDACTED]. Thank you again.
[STOP RECORDING]

Appendix D: Participant Demographic Survey

Start of Block: Introduction

Thank you for participating in an interview for my dissertation research, "Navigating the Unprecedented: A Study on How Senior Administrators in Higher Education Learned During the COVID-19 Pandemic". The purpose of this study is to explore what strategies senior administrators at four higher education institutions used to learn and make decisions throughout the first two years of the COVID-19 pandemic.

This survey includes three follow up questions regarding your leadership experience and three demographic questions. Please complete the brief survey below; it should take approximately five minutes to complete.

If you have any addition comments or questions, please feel free to contact me by email or by phone at [REDACTED] or [REDACTED]. You can also contact my dissertation committee chair, Dr. Violet Kulo, at [REDACTED].

End of Block: Introduction

Start of Block: Leadership Experience Questions

How many years of **general leadership experience** do you have?

How many years of **academic leadership experience** do you have?

How many years of leadership experience do you have at **your current academic institution**?

End of Block: Leadership Experience Questions

Start of Block: Demographic Questions

What is your race? Select all that apply.

- American Indian and Alaska Native
 - Asian and Asian American
 - Black and African American
 - Hispanic, Latinx, and Spanish
 - Indian and South Asian
 - Middle Eastern, North African, and Arab American
 - Native Hawaiian and Other Pacific Islander
 - White
 - I self-identify as: _____
-

What is your gender?

- Woman
 - Man
 - Non-binary
 - I self-identify as: _____
-

What is your age? _____

End of Block: Demographic Questions

Appendix E: Interview Information

Category	System Administrative Office (<i>n</i> =4)	Residential University (<i>n</i> =4)	Professional University (<i>n</i> =4)	Historically Black University (<i>n</i> =1)
Interview Duration* Range	42-58	33-56	32-42	N/A
Interview Duration* Mean	49	44	38	50
Corresponding Journals	4	4	3	1
Interview Transcript Range	11-17	10-16	8-11	N/A
Interview Transcript Mean	13	12	10	15

*Note:** Interview duration is reported in minutes

Appendix F: Data Analysis Codebook

Sub-theme #	Axial #	Code Title	Files	References
I.		<i>Threat Assessment of the COVID-19 Pandemic</i>	13	30
	1.	First awareness of COVID-19	13	30
II.		<i>Prior Crisis Management Planning</i>	13	110
	2.	Emergency Management Experience	9	19
	3.	Higher Ed System Leadership	9	12
	4.	Prior pandemic considerations	13	27
III.		<i>Prior Higher Education Crisis Management</i>	7	28
	5.	Health Professions Experience	6	9
	6.	Military Experience	1	4
IV.		<i>Trusted Information Resources</i>	13	200
	7.	Government, Research, and Science	12	35
	8.	Health Professionals, Systems, and Centers	12	31
	9.	Higher Education	5	10
	10.	Institutional Leadership	9	21
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