

High School Teachers' Perceptions of the Factors that Foster and/or Inhibit Self-Efficacy
During Emergency Remote Teaching

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Submitted in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

in the Department of Education Leadership, Management and Policy

Seton Hall University

2024

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APPROVAL FOR SUCCESSFUL DEFENSE



COLLEGE OF HUMAN DEVELOPMENT,
CULTURE, AND MEDIA

SETON HALL UNIVERSITY

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Acknowledgements

I have always believed that if you want to be successful, you must surround yourself with people who are more successful than you. Fortunately, my dissertation committee epitomized this belief, playing a pivotal role in steering me towards success. I must first acknowledge the invaluable guidance and support provided to me by my dissertation mentor, Dr. Tienken. His expertise, drive, poise, and unwavering commitment to my academic pursuits have been instrumental in shaping this final piece in my academic journey. I deeply appreciate Dr. Tienken's meticulous attention to detail, insightful feedback, and guidance throughout the entire process. Next, I would like to express my sincere appreciation to Dr. Gutmore for his invaluable insights and knowledge, which have enriched my research and expanded my understanding of the subject matter. I am indebted to Dr. Purnell who is the gold standard and pure definition of a champion for education as a mentor, professor, former superintendent, founder, executive director, and CEO. Dr. Purnell's friendship, guidance and mentorship have been pivotal in my academic and professional career; I am certain we have only just begun to scratch the surface. I was blessed early on in my teaching career to have been paired with an incredible mentor turned best friend, Dr. Viaud-Macones. She has been unwavering in her support and encouragement in all avenues of my life. Her dedication to pushing me far beyond my own career aspirations and challenging me to continually strive for excellence has been transformative. I am forever indebted to Dr. Viaud-Macones for instilling in me a sense of urgency to never stop creating, dreaming, improving, and growing. Even today, we are adding to the vision board and embarking on our first co-authored textbook. As a mentor, educator, administrator, author, and friend, you will find no better human walking this Earth.

To my Cohort #24 classmates, we enthusiastically embarked on an in-person program, only to have COVID-19 disrupt our plans. We found ourselves thrust into emergency remote teaching in the role of doctoral students, a daunting challenge to navigate. Despite the necessity of social distancing, we banded together to confront the unforeseen circumstances, both in our personal and professional lives. Fortunately, we emerged from this experience stronger and more resilient, with a newfound passion for our work and a determination to excel as administrators. Most importantly, our journey forged lifelong friendships.

Dedication

First and foremost, I would like to dedicate this to my parents, Andrew and Regina Padelsky, whose selflessness and steadfast encouragement have been the cornerstone of my ambitions. My parents epitomize the essence of hard work, having traversed through life's challenges without the privilege of higher education. Yet, their unwavering commitment to ensuring their children's opportunities surpassed their own. As I reflect on my journey, marked by numerous academic and athletic milestones, I realize that my parents might not have envisioned this prolonged path or comprehended every facet of my choices. However, their unconditional love and support has remained constant, serving as a beacon of strength throughout my journey. Mom and Dad, your enduring presence and steady belief in my potential serve as the driving force that has continually propelled me forward, for which I am eternally grateful.

To my maternal grandmother, Josephine Forti, fondly known as "Nan," and my maternal aunt, Antoinette Marie Forti, affectionately referred to as "Aunt Tone," and my beautiful cousin, Melissa Forti, whose enduring love and support have left an indelible imprint on my journey. Though their physical presence may be absent, their profound influence and consistent guidance continue to illuminate my path, resonating within every achievement and milestone reached. Their legacy of love and resilience inspires me to persevere, carrying their spirit with me always.

To my amazing nephews, Max Victor Padelsky, known as the "MVP," and Fischer Andrew Padelsky, whose innocence and boundless curiosity infuse joy and purpose into my endeavors. As they embark on their own educational journey, I impart upon them the gift of knowledge, urging them to embrace the pursuit of learning with passion and determination. May

their journey be illuminated by the same unwavering support and guidance that has guided mine, fostering a lifelong thirst for knowledge and a spirit of a relentless pursuit of excellence.

Finally, to the administrative team and teaching staff with whom I had the privilege of collaborating amidst the COVID-19 pandemic. Together, we navigated uncharted territory, confronting uncertainty with resilience and steady resolve. I am deeply proud of our collective achievements, borne from a shared commitment to excellence and a steadfast dedication to our students' well-being. In the face of adversity, our teaching staff emerged as beacons of hope and inspiration, their unwavering dedication and efforts serving as a testament to the transformative power of education. Their tireless commitment to our students' growth and success amidst unprecedented challenges epitomizes the true essence of heroism, leaving an indelible mark on our collective journey. I am deeply grateful to the dedicated teachers who generously volunteered their own time to participate in interviews, without whom this research endeavor would have been unattainable.

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Abstract

This qualitative research study explores high school teachers' perceptions of the factors influencing their self-efficacy during emergency remote teaching (ERT) in response to the COVID-19 pandemic. The study, conducted in a New Jersey high school, investigates the immediate transition from traditional in-person instruction to fully remote learning. By utilizing semi-structured interviews, the research focuses on five emergent themes: Adaptability and Flexibility, Student-Centered Approach, Communication and Transparency, Resourcefulness and Connection, and Challenges and Uncertainty Management.

The research study aligns with Albert Bandura's self-efficacy theory, examining how mastery experiences, vicarious experiences, social persuasion, and physiological arousal contribute to teachers' self-efficacy during ERT. The findings suggest that teacher self-efficacy manifests in diverse forms. The research reframes teacher self-efficacy as adaptable and amenable to strategic cultivation, providing a comprehensive framework for promoting, supporting, and nurturing diverse facets of self-efficacy in the face of unprecedented challenges.

This research study contributes valuable insights for K-12 administrators, offering qualitative data to inform future planning, preparation, and implementation of best practices during emergency school shutdowns. The multifaceted understanding of teacher self-efficacy presented in this research underscores the importance of recognizing and cultivating diverse forms of self-efficacy for sustaining effective teaching practices.

Keywords: self-efficacy, emergency remote teaching, COVID-19 pandemic, online learning, teaching, learning

CHAPTER I

INTRODUCTION

On March 18th, 2020, schools in the state of New Jersey complied with the executive order involving a mandatory shutdown of all in-person instruction due to the threat of the Coronavirus's imminent danger to the human population. The swift disruption to the delivery of classroom instruction forced educators in school systems statewide to change their instructional methods in order to deliver lessons without being face-to-face with students. In some school districts, school administrators resorted to requiring teaching staff to engage in emergency remote teaching (ERT), ERT is a temporary shift from traditional methods of teaching, it is utilized when teaching is remote, takes face-to-face teaching and transforms it to a digital format (Lewison, 2020). ERT, seemingly an unknown method of instruction for high school students and teachers, moved to the forefront of the educational experience and remained in place for the remainder of the 2020 school year.

The closure of schools ultimately affected the entire structure and experience of the teaching and learning environment (Tarker, 2020). There is evidence indicating that the sudden closure of schools during emergencies has had negative impacts not only on students' learning outcomes but also on teachers' self-efficacy in some school districts (Bassett, et al., 2020). In particular, the teaching experience of in-person instructional delivery with a planned curriculum model contrasted to the expedited change over to the ERT model.

STATEMENT OF THE PROBLEM

The Coronavirus disease of 2019 (COVID-19) resulted in 93% of public schools in the United States being legally mandated to engage in some form of remote instruction (Census Bureau, 2020). Specifically, 100% of New Jersey schools experienced a mandatory shutdown of

all in-person learning, as per an executive order given directly by Governor Phil Murphy on March 16th, 2020 (*NJ.gov*, 2020), with an effective date of March 18th, 2020. All residents of New Jersey were required to “quarantine” in their homes, practice social distancing, and were only permitted to leave for medical treatment and essential items such as food, water, and basic necessities. Due to the mandatory school closure, school districts were forced to provide students with emergency remote instruction (ERI) to complete the spring 2020 school year. The change from the traditional face-to-face method of instruction to computer-based, online learning happened at a rapid pace, in a matter of days, and may prove to be one of the largest experiments in public education to date (Lall & Singh, 2020).

Educational leaders and teachers were responsible for developing plans for the continuation of school learning programs from a distance through alternate methods of instruction during the quarantine period (Fernando & Schleicher, 2020). One method some schools in New Jersey used to deliver instruction under the ERT model utilized video conference technology and personal computing devices. Infusing technology within education to deliver curricula built for in-person instruction posed a challenge for those school districts that were technologically ill-prepared for the sudden transition to remote instruction. Teachers were forced to keep physically distanced from their students but still needed to keep in close contact intellectually and emotionally with their students to deliver instruction; school districts employed existing and new technologies such as laptops, iPads, Google Meet, Zoom, Blackboard, and Canvas. The quick shift in instructional practice may have created numerous challenges for teachers, specifically the remote delivery of in-person curricula. The ERT experience may have had a profound impact on teachers and their self-efficacy. There are very few qualitative case

studies to date that have explored teacher perceptions of the unique experience and its influence on teacher self-efficacy.

The concept of self-efficacy is a direct extension of Albert Bandura's work in Social Cognitive Theory (SCT) (Stajkovic & Luthans, 2002). Bandura's research suggests that human beings are self-reflective by nature and active contributors to their environment (Stajkovic & Luthans, 2002), much like school teachers. Self-efficacy can be defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, et al., 1977, p. 137), or a "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p. 4).

PURPOSE OF THE STUDY

The purpose for this qualitative study was to examine high school teachers' perceptions of the factors that foster and/or inhibit self-efficacy during emergency remote teaching (ERT) as a result of the COVID-19 pandemic. This research study specifically explores teacher self-efficacy when faced with the immediate transition from an in-person classroom instructional model to a fully remote instructional model with limited time to prepare.

SIGNIFICANCE OF THE STUDY

The study will extend the growing research on the topic of ERT and teacher self-efficacy. Studies that do exist typically utilize quantitative and survey approaches to data collection in the form of online questionnaires. This study uses the voices of the teachers gathered during individual interviews and provides perceptions from educators directly involved in the transition and implementation of ERT. Other studies focus on the challenges and preparedness of teachers associated with technology integration and the COVID-19 pandemic.

RESEARCH QUESTIONS

The overarching research question that guided the study was: What are teacher perceptions of self-efficacy during emergency remote teaching?

The study also included two sub-questions:

1. What are high school teachers' perceptions of the factors that foster self-efficacy during emergency remote teaching?
2. What are high school teachers' perceptions of factors that inhibit self-efficacy during emergency remote teaching?

OVERVIEW OF METHODS

The participant sample was made up of (14) teachers, two from each academic department in the high school that were employed at Everyday High School, located in a wealthy suburban community in New Jersey, during the spring 2020 semester when the COVID-19 pandemic shutdown schools. Everyday High School serves students in grades 9th through 12th from more than one town, with a student population less than 1,000 students. Data collection was in the form of semi-structured interviews held via video conferencing after contracted teacher work hours. Interview questions were generated by the researcher based on the prevailing literature on teacher self-efficacy, utilizing an open-ended format. Interview participants were volunteers and the researcher was a former employee of the school district. There were two rounds of interviews and each round lasted approximately 60 - 90 minutes. All interviews were recorded as part of the data collection process and later transcribed and coded by the researcher.

LIMITATIONS OF THE STUDY

The nature of the qualitative research does not lend itself to making causal connections. The data gathered through the interviews relied on the interviewees' recollection of events that

happened approximately three years ago. Self-reported perceptions, experiences, and feelings may not always be reliable or accurate. The results from this research study may also not be easily applied to other schools, school districts, other states outside of New Jersey, or the education setting as a whole given the small sample size, location, and school district characteristics. Unconscious researcher bias could also be present in the interpretation of the results.

Given that the present research study is retrospective in nature, it is crucial to acknowledge that retrospective data collection may present certain limitations, particularly with regards to temporal validity. In this instance, one of the main challenges of retrospective research is to avoid the influence of current knowledge, experiences, and biases towards past events, attitudes and perceptions (Roese & Vohs, 2012).

One of the limitations of this retrospective research study is the difficulty of knowing with certainty how teachers perceived their self-efficacy prior to the ERT implementation. This is due to the fact that retrospective data collection relied on participants' memories of past events, which can be subject to a variety of biases, such as memory decay or selective recall (Wright & Stone, 1979).

As highlighted by Bandura (1997), self-efficacy is not a static construct, but rather a dynamic one that can be influenced by a range of factors, including personal experiences, social interactions, and environmental factors. Teachers' self-efficacy perceptions could have changed over the three-year period in which this study was conducted, which could have implications for the temporal validity of the results.

Overall, while retrospective studies can provide valuable insights into past events, it is important to acknowledge the limitations associated with this approach and to interpret findings

with caution, particularly in terms of temporal validity. Future research could consider using longitudinal or experimental designs to overcome some of the limitations of retrospective studies and provide more robust evidence on the impact of ERT on teachers' self-efficacy.

DELIMITATIONS OF THE STUDY

The research study was designed to explore teachers' perceptions of the factors that fostered or inhibited self-efficacy during ERT. The results of the research study may not be easily generalized or applied beyond the small sample population of New Jersey suburban public high school teachers that participated in the interviews. The relationship that the researcher has to the high school teachers may potentially contribute to interviewee bias. Although all interviewee identities were kept anonymous, they may know or have a relationship with other participants and/or the researcher and chose to participate in the research study due to that reason which in turn affects it being a true random sample of high school teachers. The research study was limited to high school teachers (grades 9, 10, 11, 12) in a suburban setting.

DEFINITION OF TERMS AND ABBREVIATIONS

This section consists of any definitions and abbreviations that are pertinent to the research study.

Asynchronous Learning: refers to teacher - student learning interactions that occur in different locations or at different times (*Asynchronous Learning*, 2013).

Blended Learning: style of learning in which students learn both online and in person face-to-face instructions (also known as hybrid learning) (*Blended Learning*, 2020).

Emergency Remote Instruction (ERI): is a temporary shift from traditional methods of instruction, it is utilized when teaching is remote, takes face-to-face instruction and transforms it to a digital format (Lewison, 2020).

Emergency Remote Teaching (ERT): is a temporary shift from traditional methods of teaching, it is utilized when teaching is remote, takes face-to-face teaching and transforms it to a digital format (Lewison, 2020).

Face-to-Face Learning: the traditional classroom setting, face-to-face instruction when the teacher and the students are in the same place at the same time, usually within a school building institution dedicated to teaching and learning.

Hybrid Learning: combines face-to-face and online learning in one cohesive experience. Half of the class sessions are on campus while the other half of the class are working online (*Edutopia*, 2016).

Learning Management System (LMS): software used for creation, managing, and delivering eLearning content as well as communication with students and tracking their performance (Hetsevich, 2015).

Online Learning: a method of instruction that occurs over the Internet, at a distance rather than learning in the traditional classroom setting (Hetsevich, 2015).

Pedagogy: refers to the theory and practice of teaching and education. It encompasses the methods, strategies, and principles employed by educators to facilitate learning and promote the intellectual and personal development of learners (Smith, 2010).

Personal Devices: refers to a laptop, tablet, or smartphone owned by an individual (Definition of personal device, 2020).

Quarantine: to separate or restrict the movement of well persons who may have been exposed to a communicable disease to see if they become ill (Quarantine, 2020).

Self-Efficacy: can be defined as “the extent to which the teacher believes he or she has the capacity to affect student performance” (Berman, et al., 1977, p. 137).

Social Distancing: the physical distance maintained between individuals in social contexts.

Synchronous Learning: refers to a form of education instruction and learning occurring at the same time, but not in the same place (Synchronous Learning, 2013).

ORGANIZATION OF THE STUDY

Chapter I provides an overview of the background information associated with the COVID-19 pandemic mandatory school shutdowns, its impact on educational practices, and perceptions of teacher self-efficacy. Although the shutdowns were mandatory and schools across the nation completed the school year utilizing ERT, the researcher aims to explore how this affected teacher self-efficacy.

Chapter II aims to explore the related research and literature surrounding the educational environment during the initial COVID-19 pandemic and its direct impact on teacher self-efficacy and instructional practices. This includes the increase of technology usage to deliver instruction as schools look to resume in-person, online, and hybrid instructional learning environments for their students. Specific topics of interest include: defining teacher self-efficacy, emergency remote instruction (ERT), online learning, hybrid learning, asynchronous learning, synchronous learning, traditional (face-to-face) learning, learning management systems as well as understanding their capabilities.

Chapter III will explain the research study design methods implemented to carry out the study, including the data collected via individual teacher interviews and the corresponding variables identified. Chapter IV will present all data and statistical findings uncovered as a result of the research study. Chapter V will pinpoint a specific statistical summary of the findings, including an explanation of data implications for future educational practices. Conclusions and

recommendations as a result of the research conducted, outlined in a summary will be shared as well as specific and thoughtful suggestions for further research.

CHAPTER II

REVIEW OF THE LITERATURE

INTRODUCTION OF THE REVIEW

The concept of teacher self-efficacy was born out of the works of two separate researchers; Julian Rotter's (1954) social learning theory and Albert Bandura's (1977) social cognitive learning theory of self-efficacy. Later, other researchers sought to connect the two bodies of research into one unified concept of teaching self-efficacy (Pajares, 2002). Research that explored teacher self-efficacy in the specific context of online teaching and learning in K-12 education increased due to the COVID-19 pandemic and mandatory school shutdowns. Current research on the topic of the individual teachers' experience of ERT as a result of the COVID-19 pandemic is scarce due to its relative newness and unexplored territory.

It was clear that the COVID-19 pandemic caused a disruption to the education system; such an abrupt change that schools may never fully return to their once traditional face-to-face instructional existence. Prior to the pandemic, scholars urged educators to shift their focus away from traditional academics and move towards critical thinking and applicable skills to positively affect students' success in the future (Li & Lalani, 2020). The change in the educational delivery method to online learning had the potential to be a more efficient and effective way to educate students and possibly become the new normal (Li & Lalani, 2020).

Current literature explored the COVID-19 teaching crisis during the spring of 2019 - 2020 school year in which K-12 educators experienced a sudden shift from in-person instruction to online learning due to the COVID-19 pandemic (Ladendorf et al., 2021). Schools in New Jersey and across the country were forced to close their doors and move their teachers to an online instructional platform as a result of the state-wide mandate. Educators shifted their

traditional in-person instructional practices to an online ERT format in the matter of a weekend's time. Teachers relied heavily on their prior knowledge and training of content, pedagogy, and technology to devise their online instructional plans to carry them through the final months of the 2019 - 2020 school year.

The purpose of the qualitative research study was to examine high school teachers' perceptions of the factors that fostered and/or inhibited self-efficacy during ERT as a result of the COVID-19 pandemic found within the research literature. History is known to have a tendency to repeat itself; schools could experience a similar shutdown as a result of another pandemic or natural disaster and the data gained from the research study could help better prepare school administrators for future emergencies including inclement weather closings or planned online instructional days.

EXISTING REVIEWS

The sudden shift to remote teaching required teachers to utilize previous knowledge and skills they possessed of content specific technology integration practices. Teachers within the K-12 education setting experienced a growth in technology infusion in their lessons over the past several decades, however, there was a lack of training and professional development in the realm of specific remote learning practices (Archambault & Larson, 2015). As a result of the expedited transition in the instructional delivery methods, K-12 schools faced very specific professional development and training gaps that impacted online learning. Ladendorf et al., (2021) explored questions around teachers' self-efficacy and perceived success during remote learning, as well as how past experience, grade level, and content area factored into their remote learning success and perceptions of self-efficacy. Researchers utilized a web-based survey to collect data from K-

12 educators that participated in remote learning during the COVID-19 school closures of the spring 2020 school year. The survey consisted of 50 constructed and selected response questions broken down in the following categories (Ladendorf et al., 2021): demographics, teaching position, TPACK, remote teaching experience, success and satisfaction, etc. The sections for success and satisfaction were each scored separately. Success measured the teachers' perceived success of their students using a 5-point Likert scale rating of "Strongly Disagree" to "Strongly Agree." This included the survey questions (Ladendorf et al., 2021):

1. My students were able to make progress during remote learning
2. I was able to continue my curriculum during remote learning
3. I was able to provide personalized feedback to each of my students
4. I was able to determine how well my students were doing during remote learning

Final success scores were calculated to develop an overall success score for each teacher in terms of how successful they felt teaching their students during online learning. Satisfaction scores for teachers were measured also using a 5-point Likert scale rating of "Not Satisfied at All" to "Extremely Satisfied," including the questions (Ladendorf et al., 2021):

1. What was your overall satisfaction with teaching online?
2. What was your overall satisfaction with how engaged or motivated your students were with the online teaching?

Individual satisfaction scores were combined to develop an overall satisfaction score, representing how satisfied the teacher felt they were with the online experience. Data for the

research study was collected using surveys across various social media sites for a five-month period. A total of 132 teachers participated in the survey and researchers identified 100 valid responses. The majority, 86%, of the survey respondents were female, the majority were veteran teachers, and merely 7% had been teaching for less than 5 years. The survey participants included: 35 elementary teachers, 38 middle school teachers, 15 high school teachers, and 12 teachers who taught multiple levels. Results from the study uncovered a need for additional professional development and support for teachers to effectively utilize their content knowledge in online learning (Ladendorf et al., 2021). The data suggested that content level supervisors needed additional support that could help bridge their content knowledge with online learning. Finally, school districts could not solely rely on teachers' past experiences of content and technology knowledge alone for online learning success. School districts were encouraged to invest time, support, and additional resources into providing teachers with training specific to grade level and content area online teaching models (Ladendorf et al., 2021). The sample size for the research study was small and additional studies should be conducted on the technological, pedagogical, and content knowledge framework (TPACK), and K-12 teachers' online instruction and online experiences.

Cardullo et al., (2021) examined the relationship between teacher's self-efficacy and the extended technology acceptance model (TAM) during the COVID-19 pandemic. Researchers sought to uncover the classroom teachers' unbiased views to gain an understanding of their challenges, constraints, and experiences during the COVID-19 pandemic. A regression analysis was used to sort through the collected data. A mixed approach of qualitative and quantitative data was analyzed and findings were conclusive after examining teacher questionnaires. Questionnaires contained open-ended questions to obtain an unbiased observation of teachers'

perceptions of their self-efficacy during remote instruction. Cardullo et al., (2021), concluded that teachers faced many unexpected challenges during their time teaching under TAM. Such challenges for both students and teachers included technology, including issues with Internet connectivity or the total lack of Wi-Fi in their remote locations.

Additional challenges included lack of personal communication which impacted students' individual drive, motivation, and engagement (Cardullo et al., 2021). When examining teachers' self-efficacy, it was concluded that the lack of support and understanding of technology and technological platforms affected their ability to deliver quality instruction having a direct impact on student engagement. Researchers did identify some positives which included flexibility, and finding online resources when being unable to deliver direct instruction to the students (Cardullo et al., 2021).

Dolighan and Owen (2021) conducted a study in Ontario, Canada that examined teacher efficacy of secondary teachers within the online teaching model during the COVID-19 pandemic. Researchers sought to identify variables that correlated with teacher self-efficacy perceptions. Variables studied included: teaching experience, professional development, and teaching supports involving teachers that transitioned to the online teaching format during the COVID-19 pandemic. Researchers explored self-efficacy perceptions of teachers in the realm of classroom management, computer skills, instructional strategies, and student engagement. Data were collected utilizing web-based surveys via email that were sent to secondary teachers. The survey consisted of 32 questions and participants were asked to rate their perceived self-efficacy on a Likert scale (Dolighan & Owen, 2021). The timing of the survey was within three months of the online transition to remote teaching, so researchers could better understand initial difficulties and or the challenges teachers faced.

The results suggested that teaching online courses previously did not translate into higher self-efficacy scores. The data did not reveal a relationship between the number of online courses previously taken by the teacher and a high self-efficacy score. True to the research hypothesis, teachers that took professional development courses for online teaching did have a significantly higher self-efficacy score (Dolighan & Owen, 2021). The data did reveal a strong correlation in favor of higher self-efficacy scores and the use of a learning management system (LMS) prior to the swift shift to online teaching. Teachers that already had prior experience utilizing a LMS benefitted from the familiarity of the online environment and were comfortable with the applications, thus finding an ease in transition between students and staff alike.

FOCUS OF CURRENT REVIEW

A teachers' effectiveness within the classroom setting could be measured in numerous ways and self-efficacy is one of them. Teacher self-efficacy refers to a teacher's belief in his/her abilities to accomplish certain tasks or goals (Hussain, 2022). It also refers to a teachers' belief in their abilities to bring out expected results in relation to students' academic goals and overall academic achievement. Self-efficacy could have a powerful effect on students as it aids teachers in motivating students that face academic challenges (Armor, et. al, 1976). It could also help motivate students toward becoming more goal-oriented.

Research supports teachers with high levels of self-efficacy, it contributed to effective teaching outcomes, and assisted in the students' overall motivation and performance which led to higher levels of academic achievement (Caprara, et al., 2006). Albert Bandura suggested that an individual's self-efficacy played a vital role in the teacher-student relationship. Teacher self-efficacy had a positive impact on not only student performance but educational planning and organization (Alliner, 1994). Teachers that possess strong self-efficacy have a tendency to be

more open to change and possess the willingness to learn and implement new instructional practices. Teachers who incorporated the latest teaching methods enabled their students to be best prepared for the future (Guskey, 1988). One of the benefits of teachers that were willing to implement new concepts also displayed an increased commitment to the teaching profession as a whole (Gibson & Dembo, 1984). It is important to note that a number of unresolved issues exist within the research of teacher self-efficacy, and researchers continue to be baffled (Tschannen-Moran et al., 1998).

CRITERIA FOR THE INCLUSION/ EXCLUSION OF THE LITERATURE

The aforementioned literature review sought to examine a combination of qualitative and quantitative research on teacher self-efficacy during the phenomenon of ERT as a result of the COVID-19 pandemic in the K-12 educational setting within the United States. The criteria for inclusion and exclusion of the literature were clearly defined by the researcher, which ensured that the literature review was both relevant and systematic in nature with regards to the research questions.

Criteria of inclusion:

- Research studies that focus on teacher-self efficacy in K-12 educational setting
- Research studies that were published in peer reviewed journals
- Research studies that utilized validated measures of teacher self-efficacy
- Research time frame of 1966 to present day
- Research studies that included a minimum sample size of at least 10 participants

Criteria for exclusion:

- Research studies that focused on teacher self-efficacy in other contexts (i.e., higher education, medical school etc.).
- Research studies that were not published in peer reviewed journals
- Research studies that utilized non-validated measures of teacher self-efficacy
- Research studies that were not written in English

By explicitly outlining the inclusion and exclusion criteria for the literature review it ensured that it focused on the most reliable and relevant research on teacher self-efficacy, thus increasing the reliability and validity of the findings.

LITERATURE REVIEW METHODS SEARCH PROCESS

The literature review was carried out by utilizing the Seton Hall University Library Database, including specific databases such as EBSCOHost, SAGE Journal, Google Scholar, books, articles, and peer-reviewed journals. The keywords entered in the databases for search terms were: self-efficacy, teacher self-efficacy, remote teaching, emergency remote teacher, online learning, synchronous, asynchronous, online teaching, K-12 emergency remote teaching, COVID-19 pandemic and emergency remote teaching, age and self-efficacy, subject area and self-efficacy, teaching experience and self-efficacy, Albert Bandura, Social Cognitive Learning Theory, Julian Rotter, Rotter's Locus of Control, Rotter's Theory, school shutdowns, RAND Corporation Studies, RAND Corporation and teacher-self efficacy, teacher self-efficacy scales,

teacher self-efficacy research and measurement instruments, global school shutdowns COVID-19 pandemic.

EMERGENCY REMOTE TEACHING

At the onset of the mandatory school shutdowns in New Jersey due to the COVID-19 pandemic, schools were faced with delivering instruction in a format that extended far beyond the traditional school building walls. With little time available for planning, preparation, or professional development, school districts were forced to have their teachers employ ERT to get through the remaining three months of the school year. ERT can be best described as a temporary shift of instructional delivery due to crisis circumstances (Hodges, et al., 2020). ERT was utilized in New Jersey public schools as a temporary solution to replace daily face-to-face interaction, which enabled teachers to provide students with access to instruction and support almost instantly. When school districts utilize ERT, it requires little planning or preparation and rarely provides teachers with adequate training prior to implementation. Unfortunately, this can be viewed as a somewhat rushed approach and at times tends to lessen the quality of instruction delivered to the students in a remote setting (Hodges, et al., 2020).

The COVID-19 pandemic unintentionally exposed gaps in teacher readiness when it came to the implementation of ERT (Trust & Whalen, 2020). It also uncovered teachers' inexperience and lack of teacher preparedness when utilizing technology to teach and support students in a distance learning format. When looking at the educators who were already utilizing technology in their teaching methods prior to the pandemic, including within a blended learning approach, those teachers experienced a much easier transition to ERT compared to their less technology exposed peers. Most teachers reported to be teaching themselves or learning alongside their students while the school year continued remotely, essentially "building the plane

while flying it” (Trust & Whalen, 2020, p. 193). Research suggested that the infusion of technology within schools had been sporadic at best and most educators were “ill prepared to teach with technology” (Fougler et al., 2017, p. 418).

ONLINE LEARNING AND TEACHER SELF-EFFICACY

Marshall et al., 2022, conducted a study that explored teachers’ sense of self-efficacy during the initial transition to ERT in March 2020. Researchers utilized an online survey method approach and casted a wide net on teachers across the United States utilizing social media platforms to share the survey link. Researchers sought to understand the teacher experience, specifically teacher self-efficacy during the greatest disruption to American public education in history. A group of 249 teachers throughout the United States voluntarily participated in the online survey. Researchers explored whether relationships existed among the following variables: years of teaching experience, subject area taught (i.e., special education, elective, elementary, prior online teaching experience), school geographic location type (i.e., Title I, rural, urban, small town), technology accessibility (i.e., 1:1 device, Internet access), and learning modality (i.e., online instruction only, online with packets, instructional packets only). Marshall et. al., 2022, relied upon the following questions:

1. To what extent were teacher-level variables associated with teachers’ senses of efficacy during the transition to remote instruction?
2. To what extent were school/ contextual variables associated with teachers’ sense of efficacy during the transition to remote instruction?

3. To what extent was school learning modality associated with teachers' sense of efficacy during the transition to remote instruction?

Research results concluded that teachers self-reported moderate amounts of self-efficacy. Teachers expressed the greatest amounts of self-efficacy as related to instructional strategies employed by their school districts, followed by classroom management, and finally student engagement (Marshall et al., 2022). Many limitations existed within the research study, such as the lack of diversity within the population (80% white, female), and a small sample size (249 teachers), with an average age of 40 years old, may not apply to other parts of the United States.

ONLINE LEARNING

Thanks to technological advancements and curricular changes more high schools have been able to offer online learning options to their students. Online learning options offered greater flexibility to the students' schedules, especially if it allowed them to take courses outside of their normal school day. Online options enabled students to utilize technology to learn from anywhere; no longer limiting learning to within the school building confines. Online learning can be best described as learning experiences in synchronous or asynchronous learning environments when students have access to the Internet using personal devices such as iPads, laptops, and mobile phones (Dhawan, 2020).

Online learning consisted of daily or weekly communication and interaction between the teacher and students and employed various teaching strategies. Teachers had the ability and flexibility to utilize the online digital platform to share and assign content and differentiate instruction (Stauffer, 2020). For online learning to function properly Internet access and laptops or other personal devices were needed for the delivery of content. The online learning existed in

the form of fully online or hybrid models; research concluded that online learning takes less time, has increased student learning and the retention of information, which made a strong argument that the educational delivery method changed the school experience as a whole during the COVID-19 pandemic and could be here to stay (Li & Lalani, 2020).

ASYNCHRONOUS LEARNING

At the beginning of the COVID-19 pandemic there was little time for teachers to prepare and create new emergency remote teaching lesson plans. When ERT was implemented, schools had the responsibility to take the necessary steps to inform, reassure, and maintain communication with their students and parents. One of the adjustments teachers had to make was the change from face-to-face learning to asynchronous learning (Daniel, 2020). Asynchronous learning offered students less formal structure, more flexibility with regards to assignment deadlines, instructional time, and task completion (Hodges et al., 2020). It provided teachers with the flexibility to prepare lessons in advance, they posted assignments online and it was accessed by students at a later date, allowing students to manage the demands of learning from home. Asynchronous learning can manifest as a self-directed learning format that allowed teachers and students considerable freedom while not having to stay in live contact with one another.

SYNCHRONOUS LEARNING

Although the transition to distance learning may have been dominated by asynchronous learning, synchronous learning was also an option (Marjanovic, 2002). Synchronous learning provided students' formal structure, live feedback, peer-to-peer collaboration, and face-to-face teacher instruction as well as support (Hodges et al., 2020). This learning space was also utilized for those responsible for assessing students from a distance for Individualized Education Plans

(IEPs) & 504 implementation as well as teachers wishing to show real time examples or experiments to their students.

ROTTER'S SOCIAL LEARNING THEORY

Rotter's Social Learning Theory of Personality suggested that an individual's personality is the direct result of life experiences over time within one's environment. Rotter proposed that in order to understand a person's behavior, one must take into account the entire life experiences of the individual, inclusive to their environment. The theory focused heavily on the role of cognitive processes in personality development and human behavior.

The theory suggested that individuals have different expectations about the outcomes of their actions, which ultimately influenced their behaviors (Rotter, 1966). According to Rotter, those expectations, or locus of control, can be either internal or external. Thanks to the early work and the underpinnings of Julian Rotter's Social Learning Theory (1966), teacher self-efficacy was originated by RAND researchers as "the extent to which teachers believed that they could control the reinforcement of their actions, that is, whether control of reinforcement lay within themselves or the environment" (Tschannen-Moran et al., 1998, p. 202). Student motivation as well as student performance played a significant role and were assumed by RAND researchers to also be significant underliers for teaching behaviors. As a result, it was thought that teachers that possessed a high level of self-efficacy could control or at a minimum strongly influence the student achievement and student motivation within their own classroom environments.

Rotter's theory also suggested that the role that positive reinforcement and punishment played in shaping an individual's behavior (Rotter, 1990). Reinforcement focused on positive or

negative consequences as a result of an individual's behavior and impacted the likelihood of that behavior being repeated by the individual in the future. Conversely, punishment was the application of a negative consequence for a specific behavior by an individual and is usually meant to decrease the likelihood that that behavior will be repeated in the future. As a result of reinforcement and punishment practice, individuals experienced a trial-and-error process in which they essentially tested out various behaviors (positive or negative) and weighed the impact of the outcomes from said behaviors. Over the years, an individual's behavior was guided closely by that trial-and-error process and the belief they had associated with certain actions and outcomes.

ROTTER'S LOCUS OF CONTROL

Building on the strong foundation of his social learning theory, Julian Rotter was widely recognized for his influential research revolving around the concept of generalized expectancies for control of reinforcement, known as locus of control. Locus of control was defined as an individual's general beliefs about what determined whether or not their behaviors were reinforced (Rotter, 1966). The beliefs were categorized along a continuum spanning from very internal on one end to very external on the opposite end (Kormanik & Rocco, 2009). Those individuals said to have a very strong internal locus of control subscribed to a belief that their own actions and internal factors determined their outcomes (i.e., successes and failures). They possessed a strong belief that their actions and behavior were determined by their own abilities, decisions, and efforts (Rotter, 1990). In contrast, those individuals said to have had a very strong external locus of control subscribed to a belief that others were to blame (external factors) for their successes and failures and chalked it up to luck, fate, or the actions of others (Chiu et. al, 1997). Such individuals were considered to be somewhat passive in nature, and less likely to be

self-motivated, take initiative, or accept responsibility for their own actions. Rotter's theory concluded that individuals with an internal locus of control were more likely to be successful, possess high levels of confidence, had self-motivation, and were adaptive; they also took responsibility for their own actions and were highly motivated to make changes in order to achieve their goals (Lefcourt, 1976).

THE RAND CORPORATION STUDIES AND TEACHER SELF-EFFICACY

The RAND Corporation was a non-profit organization formed in 1948 known for conducting research and analysis on a wide array of policy issues, including those that existed in the field of education (RAND Corp., 2018). A strong area of focus within the RAND Corporation centered around the relationship between teacher self-efficacy and student outcomes/ achievement. Research suggested that teachers possessing a high level of self-efficacy were automatically going to set a high level of expectations for their students, thus utilizing effective teaching strategies, and be well equipped to adapt lessons and provide appropriate support for the individualized needs within their classrooms. Teachers possessing high levels of self-efficacy had a tendency to report less work-related stress and burnout, and reported better job satisfaction and were more capable of dealing with difficult situations (Herman et al., 2017).

The RAND researchers found that self-efficacy was not only important to individual teachers, but also for the entire school building. When a school culture consisted of high self-efficacy among its teachers and staff, the students tended to perform better academically and had a better overall school experience. The RAND Corporation also suggested that teacher self-efficacy can be influenced by a variety of factors within a school district. This included the level of support and resources provided by the school and the school district that could affect teacher

self-efficacy. Teachers who felt they had the support and resources they needed to do their jobs effectively and be successful tended to possess high levels of teacher self-efficacy (RAND, Corp., 2018).

TEACHER LOCUS OF CONTROL

Teacher Locus of Control (TLC) was a concept born out of Rotter's Social Learning Theory and referred to the extent to which teachers believed that they could control any and all events in their classrooms including student achievement outcomes. As mentioned above, according to Rotter's Social Learning Theory, individuals could either possess an internal or external locus of control. Teachers possessing an internal locus of control had a strong belief that their actions and behaviors were what determined the outcomes in their classrooms, specifically student achievement and behavior (Rotter, 1990). Teachers with an internal locus of control tended to take responsibility for their own actions and believed they could change the course of their classroom through their own individualized efforts and delivery of instruction (Rotter, 1990). Conversely, teachers possessing an external locus of control believed that the events and outcomes within their classrooms were determined by factors that were beyond or outside of their control, such as a students' background, a students' parents, and school district policies. They tended to be more passive in nature, and less likely to take initiative or responsibilities for their own actions. Research suggested that a teachers' locus of control could have a significant impact on student achievement outcomes and student behavior. It could also determine the longevity if a teacher stays in the profession and has an impact on their well-being and overall job satisfaction (Pekrun et al., 2009).

BANDURA'S SOCIAL COGNITIVE LEARNING THEORY

Albert Bandura was an influential social cognitive psychologist who was best known for his Social Cognitive Learning Theory (Bandura, 2001). The theory itself explained how individuals had the ability to learn by first observing and then imitating the actions of others. According to Bandura, individuals learned by observing and mimicking the behavior of models, which could be real or symbolic (Bandura, 1997). The theory suggested that people's behavior, thoughts, and emotions were interrelated and influenced by their environment and the people around them.

A key element present in Bandura's Social Cognitive Theory is the concept of self-efficacy (Bandura, 2001). Self-efficacy refers to an individual's belief in their ability to successfully perform a task or overcome a challenge. Bandura argued that people's self-efficacy beliefs played a critical role in determining their behavior (Bandura, 2001). Individuals possessing high levels of self-efficacy were more likely to take on challenging tasks and persevere in the face of adversity, while those possessing low levels of self-efficacy were more likely to avoid challenges and give up easily when faced with an obstacle. They may also lack the confidence and motivation to persist in the face of adversity.

Another important aspect of Bandura's Social Cognitive Theory is the concept of reciprocal determinism (Bandura, 1997). Reciprocal determinism referred to the idea that a person's behavior, personal characteristics, and environmental factors, were all interconnected and mutually influenced each other. For example, a person's self-efficacy beliefs may have influenced their behavior, which in turn may have influenced their self-efficacy beliefs (Bandura, 1997). Bandura's Social Cognitive Theory has been applied to a wide range of fields, including

education. While focusing on education, the theory has been used to explain how students learn, first by observing and then imitating the behavior of their teachers and peers (Bandura, 2001).

BANDURA'S CONSTRUCT OF SELF-EFFICACY

Bandura's construct of self-efficacy referred to an individual's belief in their ability to successfully perform a task or overcome a challenge. According to Bandura, self-efficacy was an essential component of his Social Cognitive Theory. Bandura's Social Cognitive Theory proposed that people's behaviors, thoughts, and emotions were interconnected and were influenced by their environment and the people around them. He proposed that human beings played an active role as contributors within their environments and had the ability to be self-reflective in nature (Cardullo et.al, 2021). As such, Bandura theorized that a person's self-efficacy beliefs transcended human behavior including the way in which individuals were able to not only control but act as the architects of their own environments. Officially, self-efficacy was first introduced in 1977, based on the idea that individuals have the ability to "organize and carry out the necessary actions to achieve a desired outcome" (Bandura, 1977). This concept has since become an essential part of psychological research, with studies showing that self-efficacy can have a significant impact on an individual's behavior and performance.

Self-efficacy was a person's distinctive belief in their ability to complete a task or achieve a goal (Bandura, 1977). It is a psychological construct that can be measured and studied. According to Bandura, self-efficacy beliefs could be influenced by four different sources of information which are listed below:

1. Mastery Experiences

2. Vicarious Experiences
3. Social Persuasion
4. Physiological Arousal

Mastery experiences referred to the individual's past experiences of completing similar tasks successfully; having prior success with a technique or situation (Bandura, 1986). For example, if a teacher had a history of successfully completing a math lesson, they would have had a high self-efficacy for math instruction. Vicarious experiences referred to observing others successfully completing similar tasks; an individual can hear about or see someone else be successful and therefore influencing their own belief about being able to succeed. For example, when teachers are paired up and have the opportunity to see someone else succeed could increase one's self-efficacy (Bandura, 1986). If a teacher observed a peer successfully complete a math lesson, they will have had a higher self-efficacy for math instruction. Social persuasion referred to feedback and encouragement from others; an individual can be talked into believing that they can be successful (Bandura, 1986). For example, if a teacher received positive feedback from an administrator, they would have a higher sense of self-efficacy. Physiological arousal refers to one's physical and emotional state during a task (Bandura, 1986). In positive situations it can motivate people to try something, in stressful situations, like ERT, it can cause people to feel a lack of self-efficacy. For example, if a teacher was feeling tired or stressed, their self-efficacy would be lower.

As a result of Bandura's extensive research, individuals shape their own self-efficacy beliefs through the interpretation of information related to their capabilities (Bandura, 1997). This information is derived from four distinct sources: mastery experiences, vicarious

experiences, verbal persuasion, and physiological and affective states. Mastery experiences offer insights into both successes and failures, with successful encounters generally enhancing self-efficacy beliefs and failures diminishing them. Vicarious experiences, on the other hand, convey information about the achievements of role models, influencing self-efficacy beliefs through model learning and providing a benchmark for social comparison. Verbal persuasion, particularly from significant others (Bandura, 1997), can effectively convince individuals of their capabilities, especially when emanating from credible sources. Physiological arousal states provide information about emotional and physiological arousal during demonstrations of capabilities, with stress exacerbating the interpretation of somatic cues as indicators of dysfunction, thereby negatively impacting self-efficacy beliefs.

Bandura's research highlights the significance of an individual's cognitive processing stage where information from each source is interpreted and integrated, with varying weights assigned to each source. Among the four sources, mastery experiences wield the most substantial influence on self-efficacy development due to their authenticity as indicators of one's capabilities (Bandura, 1997). Consequently, prior research on the development of Teacher Self-Efficacy (TSE) has predominantly centered on the teaching practicum or field experience at schools (Hoy and Woolfolk, 1990; Fives et al., 2007; Knoblauch and Woolfolk Hoy, 2008; Klassen and Durksen, 2014) as it provides an optimal context for accumulating mastery experiences and instigating changes in TSE. Due to the absence of reliable measures for TSE sources (Klassen et al., 2011), an in-depth examination of these sources and their contributions to TSE development has remained elusive. This research study addresses this gap by introducing an instrument designed to assess the four hypothesized sources of TSE. The construct validity of this new measure was tested using Confirmatory Factor Analysis (CFA).

Bandura's theory of self-efficacy was widely applied to the field of education, it was used to understand how students' self-efficacy beliefs influenced their academic performance and motivation. The theory of self-efficacy aided researchers in understanding human behavior (Schunk, 1991).

ROTTER AND BANDURA: A CONVERGENCE OF THE TWO STRANDS

The research conducted on locus of control and self-efficacy had traditionally been divided into two main strands: Rotter's Locus of Control and Bandura's Self-Efficacy. There was a convergence of the two strands in the literature as researchers recognized the interconnectedness of the constructs (Pajares, 2002).

Locus of control, as theorized by Rotter, referred to an individual's belief about the degree to which they had control over the events that affected their life (Rotter, 1966). As mentioned previously, individuals with an internal locus of control believed that they had control over their own lives, while those with an external locus of control believed that external factors, such as luck or fate, were primarily responsible for the events in their life. Self-efficacy, as theorized by Bandura, referred to an individual's belief in their ability to successfully perform a task or achieve a goal (Bandura, 1977). Self-efficacy beliefs could vary depending upon the specific task or domain, and could be influenced by a variety of factors, such as past experiences and social persuasion.

For example, a study found that individuals with an internal locus of control tended to report higher levels of self-efficacy in both academic and non-academic domains. Research has shown that individuals with higher self-efficacy tended to have a more internal locus of control (Lefcourt, 1976). One explanation of the relationship is that individuals with an internal locus of

control tended to take a proactive approach to problem-solving and goal-setting, which could lead to the development of stronger self-efficacy beliefs (Pajares, 2002). Individuals with stronger self-efficacy beliefs may be more likely to engage in activities and pursue goals, which could further strengthen their internal locus of control. Both locus of control and self-efficacy had been found to be important predictors of a variety of outcomes, such as academic achievement, job performance, and mental health. The convergence of the two theories could be beneficial for educational, occupational, and psychological interventions (Wrosch & Miller, 2005).

GIBSON AND DEMBO'S TEACHER EFFICACY SCALE

The Gibson and Dembo's Teacher Efficacy Scale (TES) was a widely used measure of teacher self-efficacy, which was defined as an individual's beliefs in their ability to successfully perform a teaching task or achieve a teaching goal (Dembo & Gibson, 1984). The TES was first developed in 1984 and had since been used in a variety of educational settings and with diverse populations of teachers (Dembo & Gibson, 2019).

The TES format used a Likert-type scale that was composed of 28 items, each of which was designed to assess a specific aspect of teacher self-efficacy (Tschannen-Moran et. al, 2001). The items were grouped into four subscales: Personal Teaching Efficacy (PTE), Classroom Management Efficacy (CME), Curriculum Efficacy (CE), and Student Engagement (SEE) (Tschannen-Moran et. al, 2001). The PTE subscale measured a teacher's beliefs in their ability to manage their own emotions, stress, and time effectively. The CME sub-scale measured a teachers' beliefs in their ability to manage the behavior of their students. The CE sub-scale measured a teachers' beliefs in their ability to deliver effective instruction and evaluate their own

teaching performance. The SEE subscale measured teachers' beliefs in their ability to engage their students in the learning process (Tschannen-Moran et. al, 2001).

The TES had been found to be a reliable and valid measure of teacher self-efficacy (Dembo & Gibson, 2019). Studies have shown that the TES had a high internal consistency, test-retest reliability, and construct validity. Research suggested that the TES was sensitive to changes in teacher self-efficacy over time, and that it was able to differentiate between teachers who have different levels of self-efficacy (Tschannen-Moran et. al, 2001). The TES enabled researchers to separately assess the many aspects of teacher self-efficacy. This could be useful in identifying specific areas where teachers may be lacking in confidence and in need of support or training (Dembo & Gibson, 2019). TES was used to investigate the relationships between teacher self-efficacy and other important variables, such as teacher burnout, job satisfaction, and student achievement (Pekrun et. al, 2009).

BANDURA AND TEACHER SELF-EFFICACY

Teacher self-efficacy referred to an individual teacher's belief in their own ability to effectively teach and have a positive impact on the lives of their students. The mindset could have a measurable impact on a teacher's motivation and ultimately their overall job performance. Bandura's Social Learning Theory proposed that individuals could learn largely through observing and mimicking the behaviors of others, and that self-efficacy could be increased through the observation of successful role models and the experience of success (Bandura, 1977).

In the field of education, a teacher's self-efficacy could be influenced by their past experience, the support and/or feedback they received from peers, their superiors, and the

success of their students (Bandura, 1977). Research demonstrated that the teachers with higher self-efficacy were more likely to set challenging goals for themselves and their students, and be willing and able to take on challenges. Those with high self-efficacy tended to have stronger relationships with their students and were successful in creating a positive classroom environment (Bandura, 1977).

There were numerous ways to improve teacher self-efficacy and help individual teachers achieve success. Consider providing teachers with opportunities to observe successful peers, provide meaningful feedback, and timely support. Offer professional development opportunities, in-house mentoring, common planning time, coaching, and resources. Teacher self-efficacy was a critical component when it comes to effective teaching and overall student success. By having a clear understanding of the factors that influence self-efficacy and applying Bandura's Social Cognitive Learning Theory, educators could work to support the development of self-efficacy and ultimately improve the quality of education for all students.

BANDURA'S TEACHER SELF-EFFICACY SCALE

Albert Bandura's Self-Efficacy Theory served as a framework for understanding how individuals perceived, evaluated, and reflected on their ability to perform specific tasks or achieve goals (Bandura, 1977). In the field of education, Bandura's theory was utilized in the study of teacher self-efficacy, otherwise known as the belief in one's ability to effectively instruct and positively impact the lives of students while guiding their learning. Bandura's Teacher Sense of Efficacy Scale (TSES) was found to have high reliability and validity, and was utilized in numerous studies to explore and analyze the relationship between teacher self-efficacy

and outcomes, such as teacher burnout, job satisfaction, and student achievement (Pekrun & Maier, 2009).

The TSES developed by Bandura to measure teacher self-efficacy was a widely used instrument that consisted of 10 items that assessed teachers' beliefs in their ability to impact desired student outcomes (Woolfolk & Hoy, 1990). The scale was able to measure self-efficacy in two different conditions: general teaching efficacy and personal teaching efficacy. General teaching efficacy referred to individual teacher's beliefs in their ability to influence the general school environment and enact positive change in student learning outcomes. The specific aspect of teacher self-efficacy pertained to the teacher's belief in their individual ability to impact student outcomes as a result of their actions and interactions with students and the school district community as a whole. Conversely, personal teaching self-efficacy referred to an individual teachers' belief in their ability to manage and motivate students, design and implement effective instruction, and evaluate student progress and performance (Woolfolk & Hoy, 1990). The specific aspect of teacher self-efficacy pertained to the teacher's specific skills and their abilities within the classroom environment.

GENDER AND TEACHER SELF-EFFICACY

Research suggested that teacher-self efficacy could vary by gender and found that female teachers tended to have higher levels of teacher self-efficacy than their male counterparts (Hwang & Chen, 2019). The reason for the differences between genders was unclear. Cultural stereotypes and societal expectations could play a specific role in sharing gender differences in teacher self-efficacy. For example, women could be more likely to view teaching as a natural extension of their nurturing roles, while men could be less likely to view teaching as a natural

career choice for them. Women could be more likely to view themselves as effective teachers due to their experience in nurturing roles raising children and be much more confident in their abilities to connect with and care for their students. Gender differences in teacher self-efficacy might be related to the teachers' own personal experiences with discrimination and bias (Eom & Skaalvik, 2019). Women may have faced more barriers and challenges than men in the teaching profession, thus leading to lower levels of teacher self-efficacy (Hwang & Chen, 2019). Research uncovered challenges faced by women concerning discrimination from parents, colleagues, and administration which could also lead to decreased levels of self-efficacy (Eom & Skaalvik, 2019).

Despite the above findings, not all research studies had found significant gender differences in teacher self-efficacy, and individual as well as situational factors also played a unique role in shaping teacher self-efficacy. Additional research is needed to fully understand the complex interactions between, gender, societal expectations, and the teaching profession (Eom & Skaalvik, 2019).

AGE AND TEACHER SELF-EFFICACY

Research suggested that teacher self-efficacy can vary by age; older teachers tended to possess higher levels of self-efficacy compared to their younger counterparts (Woolfolk & Hoy, 1990). Older teachers had more experience and had been exposed to more diverse situations in their teaching careers, which could ultimately lead to more confidence in their abilities. Older teachers were able to develop a strong sense of mastery and expertise within their subject areas or abilities over time which could also boost their self-efficacy (Woolfolk & Hoy, 1990). Over time, more experienced teachers indicated by their age were found to have had more internal

locus of control, which meant they tended to attribute their success and failures to their own abilities and efforts rather than pointing at external factors. Their high internal locus of control can also continue to lead and contribute to higher levels of self-efficacy.

Research indicated that younger teachers could be more likely to experience self-doubt and uncertainty when it comes to their abilities due to lack of experience which can lead to lower levels of self-efficacy (Woolfolk & Hoy, 1990). They lack the years of experience and the sense of mastery that the older more experienced teachers possess, and may also be more likely to attribute their successes and failures to external factors.

Not all studies found a significance in age differences and teacher self-efficacy and that individual and situation factors could play a role in shaping self-efficacy in teachers (Tschannen-Moran & Woolfolk Hoy, 2001). Additional research is needed to fully understand the complex interactions between age, experience, and the teaching profession.

LENGTH OF TEACHING EXPERIENCE AND TEACHER SELF-EFFICACY

Teacher self-efficacy was shown to vary by the length of a teacher's teaching experience. Research suggested that as teachers gained more experience, their self-efficacy tended to increase (Hwang & Chen, 2019). Kuzma (2007), found that newly qualified teachers tended to have lower levels of self-efficacy when compared to the more experienced, veteran teachers. It is most likely due to the fact that new teachers were still learning the profession and may not have had the same level of mastery, skill, and expertise as the more experienced teachers. New teachers could be more likely to attribute their successes and failures to external factors, rather than their own abilities and efforts, which could lead to lower levels of teacher self-efficacy.

As teachers gain more experience in the profession, they ultimately develop a sense of mastery and expertise in their subject area, which could help boost their self-efficacy. Experienced teachers were typically exposed to more challenging situations in their teaching careers, which led to higher levels of confidence in their skills and abilities (Kuzma, 2007). Experienced teachers could be more likely to have an internal locus of control, so they attribute their successes and failures to their own abilities and efforts, rather than external factors. Operating under an internal locus of control could also contribute to higher levels of teacher self-efficacy.

Hwang and Chen (2019), found that teachers with more than five years of experience had higher levels of self-efficacy than those with less years of experience. It is important to note that not all studies have found significant differences in teacher self-efficacy based on length of teaching experience, and that individual and situational factors also played a role in shaping teacher self-efficacy. Additional research is needed to fully understand the complex interactions between experience, teaching profession, and teacher self-efficacy.

SUBJECT AREA SPECIALIZATION AND TEACHER SELF-EFFICACY

Teacher self-efficacy was found to vary across the many subject areas. Teachers possessed different levels of self-efficacy in relation to the different subject areas they teach or taught throughout their teaching careers. The various teaching experiences could influence a teacher's effectiveness as well as job satisfaction. Studies have suggested that teachers of different subject areas may have had different perceptions of the demands of teaching and different levels of confidence in their ability to meet those demands. Hwang and Lee (2016), noted that teachers of subjects such as mathematics and science tended to have higher levels of

self-efficacy than teachers of other subjects such as English or social studies. Teachers that taught non-tested subject areas such as the visual and performing arts or health and physical education also had a different perception of the demands of teaching as compared to their tested subject area peers. The differences may have been due to the perception that the tested subject areas are more challenging or complex to teach as higher stakes are involved (state testing, AP tests etc.), or they required a different set of skills and knowledge.

Ross and Gray (2016) suggested that a teacher's own self-efficacy varied based on the level of expertise and experience in a particular subject area. Novice teachers of mathematics tended to have lower levels of self-efficacy than more experienced teachers, due to their lack of knowledge and skills within the specific subject area (Ross & Gay, 2016). Subject area specialization could also play a unique role in the relationship between teacher self-efficacy and student achievement. Students have found that teachers with higher levels of self-efficacy in their subject area tended to have students with higher levels of achievement, particularly in subjects like math and science (Gu & Day, 2011).

COVID-19 PANDEMIC AND TEACHER SELF-EFFICACY

The COVID-19 pandemic forced many schools and universities to quickly shift from face-to-face instruction to ERT, which presented significant challenges for teachers and students alike. A key concern that arose from the shift was the potential impact on teacher self-efficacy. Alghamdi and Alhajeri (2021), suggested that the sudden shift to ERT may have had a negative impact on individual teachers and their self-efficacy. A study conducted during the early months of the pandemic by Marzano and Pickering (2020) found that teachers reported lower levels of self-efficacy when teaching remotely compared to in-person, face-to-face instruction. This may

have been the result of many factors, such as the lack of familiarity and experience with remote teaching technologies and online teaching methodologies, as well as difficulties experienced in building relationships and connections with students in the virtual learning environment. The increased workload and stress associated with ERT could have also contributed to lower levels of teacher self-efficacy.

Brouwer et al., (2020), found that teachers reported lower levels of self-efficacy in the areas of classroom management and student engagement when teaching remotely compared to in-person instruction. This may have been due to the lack of visual cues and nonverbal communication in the virtual environment, which could create quite a challenge when attempting to maintain classroom behavior and discipline as well as student engagement. On the other hand, not all studies have found negative impacts of ERT on teacher self-efficacy. The impact of ERT on teacher self-efficacy was linked to the various individual differences and individual factors of each teacher such as prior experience with technology, remote teaching, teaching style, and personal coping skills. The quality of support and resources provided to the teachers during the transition to ERT may have also played a significant role in shaping self-efficacy. Further research is needed to fully understand the complex interactions and phenomenon between ERT and teacher self-efficacy.

GAPS IN THE RESEARCH; K-12 EMERGENCY REMOTE TEACHING

The COVID-19 pandemic singlehandedly forced educators around the globe to swiftly adapt to ERT, and researchers have begun to investigate the widespread impact of such a rapid shift on teacher self-efficacy. Despite the growing body of research in regards to the COVID-19 pandemic and ERT, there are still gaps that exist in the understanding of how ERT affects and/or

impacted teacher self-efficacy and how to best move forward to support teachers in such an environment and if a similar phenomenon were to repeat itself. It is clear that the K-12 educational landscape was greatly impacted by the change. Although ERT presented new challenges for educators, it also offered opportunities for innovation and growth (Smith & Smith, 2021). Despite the opportunities, there are still gaps in the understanding of how best to support K-12 teachers and students during the COVID-19 pandemic and the ERT context.

One gap in the research was a lack of understanding on how different factors interact to affect teacher self-efficacy during ERT. Although it was clear that technology can play a significant role in a teachers' ability to effectively teach remotely, it is not clear how factors such as access to technology and professional development interact with other factors such as teacher demographics and prior experience with remote teaching (Ruzic & Marjanovic, 2021). Another significant gap in the research is understanding the long-term effects of ERT on teachers and teacher self-efficacy. While some evidence exists that teacher self-efficacy may be negatively impacted by the shift to ERT, it is not clear how long these effects will last or how they may evolve over time. A major gap also exists in the research on K-12 ERT; a lack of understanding of how to best support the teachers who teach students with special needs. Remote teaching can be particularly challenging for students with special needs, who required additional support and accommodations that were once commonplace in the face-to-face instructional setting (Smith & Smith, 2021). Research on how best to support students and special education teachers during ERT is extremely limited, and more research is needed to understand how to adapt special education services for ERT settings in the future.

Research on the effects of ERT on teacher self-efficacy was limited by the lack of cross-culture studies (Ross & Gray, 2020). ERT had impacted the entire globe, but studies were mostly

focused on one culture or region, which made it somewhat difficult to generalize and apply the findings. There was a lack of research investigating the impact of ERT on the self-efficacy of teachers working in specific subject area specializations, such as special education or STEM (Chen & Liang, 2021). Understanding how ERT affected the self-efficacy in these fields may help to identify areas where additional teacher support may be needed.

While research on teacher self-efficacy and ERT has just begun to shed light on the challenges and opportunities presented by this new model of teaching, there are still gaps in the understanding. Further research is needed to better understand how different factors interact to impact teacher self-efficacy during ERT, the long-term effects of this model of teaching, the effects of ERT on teacher self-efficacy in different cultures and subject areas, and how to best support teachers and students during this challenging time and prepare for future catastrophic events (Chen & Liang, 2021).

THEORETICAL FRAMEWORK

The main theoretical framework that supported teacher self-efficacy research was primarily based on the two major theories: Bandura's Social Cognitive Learning Theory and Rotter's Locus of Control Theory. Bandura's Social Cognitive Learning Theory maintained that individuals acquire certain behaviors through observation and imitation of others and that self-efficacy beliefs played a significant role in the process. According to Bandura's Social Cognitive Learning Theory, individuals who believed they could successfully perform a task were more likely to engage in that task and to persevere in the face of obstacles or challenges that arose. On the other hand, Rotter's Locus of Control Theory suggested that individuals had different beliefs about the degree to which they could control the events that affected their lives. Those

individuals who possess an internal locus of control believe that they are in control of their own destiny, while those individuals who possessed an external locus of control believe that external factors far beyond their own control shape their lives. Those individuals with an internal locus of control are more likely to have high self-efficacy beliefs.

Both of the above theories were utilized over the years to explain teacher self-efficacy. Bandura's theory was used to suggest that teachers who observed successful role models and are provided with positive feedback and opportunities for success will develop much higher levels of teacher self-efficacy. Rotter's theory was used extensively to suggest that teachers who believed they had control over the outcomes of their students and their teaching behaviors would have higher levels of self-efficacy.

The research on teacher self-efficacy was extensive and continues to grow. Studies have shown that self-efficacy beliefs were positively associated with job satisfaction, commitment to the teaching profession, and effective teaching practices (Tschannen-Moran & Woolfolk Hoy, 2001; Hoy & Woolfolk, 1993; Pekrun et al., 2009). Studies have also found that self-efficacy beliefs could be enhanced through professional development opportunities, mentoring programs, and other forms of teacher support (Gibson & Dembo, 1984; Tschannen-Moran et al., 1993).

SUMMARY OF THE LITERATURE

The literature review attempted to analyze the notion of teacher self-efficacy within the context of ERT during the COVID-19 pandemic, including the associated effects of mandatory school shutdowns, online learning formats (asynchronous vs. synchronous). The literature review evaluated the connections between Rotter's Social Learning Theory, Locus of Control, RAND Corporation studies, Albert Bandura's Self-Efficacy Model and self-efficacy research studies.

The literature review uncovered that the COVID-19 pandemic and the sudden shift to ERT had a significant impact on teacher self-efficacy with some teachers reporting lower levels of self-efficacy due to the many challenges associated with remote instruction. The literature review also discovered that online learning for students and online instruction for teachers, regardless if it was in the asynchronous or synchronous format, had different impacts on teacher self-efficacy. It also evaluated the impact that various factors had on teacher self-efficacy during ERT, especially age, gender, teaching experience, and subject area specialization. The literature review found that teacher self-efficacy was influenced to an extent by the above factors, however the specific impact and final results varied across studies.

Based on the literature, teacher self-efficacy pertains to a teacher's confidence in their own ability to achieve success when carrying out job-related tasks. Research supports that teacher self-efficacy is positively associated with job satisfaction, teacher effectiveness, and student academic achievement.

The relationship between Rotter's Social Learning Theory and Bandura's Self-Efficacy Model and how it impacted teacher self-efficacy was examined. Rotter's Social Learning Theory proposed that an individual's behavior is a direct reflection of the expectation and outcomes of their actions. According to the literature, a teacher who possessed a high level of self-efficacy expectations were likely to engage in teaching behaviors and lead to positive student achievement outcomes. Bandura's Self-Efficacy Model emphasized the role of behavioral, environmental, and personal factors in helping form an individual's self-efficacy beliefs. When applied to teaching, personal experiences, feedback from students and colleagues, and environmental support such as professional development and access to needed resources can all contribute to a teacher's self-efficacy beliefs.

Overall, the literature found that the combination of Rotter's Social Cognitive Learning Theory, Bandura's Self-Efficacy Model, and other research studies provided a comprehensive understanding of the factors that impact teacher self-efficacy. It highlighted the importance of addressing teacher self-efficacy within the educational setting and how it came to be connected towards improving student outcomes. Although the literature review emphasized the significance of teacher self-efficacy within the teaching profession, gaps in the research exist and further research is needed to deepen the understanding in the relationship between teacher self-efficacy, especially during the COVID-19 pandemic, ERT, and similar disruptive circumstances.

Chapter III will present a comprehensive examination of the research methodology, including the research questions, the researcher's role, the study location and population, the sample size, and the data collection process and procedures. This section provides essential information to understand the research study as well as its execution.

CHAPTER III

METHODOLOGY

The purpose for this qualitative research study was to examine high school teachers' perceptions of the factors that fostered and/or inhibited self-efficacy during ERT as a result of the COVID-19 pandemic. History has a tendency to repeat itself; schools could experience a similar shutdown as a result of a pandemic or natural disaster and the data gained from the research study could help prepare school districts for future emergencies including inclement weather closings and planned online learning days.

The overarching research question that guided the study was:

1. What are teacher perceptions of self-efficacy during COVID-19 emergency remote teaching?
 - 1a. What are high school teachers' perceptions of the factors that foster self-efficacy during emergency remote teaching?
 - 1b. What are high school teachers' perceptions of factors that inhibit self-efficacy during emergency remote teaching?

DESIGN

This study utilized a qualitative case study design. A case study was appropriate in this situation as research focused on a single site (Creswell, 2009). One goal of qualitative research is to gain insight into subjective experiences, exploring attitudes, beliefs, and the motivation of individuals or groups of individuals, and to provide a rich understanding of complex cultural or social phenomena.

For this study, in-depth interviews were used which allowed the researcher to gather detailed and context specific-data. The data were then analyzed using interpretive methods such as content analysis and thematic analysis which aided in identifying patterns, themes, and perspectives.

OVERVIEW OF METHODS

The research study sample was made up of 14 teachers, including at least one from each of the academic departments who were employed at Everyday High School during the spring 2020 school year when the COVID-19 pandemic school shutdowns occurred. Everyday High School is located in a wealthy suburban community in Northern New Jersey. An attempt was made by the researcher to recruit a teacher from each department with four years or less experience and a teacher who had five or more years' experience (see *Appendix B*). In some cases, the literature indicates that self-efficacy can be influenced by years of experience as a teacher.

Everyday High School serves students in grades 9th through 12th from two neighboring towns, with a student population of less than 1,000 total students. Data collection was in the form of semi-structured interviews held via video conferencing after contracted teacher work hours. The research study interview questions were generated by the researcher, solely based on the prevailing literature on teacher self-efficacy, utilizing an open-ended format (see *Appendix D*). Interview participants were volunteers, and the researcher was not an employee of Everyday High School or the school district at the time of the participant interviews. There were two rounds of interviews and each interview lasted approximately 60 - 90 minutes. The first round was based on the prepared list of interview questions. The second round was used to follow-up

based on initial responses as necessary. All interviews were recorded as part of the data collection process and were later transcribed and coded by the researcher.

RESEARCHER'S ROLE

At the time of the research study, the researcher was no longer employed at Everyday High School as an administrator. The researcher was employed at Everyday High School for three years previously and was part of the administrative team during the COVID-19 pandemic school shutdowns. At that time the school district did not provide any designated training to prepare teachers for ERT. The researcher was involved with teacher support during the spring of 2020 and remembers watching teachers struggle to transition their lessons to an online format suitable for ERT.

Given the researcher's background as an online adjunct professor for the past 18 years and extensive training in a previous district utilizing Canvas, a learning management system (LMS), I felt frustrated when colleagues discussed the issues they were having with virtual learning or online learning during the spring 2020 school shutdowns. The researcher recognized that what we were expecting our teachers to do was not virtual teaching or online schooling, it was simply ERT.

Online teaching and virtual schools have a set curriculum structured specifically for remote teaching, but the Everyday High School did not. The Everyday High School teachers were expected to have their classes up and running for all of their students utilizing Google Classroom within a 48-hour time frame. Some staff had little to no experience with the online teaching format. Formal training for Google Classroom, remote teaching, online instruction or the sort was not provided to the teaching staff at Everyday High School prior to the ERT rollout.

SITE

Everyday High School was a four-year public high school serving students in grades 9th through 12th, located in a Northern New Jersey suburban neighborhood. Everyday High School was categorized as the secondary school within a comprehensive community public school district that served students in pre-kindergarten through twelfth grade serving two neighboring towns. The school district itself was composed of five schools, with an approximate enrollment of 2,646 total students. Everyday High School had an enrollment of 880 students during the 2019 - 2020 school year, and employed 69.6 classroom teachers on a full-time basis, which resulted in a student-teacher ratio of 12.1:1. Approximately, 48 students or 5.7% at Everyday High School were eligible for free school lunch and 7 or 0.8% were eligible for reduced cost school lunch. The average class size at Everyday High School was 19 - 22 students. 90% of Everyday High School graduates attended institutions of higher learning upon graduation. Everyday High School was driven by the mission to prepare all learners to make a unique, positive contribution in a complex global society. Everyday High School was committed to fostering the diverse talents and abilities of each and every child in an emotionally and physically safe environment.

PARTICIPANTS

The final sample included 14 total participants: 13 current teachers and one retired teacher. To ensure a diverse range of perspectives, I intentionally recruited a variety of participants, with a total of 14 individuals interviewed, consisting of 8 females and 6 males. The participants included one special education teacher, 13 general education teachers, one art teacher, two English teachers, three history teachers, three health and physical education teachers, one mathematics teacher, two science teachers, and two technology education teachers.

Interview participants ranged in age from 31 - 65 years of age and ranged from 7 - 39 years of teaching experience. Thirteen participants self-identified as Caucasian and one participant identified as Hispanic. Semi-structured interviews were conducted with all participants using a standardized set of interview questions. All interviews were recorded and transcribed.

The criteria for inclusion in the study were: the participants had to (1) be full-time certified teachers during the ERT conducted in the spring of 2020, and (2) have either less than four years' experience or five or more years' experience teaching. In cases in which a specific department did not have teachers with a variety of years of experience, the researcher will try to include teachers with the greatest variation in years of experience. The next section presents an overview of each participant.

PARTICIPANT OVERVIEW

R. O.

At the time in which the research study interview was conducted, R. O. was a mathematics teacher for 8 years at Everyday High School and in his 16th year of teaching overall. R. O. is described as a veteran teacher in the mathematics department, teaching many upper-level courses and is very involved within the school and community, especially extracurriculars. R. O. is respected by the students and staff. Students frequently stop by for an informal chat and to check-in with R. O.

R. O. shared during a portion of the interview:

My families and my students know who I am. I'm a known quantity. I'm not different any day of the week, you know, so I believe that you know the kids knowing me and then the

parents knowing me, they knew that I wasn't going to fluff around, and I wasn't just going to give them stuff to give them stuff. I needed to do work, and we did work, you know. We got further in the COVID year than I have ever gotten before.

R. O. has established strong relationships with his coworkers and the administrative team within the high school. He is involved in numerous leadership committees and is counted on often to assist in helping the building and district run smoothly. He makes valuable contributions at teacher leadership meetings, participates in interviewing potential staff members, serves as a mentor for novice teachers and coaches, and informally takes a pulse of the student body. R. O. has proved himself to be a trusted and integral part of the teaching staff at Everyday High School.

N. Y.

At the time in which the research study interview was conducted, N. Y. was an art teacher for 4 years at Everyday High School and in her 13th year of teaching overall. N. Y. is described as a newer teacher within the visual arts department, teaching a variety of courses ranging from ceramics to photography. She is extremely involved within the school and community, especially during the COVID-19 school shutdowns, offering students and staff virtual ways to participate in art contests and assisting in delivery meals to those in need. N. Y. is respected by the students and staff. Students frequently spend their lunch period with N. Y. engaged in art-related projects and initiatives that are experienced throughout the high school building.

N. Y. shared during a portion of the interview:

One thing I did is for those students that really wanted to create artwork at home, but didn't have the supplies, I made kits and delivered them to their houses with clay and tools and slip and handouts. I would drop off a box for these students. Some families helped me, parents specifically, like with some art supplies that we could then take to you know, to hand out to other students. There was a big volunteer day of service where I volunteered and drove around the town of Everyday High School and picked up food kits for low-income families. All these different families made, you know, twenty-four lunches for students. And then my car was full by the end of the day, and then I had to bring them to another drop off location. So, I think the community got really involved, that was a wonderful experience!

N. Y., despite being a new hire to the district at the start of the 2019 - 20 school year, she immediately immersed herself into the high school community, especially during the COVID-19 school shutdowns. She continually went out of her way to engage students and staff in art-related activities during the period of ERT. N. Y. is described by the administration as selfless and having a big heart, always willing to pitch in and help out for the greater good of the school and community; a true team player.

N. T.

At the time in which the research study interview was conducted, N. T. was a recently retired health and physical education teacher that had taught for 15 years at Everyday High School and a total of 24 years overall. N. T. is described as a retired teacher in the health and physical education department, specializing in freshman health, human sexuality, project adventure, CPR/ First Aid, and numerous physical education activities. He was very involved

within the school and community, including extracurriculars and after school events. N. T. was well- respected by the students, staff, and community members. Students looked forward to attending N. T.'s classes and continued long-lasting friendships with him long after they graduated.

N. T. shared during a portion of the interview:

Bizarrely, I actually thought, despite my reservations, I actually came out of it quite well, you know, technologically, a little bit more sound. And you know, I've obviously been on a few Zoom meetings with you now, so I've actually figured it out. But I just, I don't know you, you kind of, I think COVID kind of taught the students and to us as teachers, that you know, you can overcome things. So, I think the legacy of COVID is, you know, for students and teachers is like, you know what you know we can adapt. We'll learn, you know. We'll make it work! Might not be perfect, but you know, you know, I think, that's the message that I kind of took was, I got through! We got through it together! But again, you know, life will throw things at you, but you know we'll get over them. So, as I said, I, coming out of it, I was like, I think this experience might have made me a better teacher, you know, kind of thing in a funny way.

N. T. was a pillar within the school community whose departure was felt by staff and students alike immediately upon his retirement. He was depended upon by the administrative team and always available to help out after hours at school events. Above all, he was committed to his students and acted as a calming presence for them via Zoom during the COVID-19 school shutdowns.

E. N.

At the time in which the research study interview was conducted, E. N. was a teacher within the technology department for 16 years at Everyday High School and in her 16th year of teaching overall. E. N. is described as a veteran, respected teacher in the technology department, specializing in graphic design and yearbook classes. She possesses qualities of extreme attention to detail when it comes to her work and tends to get the most out of her students, especially her yearbook students. During the COVID-19 school shutdowns, E. N. faced unprecedented challenges with software access for her classes, but managed to forge ahead, lead her students, and successfully produce a yearbook for the 2019 - 20 school year.

E. N. shared during a portion of the interview:

I mean, I considered success that semester, I mean, I had to scale it back, right? So, my greatest success that semester was actually completing the yearbook. But the fact that the yearbook actually exists was my single greatest accomplishment, from that year! And I could not have done it without the students, without the input and help from the other students. And I recognized and acknowledged that by giving them each a scholarship at the end of the school year to thank them for their efforts, because there's no way one person can do that job. And they took on a tremendous amount of work and did a tremendous amount of work. But that was my definition of success that year was just getting that book finished. With regard to my other classes, you know we were marginally successful. Did they learn design? Yes. Did they get better at making things look better? Yes. Did they understand the concept of how to implement graphic design

elements, to put them together in a pleasing way. Yes. Did they learn all the skills I wanted them to learn? No.

E. N. can be described as passionate and dedicated, if she encounters a roadblock, she is determined to find a way for her students to get around it, following her lead. E. N. is well-respected by her students and in return serves as a motivator to many. E. N. is reliable, dependable, and is well-known for her sarcastic sense of humor.

F. O.

At the time in which the research study interview was conducted, F. O. was a teacher within the technology department for 8 years at Everyday High School and in his 12th year of teaching overall. F. O. is described as a respected teacher in the technology department, specializing in video production and broadcast journalism classes. F. O. over his career has been very involved within the school and community, including with his students in extracurriculars. F. O. is respected by the students and together in recent years they have been hosting podcasts as an extension of his broadcast journalism classes.

F. O. shared during a portion of the interview:

When it first began (COVID-19 school shutdowns), and we suddenly were thrust into it, and I don't mean the first week; because there were still moments where, as anybody that was involved in it remembers, there were still moments where we weren't sure if this was a temporary thing. And then we were, gonna you know, "flatten the curve," which was the phrase that was around a lot at that time, you know, where we were going to get back (in the school). Was this just a band aid until we were going to get back? You know, once

we got to the middle of April, where our spring or the beginning of April, wherever it was, where our spring break was over, and then we were still doing this for the week after spring break it, it became increasingly clear like this was something we needed to put more resources and more brain power behind because it wasn't going away. We weren't going to get back to business as usual, probably for the rest of that school year, and maybe even longer.

F. O. is a popular teacher amongst the student body, kids love his classes and enjoy his sense of humor and creativity. F. O. takes on leadership roles within the school including being an integral part of the teacher's union and is willing to assist administration as needed.

E. F.

At the time in which the research study interview was conducted, E. F. was a teacher within the history department for 6 years at Everyday High School and in her 7th year of teaching overall. E. F. is described as a young, fun, energetic, and respected teacher in the history department, teaching a variety of courses, including world history. E. F., over the course of her career has been very involved within the school and community, including with her students in extracurriculars and summer programming offered by the school district.

E. F. shared during a portion of the interview:

There was a heavy emphasis that parents felt like teachers were at their disposal because of the fact that everybody was home, and they felt that there was an opportunity to communicate with teachers at any point, whether it was during the school hours or after hours, and because of that, it put a big strain on the relationships with people. It was also

a bit harder to call and communicate to parents, which also changes the tone and perception of the message that is being relayed. Everything seemed to be digitalized. So, what was once a career that you felt like you could approach parents and speak to parents that turned very much so into teachers were at the parents' disposal, and that they could alter an assessment or alter a learning goal to better suit what they wanted their child to have grade-wise, if that makes sense. It felt as though we, the teachers, were really working for the parents and not necessarily for the student, and what we wanted the students to learn.

E. F. was looked upon to play a leadership role within her department during the COVID-19 school shutdowns, being labeled as technology savvy, having used Google Classroom in her lessons prior to COVID. E. F. is trusted by administration and is counted on to help out with extracurriculars and after school events on a daily basis.

E. S.

At the time in which the research study interview was conducted, E. S. was an English teacher for 16 years at Everyday High School and in her 23rd year of teaching overall. E. S. is known for asking critical questions, being very observant of students, noticing their needs, and willing to implement any and all accommodations in order for her students to succeed. E. S. teaches mostly college prep and enriched classes within the English department, she also willingly accepts late work from students that appear to be trying.

E. S. shared during a portion of the interview:

So, I think, like staying connected and engaged with students, which immediately would have sent us all into a spiral of like, not feeling like we were effective. So, I, you know, because I don't think they really didn't talk like it was torture. It was actually torture, so I think like, and it was so. It was like that, sometimes so delusional to just like you know, expect that they would talk because we would go in and be like, I'm just gonna make them talk. And they just wouldn't talk. And it was actually like crazy. It was crazy. And I am not the type of person who's like, I'm gonna give you points off for not speaking or not, you know. So, I would say, like keeping them present in the virtual classroom and hopefully engaged enough that they would contribute which I did find some like I found ways too. I did give them grades, for, like I did grade some certain discussions. I would make them like prep questions for discussion to submit you know, but I again had to kind of change it up. Enough that it didn't just become torture, like we need to torture them to get them to speak like I didn't want it to become like, if you don't speak, I'm gonna make you answer like 20 questions, right? So, I didn't want it to be punitive, but I think student responsiveness and engagement is kind of like always a metric of how well we're doing and I do think that I had to just kind of acknowledge that they were not comfortable with that, and that couldn't be the only metric like. The fact that they were showing up meant that, like some of them, they were there. I guess I had to focus on the kids that were like top shelf, right? Like, like there are going to be kids on the other end of the Zoom that do want to learn. And actually, wanna, you know, meet this text and be introduced to the text and think a little bit about the text and read it. So, I had to kind of focus on the kids who were going to show up and get over the fact that, like only a small handful of students would contribute on some days, and in order to kind of like maintain the momentum to

keep going because that was definitely discouraging, and it's impossible, like it was impossible to say, you know. So, you're going to write, and I'm going to give you feedback on it like you couldn't compensate by coming up with some alternative avenue every single day because it was just you were figuring out how you were going to deliver instruction the next day.

E. S. is respected by the student body and her peers. E. S. serves as a mentor for her students and is heavily involved in the literary publications within the school. Each school year, numerous students ask E. S. to write them letters of recommendation for their college applications. She does so willingly and thoughtfully, being greatly invested in their future educational journeys.

H. Z.

At the time in which the research study interview was conducted, H. Z. was a special education teacher within the history department for 7 years at Everyday High School and in his 10th year of teaching overall. H. Z. is described as very involved within the school community, especially extracurriculars. H. Z. has high expectations for his students, regardless of ability, and genuinely wants to help them. H. Z. teaches a variety of classes as a special education teacher within the history department and has periods of the day where he serves as an in-class support teacher with other teachers.

H. Z. shared during a portion of the interview:

I think I was able to accomplish what I wanted to accomplish. Obviously, we would be able to do more in the classroom, just because of the materials on hand that we have

there, and also the limitation of you know, some students, you know, maybe didn't have the strongest Wi-Fi connection, or you know, especially my students with an autism spectrum disorder, maybe, you know, didn't know their way around the computer as well as other students. So that made it a little difficult at times if they didn't. Couldn't like figure out how to put on the camera or if they didn't know how to, you know, share their screens. Things like that, made it a little bit tough and definitely I tried to engage them as much as possible.

H. Z. has experience teaching at both the middle and high school levels. H. Z. makes it a point to send documents home to the students in their native languages. H. Z. communicates effectively and frequently with parents and administration.

S. N.

At the time in which the research study interview was conducted, S. N. was an English teacher for 11 years at Everyday High School and in his 11th year of teaching overall. S. N. is described as having a brilliant mind, an unmatched love of literature, being super nice, and helps out with numerous extracurricular activities. S. N. teaches mostly college prep courses, junior English classes and some senior level electives within the English department.

S. N. shared during a portion of the interview:

At the beginning of the time during the COVID-19 emergency remote teaching, I felt challenged by the circumstances, and I also felt excited in those circumstances, because I saw it as an opportunity to do something that hadn't been done before, and I also saw it as a personal test of my abilities as an educator. I'm someone who deeply loves my content

and deeply loves my students. And I said, okay, having those two things I can still do my job. I can do my job in any circumstance. It doesn't matter. The pandemic will be challenging and remote instruction via Zoom will be challenging, but me loving what I do, me loving my content, me loving my students will be enough, and I felt very confident at the beginning of that process that I could do it.

S. N. is well respected by students and colleagues alike. He is thoughtful and cares deeply about his colleagues, students, and the school community as a whole. S. N. is a top-notch educator who truly immerses himself into all that he does.

A. A.

At the time in which the research study interview was conducted, A. A. was a health and physical education teacher for 10 years at Everyday High School and in her 13th year of teaching overall. A. A. is described as a nice, caring, and dedicated teacher that is very involved with student extracurriculars. A. A. teaches mostly junior/ senior classes in the health and physical education department.

A. A. shared during a portion of the interview:

I got more comfortable as time went on, but overall effective, wise. I just think that as students got more comfortable, and they kind of knew how to go about the Zoom calls and what they can get away with, what they couldn't get away with, you know, made it the challenging part. So did I think overall I was really effective? Sometimes, and then other times, I thought, you know, it just wasn't really effective at all. I don't know if they actually got the information, and they like took it all in.

A. A. is respected by colleagues and students enjoy her classes, especially health. A. A. is the true definition of a team player and serves as a positive role model both within and outside of the classroom for her students.

N. K.

At the time in which the research study interview was conducted, N. K. was a health, driver, and physical education teacher for 12 years at Everyday High School and in her 14th year of teaching overall. N. K. is described as a leader within the health and physical education department, stern, but kind towards her students, and having high expectations for their success. N. K. teaches mostly sophomore, junior, and senior classes within the health and physical education department.

N. K. shared during a portion of the interview:

I think kids could pretty much relate like just showing compassion to what they were going through and knowing that, they are like us teachers are here, are real humans, especially me, like I could relate to the kids. I knew it was a tough time. I think that was important to being effective, like knowing that we are on their side, or I was on their side. They are more willing to do things and show and perform in the classroom like a virtual classroom, just knowing that I completely sympathize with what they were going through.

N. K. is respected by the students and staff and is willing to assist with duties within the main office of the high school or at after school events when needed. N. K. connects with the student body easily and serves as a positive role model within the school community.

N. R.

At the time in which the research study interview was conducted, N. R. was a biology teacher for 4 years at Everyday High School and in her 16th year of teaching overall. N. R. is described as a very intelligent teacher with a great sense of style which is easily noticed by her students and colleagues. N. R. teaches mostly college prep and honors biology classes within the science department at the high school.

N. R. shared during a portion of the interview:

I became a lot more sufficient on different platforms because of COVID, I was able to better learn all of the platforms that Google had to offer. We've all gotten better on the Zoom. I've never used virtual labs ever until the COVID-19 shutdowns, so I've gotten better. I've gotten personally better, much better with technology and that would have never happened, if not for our time being remote. N. R. is respected by her students and colleagues and is willing to help out with school events. N. R. has been a crucial organizer of end of the year fundraiser activities for her students.

N. H.

At the time in which the research study interview was conducted, N. H. was a history teacher for 10 years at Everyday High School and in his 16th year of teaching overall. N. H. is very well liked by his students and has spent numerous years assisting with extracurricular activities. N. H. primarily teaches history courses that satisfy students' elective requirements.

N. H. shared during a portion of the interview:

Overall, you know we got through it. I think I taught the topics I needed to teach. I delivered instruction to students, and they responded with certain assignments. I definitely eased off on the, you know, whether you know certain standards of you know what would be an “A” what would be a “B,” that type of thing. So, in that regard you know, was it, was it world class instruction? No, I don't think so. You know, here were kids just getting by with, you know, with a sense of good enough that became an overarching theme. Good enough, because you know, good enough we're touching. You know, we're touching base with these students. So, I'm delivering the topic. I can check a box. I mean, I felt like a lesser teacher, because what I do in the classroom wasn't, you know, I wasn't able to do it, nor should I have been. I mean, you know, this was a stressful time, you know, and like I, I'll put a lot of weight on my own shoulders, but to hold kids accountable in that time period, I think. Would we be, you know, some kids got through it right? With no problem that they were fine. But I think a lot of kids really suffered stress wise, and too suddenly, you know, to go too heavy-handed on grades and things like that which, you know, there's always some subjectivity there. There's always, in my opinion, wiggle room especially with written assignments. So, I felt like my overall effectiveness, I yeah, I still, you know, I still did the job. I can't say that I did it that great. Was it effective or semi-effective? Yeah, somewhere in there. You know, because I certainly didn't reach the heights that you see before you. You know today.

N. H. is well-respected by his students and his peers. He serves as a positive role model and mentor for his students. N. H. is a skillful storyteller and has a unique gift of engaging his students.

E. G.

At the time in which the research study interview was conducted, E. G. was a science teacher for 37 years at Everyday High School and in her 39th year of teaching overall. E. G. is very well liked and respected by her students and colleagues. E. G. is very involved with the school and community including extracurricular activities. E. G. primarily teaches honors level physics classes.

E. G. shared during a portion of the interview:

Well, I think one of the things that the remote teaching reinforced for me was that the job of my job as a teacher is to encourage the students to learn and you know, and to give them the resources that they need to learn what I'm trying to help them to learn. And you know, like I always say, look, I know the physics, you're the ones who are trying to learn it. So, you know, I think that through the remote teaching it reinforced for me that what I'm doing is providing them opportunities, opportunities to look into things, to explore information to, you know, to try to make sense of it in their own, in their own minds. So, I guess, you know, I'm going off here, but could I have taught remotely in you know, in the year, even, you know, like in the late nineties. No, I didn't have the online labs. I didn't have the access to the materials that I do on the online, the Internet, or resources. So, what I was able to do? Probably the most successful was to get the students to perform online activities and then report back to me and to the class on what they were able to achieve and what they learned through these activities. For example, I had students where they made their own little videos, and they would make their videos on a particular topic that they get assigned to them, and at one point they had to do a

demonstration and explain the demonstration and videotape themselves doing that demonstration. I think they enjoyed that, I think the more I was able to get them to do, not just, I didn't actually stand in front of the computer like we're doing now and talk to them. That was not the way that I approached this remote learning. I did that for a little bit, and then I set them off with something, a task that they would then come back to me with. And I feel like that really, I feel that really got them more involved in the work that I was doing, and honestly, they did it. I didn't have any issues. I don't, you know, I don't know why, but I didn't have any issues with kids just zoning out and not completing what I was asking them to do. So yeah.

E. G. serves as leader in her department and a mentor to her peers especially within the science department. She is dedicated to helping her students learn and grasp key scientific concepts. E. G. intentionally participates in activities that strengthen school culture and promotes opportunities for her students. She also dedicates her time to students' extracurricular activities.

Below is a detailed summary of interview participant descriptions (see *Table 1*) that includes age, sex, department, 2020 tenure status, total years of teaching experience, and years at Everyday High School.

TABLE 1*Summary of Participant Descriptions*

Participant/ Case #	Age	Sex	Department	2020 Tenure Status?	Total Years of Teaching Experience	Years at Everyday HS
R. O./ 1	40	M	Mathematics	Yes	16	8
N. Y./ 2	37	F	Visual Arts	No	13	4
N. T./ 3	56	M	Health & PE	Yes	24	15
E. N./ 4	54	F	Technology	Yes	16	16
F. O./ 5	41	M	Technology	Yes	12	8
E. F./ 6	31	F	History	No	7	6
E. S./ 7	46	F	English	Yes	23	16
H. Z./ 8	32	M	History	Yes	10	7
S. N./ 9	34	M	English	Yes	11	11
A. A./ 10	39	F	Health & PE	Yes	13	10
E. K./ 11	35	F	Health & PE	Yes	14	12
N. R./ 12	40	F	Science	No	16	4
N. H./ 13	51	M	History	Yes	16	10
E. G./ 14	65	F	Science	Yes	39	37

DATA COLLECTION

The comprehensive data collection process was executed solely by the researcher in the form of two rounds of semi-structured interviews, which formed an integral component of the qualitative research design. The intentional use of semi-structured interviews ensured that the study participants were able to express their thoughts, ideals, and experiences in a manner that was unrestricted by predetermined instruments or scales (Creswell & Creswell, 2018). By

adopting a qualitative approach, the researcher was able to delve into a broad range of topics pertaining to teacher self-efficacy, ERT, and the COVID-19 pandemic. Which in turn enabled participants to share their unfiltered views and perceptions of their personal experiences without hesitation.

The semi-structured interviews proved to be an effective tool for capturing rich data sets, which allowed the researcher the flexibility to modify and tailor interview questions as needed. Such an approach allowed the researcher to solicit in-depth and detailed responses from the participants, enabling them to share their authentic experiences. The data collected through the interviews formed into valuable resources, providing invaluable insights into the complex connection of factors that impacted teacher self-efficacy and emergency remote teaching, during the COVID-19 pandemic.

Participant interviews were conducted after school hours and/or during summer break via Zoom video platform either from the teacher's classroom or their home residence. The duration of the participant interviews ranged from 60 - 90 minutes. Interview questions were intentionally formatted by the researcher to be open-ended in nature in order to provide each participant an opportunity to share their perceptions (see *Appendix D*). The researcher reached out to teachers at Everyday High School through e-mail solicitation (see *Appendix B*) to recruit participants for the research study after receiving approval (see *Appendix E*) from Seton Hall University's Institutional Review Board (IRB). The identities of the research participants were kept confidential; only the researcher knew the identity of the participants. Upon interview completion via Zoom, the participants were given the opportunity to review their transcribed interviews. In order to collect comprehensive data for the research study, a series of semi-structured interviews were conducted. The participant interviews were guided by open-ended

questions derived from the literature review and preliminary findings. The open-ended nature of the questions allowed the participants to express their opinions and perspectives freely and in detail, resulting in a wealth of qualitative data that immensely enriched the research study. The interview questions were tailored to extract as much relevant information as possible that pertained to the research questions, which ensured that the data gathered was highly pertinent to the research study. The researcher allowed for snowballing of responses and prompted follow-up questions during instances in which participants began to bring up multiple themes within one response.

To preserve the integrity and accuracy of the information collected, each interview was digitally recorded and transcribed verbatim by the Zoom video platform. The transcripts served as a reliable and comprehensive source of data that could be analyzed systematically to identify themes and patterns. The researcher reviewed the transcribed interviews and looked for themes from the literature and theories.

INTERVIEW THEMES

The participant interview questions primarily focused on issues that the researcher noticed in the literature and observed while completing teacher evaluations during ERT, within virtual classrooms during the COVID-19 school shutdowns. The interview questions emerged from the following themes:

Perceptions of Overall Effectiveness. This theme explores participants' reflections on the effectiveness of their teaching both before and during the COVID-19 school shutdowns, essentially shedding light on the continuity or disruptions in their instructional practices within their individual classrooms.

Self-Efficacy in Emergency Remote Teaching. This theme revolves around participants' perceptions of their own capabilities in the context of ERT, aiming to uncover their confidence levels, adaptive strategies, and the challenges they faced during the sudden transition.

Confidence and Effectiveness during Emergency Remote Teaching. This theme focuses on specific instances where participants felt confident and effective in their teaching during the shift to ERT. It aims to identify the factors contributing to their confidence and success.

Factors Contributing to Self-Efficacy. This theme explores the factors that participants believe played a pivotal role in enhancing their self-efficacy during ERT, providing insights into the elements that positively influenced their teaching experiences.

Challenges and Inhibited Self-Efficacy. Participants' experiences of feeling less confident and effective during ERT are explored in this theme. It also aims to identify the challenges faced and the factors inhibiting their self-efficacy during this period.

Definition of Success in Emergency Remote Teaching. This theme investigates how participants define success in the context of ERT and explores the relationship between their sense of self-efficacy and their perception of success.

Impact of Policies and Supports. Participants' perspectives on how school and district policies and supports influenced their self-efficacy during ERT are explored, shedding light on the external factors shaping their experiences.

Role of Relationships with Students and Families. This theme examines the impact of educators' relationships with students and their families on their self-efficacy during ERT, providing insights into the interpersonal dynamics influencing their teaching experiences.

Collaboration with Colleagues. The role of collaboration with colleagues in shaping participants' self-efficacy during ERT is explored, highlighting the importance of teamwork and shared experiences.

Strategies for Maintaining or Enhancing Self-Efficacy. Participants' strategies for maintaining or enhancing their self-efficacy during ERT are investigated, providing practical insights into coping mechanisms and resilience.

Closing Reflections. The final question invites participants to share any additional thoughts or insights they deem relevant to the study, allowing for a more comprehensive understanding of their experiences.

The interview process was conducted during the months of June, 2023 through August, 2023. All interviews were conducted via Zoom video platform at a time outside of the participants' contracted work hours. Participant interviews primarily lasted between 60 - 90 minutes in length. For this study, participants were interviewed twice. Participants were allowed to read and review their first interview to check for meaning (member checking), before proceeding to the second interview (as necessary). All participants had the opportunity to read their first interview transcript and provide feedback to the researcher.

The following are examples of the interview questions that were asked of each interviewee. In addition to the below questions, I also used probes (follow-up questions) as the interview progressed to develop an even deeper understanding of underlying issues.

PARTICIPANT INTERVIEW QUESTIONS

1. Describe your perception of the overall effectiveness of your teaching the year prior to the COVID-19 pandemic.
2. What are your perceptions of self-efficacy in the context of emergency remote teaching?
3. Can you describe a time when you felt confident and effective in your teaching during the shift to emergency remote teaching?
4. What factors do you believe contributed to your self-efficacy during that time?
5. Can you describe a time when you felt less confident and effective during emergency remote teaching?
6. Describe your perception of the overall effectiveness of your teaching during emergency remote teaching.
7. What factors do you believe inhibited your self-efficacy during that time?
8. How do you define success in the context of emergency remote teaching, and how does this relate to your sense of self-efficacy?
9. In your opinion, how have school and district policies and supports impacted your self-efficacy during emergency remote teaching?
10. How have your relationships with students and their families impacted your self-efficacy during emergency remote teaching?

11. What role does collaboration with colleagues play in your self-efficacy during emergency remote teaching?
12. What strategies have you used to maintain or enhance your self-efficacy during emergency remote teaching?
13. Is there anything else you would like to add or share with me?

ANALYSIS

Throughout the transcription process, the researcher engaged in ongoing analysis of the data. The researcher transcribed the interviews using the Zoom video platform and coded the data from each interview into various categories such as themes, indicators, and qualifications that are causally related. Themes are essentially patterns identified in the data that serve to describe and organize the researcher's observations. Well-crafted and thoughtful themes not only describe the phenomenon, but also offer interpretations.

The process of creating a coding system involves multiple stages. First, the researcher must carefully scrutinize the collected data to identify commonalities, patterns, and themes. Then, the researcher must create a list of words and phrases that accurately capture the topics and patterns, which will serve as the coding categories. The process allows the researcher to effectively organize the descriptive data that was gathered, enabling the researcher to separate information related to a specific topic from other, unrelated data (Creswell & Creswell, 2018).

The start list of codes assisted my thinking, organized my data, and helped to steer my focus in the right direction. The following is a glimpse into a few of the items on my start list and

how they fell under the umbrellas of the four major self-efficacy themes, mastery experiences, vicarious experiences, social persuasion, and physiological arousal:

MASTERY EXPERIENCES

- Confidence and Mastery
- Reflective Teaching Practices
- Continuous Improvement and Professional Growth
- Experience and Expertise
- Positive Outlook and Optimism

VICARIOUS EXPERIENCES

- Adaptability and Flexibility
- Student-Centered Approaches
- Communication and Transparency
- Teacher Beliefs and Self-Awareness
- Challenges and Uncertainty Management

SOCIAL PERSUASION

- Technology Competence and Innovation
- Positive Outlook and Reflection
- Resourcefulness and Connection

- Human Connection and Relationship Building
- Collective Support and Resilience
- Collaboration and Support
- Resourcefulness and Adaptation
- Experience and Continuous Reflection

PHYSIOLOGICAL AROUSAL

- Assessment Challenges
- Student Engagement Difficulties
- Challenges in Building Relationships
- Uncertainty and Adaptation
- Technology-Related Challenges

In this research study, qualitative data analysis played a pivotal role in uncovering rich insights from participant interviews on teacher self-efficacy. To ensure systematic and rigorous analysis, a comprehensive codebook was developed as a guiding framework for organizing and interpreting the data. The codebook example presents in detail in this section, delineates key themes and concepts identified through an iterative process of data familiarization and coding. Each code is accompanied by clear definitions and illustrative examples extracted directly from the dataset. By establishing a standardized approach to coding, the codebook not only facilitated consistency and reliability in data interpretation but also provided a transparent methodology for subsequent analysis. The following example excerpt from the codebook (*See Table 2*) offers a

glimpse into the systematic categorization of participant feedback, showcasing the structured approach adopted in this study.

TABLE 2

Code Book Example

Label	Engagement
Definition	The active and enthusiastic participation of students in the learning process, reflecting their genuine interest, curiosity, and commitment.
General Description	Refers to the degree of involvement, interest, and active participation individuals demonstrate in a particular activity, context, or relationship. It encompasses both the cognitive and emotional aspects of one's investment and interaction, reflecting a sense of connection, enthusiasm, and commitment to the task or experience at hand.
Description of Inclusion and Exclusion	<u>Inclusion</u> - for a set of data from the interviews to qualify for this code, the participant must allude to student engagement during their experience with ERT. <u>Exclusion</u> - for a set of data from the interviews to be excluded from this code, if the participant makes no mention of student engagement during their experience with ERT.
Examples of Inclusion and Exclusion	<u>Inclusion</u> - I started to realize the kids were being engaged back, and then, you know, you could see them then showing their faces. <u>Exclusion</u> - Just because my class is so reliant on technology, not having access to the technology was hugely detrimental to my teaching.
Sub-code	<u>Cognitive Engagement</u> - any piece of data that suggests the students were cognitively engaged during ERT. <u>Behavioral Engagement</u> - any piece of data that suggests the students were behaviorally engaged during ERT. <u>Emotional Engagement</u> - any piece of data that suggests the students were emotionally engaged during ERT.

SINGLE CASE ANALYSIS

Within the analysis phase, the researcher approached each participant interview as a distinct case, aimed to capture their unique experiences and perspectives. To achieve this, the researcher utilized a Within Case Display technique to summarize each participant, which enabled the researcher to create explanatory narratives that delved into their individual viewpoints (Creswell & Creswell, 2018). The narratives were then employed to identify fundamental patterns and themes, a crucial step prior to constructing a broader conceptual framework based on key trends, commonalities, and other significant findings (Creswell & Creswell, 2018).

CROSS-CASE ANALYSIS

After gaining a thorough understanding of each participant's experience and perspective on teacher self-efficacy and ERT during the COVID-19 pandemic, the researcher proceeded to the second phase of analysis, known as cross-case analysis. In order to construct a conceptual framework that displayed the most dominant themes, the researcher reread each interview and its codes. The dominant themes were then broken down into factors highlighting the existing relationships (Creswell & Creswell, 2018). Through the process, trends and themes were identified and displayed in the form of descriptive narratives, which provided both explanations and descriptions that answered the research questions. The technique helped the researcher to gain a better understanding of the research findings and enabled the researcher to draw more robust conclusions.

VALIDITY ISSUES/ TRUSTWORTHINESS

This study took several measures to ensure the trustworthiness of its research findings. Firstly, the study maintained detailed records to ensure that data interpretation methods remained consistent throughout the research process. Reflective memos were used to acknowledge and address any personal bias that may have influenced the findings. As an educational leadership doctoral student, the researcher recorded various experiences and discussed them with trusted mentors to obtain invaluable feedback that helped to avoid making assumptions about shared experiences with the participants. The study employed peer debriefing and respondent validation to minimize the risk of researcher bias or misinterpretation of data. By employing these approaches, the study was able to establish the rigor and reliability of its findings.

TEACHER SELECTION

Were enough teachers interviewed for the research study? Did I bias the participant data with the types of teachers that participated in the interviews? I purposefully recruited participants in order to get a cross section of perspectives. The final sample included 14 total participants: 13 current teachers and one retired-teacher. To ensure a diverse range of perspectives, I intentionally recruited a variety of participants, with a total of 14 individuals interviewed, consisting of 8 females and 6 males. The participants included one special education teacher, 13 general education teachers, one art teacher, two English teachers, three history teachers, three health and physical education teachers, one mathematics teacher, two science teachers, and two technology education teachers. Interview participants ranged in age from 31 - 65 years of age and ranged from 7 - 39 years of teaching experience. Thirteen participants self-identified as Caucasian and one participant identified as Hispanic.

Due to the fact that my sample size was limited to 14 participants, in order to gain the maximum amount of data from each interview I was methodical with my questioning and probing techniques. All interviews were recorded and transcribed via Zoom video platform. If a participant did not fully answer a particular question during the first round of questioning, I made sure to circle back with the participant and restate the question at a later time during the interview.

SITE SELECTION

When selecting a research site, it was important to consider whether the participant data collected would have broader applicability for future studies. The specific high school the researcher chose to focus on was a typical 9th – 12th grade high school, lacking any unique characteristics that would set it apart from other schools within the school district. The school offers a rigorous curriculum to its students with a variety of core and elective classes held across its schedule, and boasts a high-performance rate, with 90% of graduates moving on to a college or university post-graduation. With a start time of 7:45am and end time of 2:00pm, these characteristics collectively suggest that the findings of the study may be useful to administrators and teachers who find themselves working in a similar high school educational setting.

RELIABILITY OF PARTICIPANT INTERVIEWS

One challenge in gathering data from teachers was ensuring the authenticity of their responses, as it is possible that they could feel compelled to provide overly positive feedback in order to avoid casting their school or school district in a negative light. To address the concern, the researcher took several measures to increase the likelihood of obtaining truthful and genuine responses. First, the researcher made it clear to the interviewees (teachers) that I held zero

supervisory or authoritative position over them since I did not work in the Everyday High School anymore, and in order to minimize any pressure they may have felt to provide a certain type of feedback. Next, the researcher assured the interviewees that their responses would remain confidential and that their identity would be protected. To further put the participants at ease, the researcher conducted the interviews via Zoom video platform from the comfort of their own classrooms or residences. Finally, to mitigate the potential impact of school year variation on participant responses, the research conducted all of the interviews during the months of June, July, and August 2023.

ETHICAL ISSUES

In considering the potential ethical implications of the research study, it is important to address the question of whether the teachers involved may have been harmed in any way as a result of their participation. Although the ethical concerns associated with the study are relatively minor, they nonetheless warrant attention. One potential risk is that the participants may become aware of potential ERT issues that occurred during COVID-19 pandemic at Everyday High School. Despite the fact that the participant data collected during the interviews was not to be shared with the participants themselves, there was a risk that the interview participants may discuss their experiences with one another. Unfortunately, the researcher was not able to eliminate this risk; it cannot be entirely eliminated.

Teacher self-efficacy research was primarily supported by two major theories: Bandura's Social Cognitive Learning Theory and Rotter's Locus of Control Theory. Bandura's theory emphasized that individuals who believed in their ability to perform a task were more likely to engage in it and persevere through challenges. Meanwhile, Rotter's theory suggested that those

with an internal locus of control were more likely to have high self-efficacy beliefs. Both theories were used to explain teacher self-efficacy, and research has shown that self-efficacy beliefs are linked to and associated with job satisfaction, commitment to the teaching profession, and effective teaching practices. Professional development opportunities, mentoring programs, and teacher support can also enhance teacher self-efficacy beliefs.

In Chapter III, the focus was on the methodology of the qualitative research study. This encompassed a comprehensive examination of the research design, an overview of the methods employed, clarification of the researcher's role, and detailed discussions on the site and participants. The chapter included a participant overview and descriptions, explained the data collection process, interview themes, and participant interview questions. Insights were provided into the analysis phase, featuring a code book example, single case analysis, and cross-case analysis. The discussion extended to considerations of validity issues and trustworthiness, addressing teacher and site selection, as well as ensuring the reliability of participant interviews. Ethical issues were also conscientiously examined throughout the chapter.

Chapter IV, will focus on presenting the research findings, with particular emphasis on exploring Albert Bandura's self-efficacy beliefs. The study meticulously examines the pathways leading to the development of teacher self-efficacy, encapsulating the transformative influence of mastery experiences, vicarious experiences, social persuasion, and physiological arousal. This chapter unfolds the intricate connections between these elements, shedding light on the nuanced factors contributing to the enhancement of teacher self-efficacy.

CHAPTER IV

RESEARCH FINDINGS

The purpose of this qualitative research study was to examine high school teachers' perceptions of the factors that fostered and/or inhibited self-efficacy during ERT amid the COVID-19 pandemic. This encompassed an exploration of high school teachers' perceptions on their own self-efficacy amidst the challenges posed by ERT during the COVID-19 pandemic. The investigation predominantly centered on high school teachers across various subject areas employed at Everyday High School during the 2019 - 20 school year. Utilizing semi-structured interviews, I sought to delve into the factors that either fostered or inhibited self-efficacy during ERT. Pseudonyms were employed to safeguard the identity of the participating teachers in this voluntary research study. By concentrating on the perceptions of high school teachers, this study ensures that the data captures the genuine experience of the participants.

In this chapter, I will provide a brief description of the five most common themes that surfaced from the semi-structured teacher interviews. These five themes are: (1) Adaptability and Flexibility, (2) Student-Centered Approach, (3) Communication and Transparency, (4) Resourcefulness and Connection, and (5) Challenges and Uncertainty Management. All five of the aforementioned themes surfaced organically from the participant interviews and collectively laid the groundwork for a structural framework. This framework aims to comprehensively explore teachers' perceptions of self-efficacy arising from their experiences during ERT and addresses the earlier posed research questions.

To further enrich the analysis of teachers' self-efficacy, Albert Bandura's theoretical framework, encompassing the four major self-efficacy themes, will be interwoven into the fabric of the emergent themes. Bandura's self-efficacy theory hypothesizes that individuals' beliefs in their capabilities influence their motivation, behavior, and overall success. The four umbrellas under which self-efficacy manifests are (1) mastery experiences, (2) vicarious experiences, (3) social persuasion, and (4) physiological arousal, they offer valuable lenses through which to scrutinize the factors influencing high school teachers' self-efficacy during the challenging circumstances of ERT and the COVID-19 pandemic.

1. Mastery experiences, as described by Bandura, involve individuals drawing confidence from their past successes and accomplishments. In the context of ERT, teachers' mastery experiences may pertain to successful adaptations to new teaching methods or overcoming technological challenges.
2. Vicarious experiences refer to individuals gaining confidence by observing others similar to themselves succeed. In the realm of ERT, high school teachers might have drawn inspiration and assurance by witnessing their colleagues effectively navigate the complexities of remote teaching.
3. Social persuasion involves the impact of verbal encouragement and support from others. During ERT, positive feedback from school administrators, colleagues, parents, or students could have significantly contributed to enhancing teachers' self-efficacy.
4. Physiological arousal, as per Bandura's framework, pertains to the influence of physiological reactions on self-efficacy. The stress and uncertainty inherent during

ERT could have had physiological effects on teachers, influencing their perceived self-efficacy.

VICARIOUS EXPERIENCES: ADAPTABILITY AND FLEXIBILITY

Throughout the interviews participants without question emphasized the importance of being adaptable and flexible in response to the challenges they faced while implementing their lessons and teaching their students in the virtual classroom setting during ERT. This theme really highlights and encompasses the participants' ability to adjust their teaching strategies, methodologies, and plans based on the dynamic and sudden nature of the remote teaching environment as a result of the COVID-19 school shutdowns. It is clear ERT had been uncharted territory to most educators, administrators, and school districts as a whole. Being adaptable and flexible with many aspects of teaching had become a necessity to get through the remainder of the spring 2020 school year.

It was undeniable when speaking to all interview participants, regardless of their subject specialization that they had to demonstrate a high level of adaptability and flexibility to get themselves and their students through the remainder of the school year. Make no mistake, this was something that was not planned, it seemed to be a theme that naturally progressed over time that occurred throughout their ERT experience. Examples of adaptability were changing plans on the fly, adjusting grade and student participation expectations, switching textbooks, removing “fluff” from the curriculum, even adjusting due dates for assignments and giving students flexibility in focusing on topics or activities that most interested them.

When inquiring about H. Z.'s perceptions of self-efficacy during ERT, he shared:

I think the biggest word that sticks out is just being able to adapt to what you like, the surroundings that you and your students have, like, basically like the materials that you think they might have on hand at home, and just, you know, developing lessons that gear towards that.

When discussing factors that teachers believed contributed to their self-efficacy during ERT, S. N. shared:

I think the experiences, the accumulated experience that I had as an educator, and the myriad of challenges that I had overcome in my experience as a teacher helped me feel confident in my ability to navigate that time. As an English teacher I have taught a myriad of courses. I've taught in class support classes, I've taught small classes as small as six, I've taught large classes as large as thirty. I've taught advanced placement courses and I have at least half a dozen preps prepared for my courses. I'm not afraid of new classes. I'm very flexible in my ability to work with students and parents and communities and balance individual needs with the needs of the group to modify and design assessments. My experience made me confident in my ability to deal with the challenges of the pandemic.

S. N. also mentioned:

I think there is a narrative that teachers tell themselves that helps us, and I'll speak to my experience in a moment, but I perceive that there is a narrative that teachers tell ourselves to find motivation and to find inspiration and circumstances where doing our job would be difficult. Right? So, if we have a student who is particularly difficult in a classroom environment, we will be flexible. And we will tell ourselves we'll make it work. We'll

make it work for my career. That has been my catchphrase - we're gonna make it work, right? So how can I reach this student? How can I meet this student where they are? How can I modify the content so that it works for them, right, or group of students right? I feel strongly that as an educator my skill to modify and be flexible, and to make my content accessible and rigorous is strong. I feel that I know how to do that. I feel that I am a master of my content, and a master of my ability to express it to my students in teaching. The circumstances during the pandemic and during emergency remote teaching were such that there is no narrative, we can make this work, you got it!

E. G., also commented on her perceptions of self-efficacy during ERT:

I think you really had to have confidence that you were going to be able to continue with what you were doing with the adjustments that had to be made. Obviously, there wasn't the same hands-on learning, there wasn't the same group work where you were seated across the table from the students. You weren't circulating through rooms, or, you know, through classrooms, excuse me, through desks with students in the classroom. The thing is, that I don't, I've never actually thought about my self-efficacy and obviously didn't think about it in advance, because we had no idea that it was going to occur, and I hadn't ever thought about it, you know, in terms of well, what would I ever do if I were forced to work from home and teach physics, like that was never, ever a thought of my mind in all the years I was teaching. So, I think that I had to respond quickly and just with the idea that we were gonna make this work, the students and I were going to make it work, and it was really just between us to make that work. I feel very blessed that I had a great group of kids at that time.

F. O. shared:

I think it was everything. I know as somebody who attempts to be a teacher leader in every building that I'm in, I tend to see the best and worst of that in some of my peers. It's always been how I've managed my own instructional practice because of the nature of what I teach - I'm kind of a singleton. So, if I don't have a strong sense of that, I'm not gonna succeed. So, I've always kind of found myself leaning on that as a strength of mine, and then you know, in the pandemic that was, that was no different. It just became, how do we? How do we change what we're trying to do? How do we adjust our goals so that they're realistic, not only for the instructor, but most importantly for the students, while also maintaining that contact with the administrative team. I was fortunate in the sense that the administrative team was not really sitting on me, making sure that I was doing X, Y, and Z. I think there was a trust there that I was going to attempt to get the most out of the situation as I could, but realistically, I think the fact that I was very self-sustaining benefited me in that process. It was not a new skill, a new set of circumstances, I've had to deal with it. I just had to apply it in a very, very life, changing environment.

In the midst of exploring strategies that teachers used to maintain or enhance their self-efficacy during ERT, A. A. shared:

I would say, just having confidence in myself. I mean, I've been a teacher, I've taught this subject area for a long time, so I just kind of told myself that it was something that you know has to be done, and sometimes you have to act differently on a whim, and just

being able to adapt. And you know, just being secure about yourself having that confidence.

When tasked with describing a time when R. O. felt confident and effective in his teaching during the shift to ERT, he stated:

I didn't do it like I would have done it in my classroom, it was much different but I was more straightforward in the way I approached each problem in each topic. I cut out so much of the fluff that wasn't necessary and I still, to this day, haven't gone back to what I did the previous year. I will get through more topics now, I get through the topics deeper now than I did previously. I think COVID really kind of focused me on what was really important in the material and the curriculum and kind of just get right to it. Now you know I don't fluff around a lot and I think being on Zoom prevented me from doing that. I didn't have a white board to write on, I didn't have a tablet to write on. I was writing with my finger on my touch screen and I just couldn't elaborate on things anymore, so I just got right to the point all the time. I think the main thing that gave me confidence was just getting right to the point of the big topic. They (the students) got that, and they focused on it, no fluff for them to pay attention to!

VICARIOUS EXPERIENCES: STUDENT-CENTERED APPROACH

Throughout the interviews participants undeniably highlighted the significance of maintaining a student-centered approach during ERT. This theme includes an intense focus on understanding and addressing individual student needs, whole class engagement difficulties, and building meaningful connections to ensure effective learning experiences. When describing a time when she felt confident and effective in her teaching during the shift to ERT, N. Y. shared:

So, within that first month, I feel we were all hopeful, and thinking of this is like a temporary situation, so I was trying to be very active with my students to keep them engaged in like the classroom setting or the school community. So, I developed different contests for students to do. We're taking photos that represent famous paintings, I had students create artwork with the materials that they had available at home. We had Zoom sessions with the students as a class or one-on-one sessions and also a lot of emailing back and forth.

E. S. spoke about factors that contributed to her self-efficacy at that time:

Not wanting to like knowing that it was somewhat cataclysmic, like not wanting to just let them (the students) spiral off and freak out, so, wanting to provide some regular check in and instruction and knowing that I had the tools the kids had, you know, because we were 1:1 with devices. I knew that I had the ability to at least try different things. I really didn't have too many train wreck lessons, but I don't know. Again, it was very difficult for me to evaluate the level of engagement, so that didn't feel great. I think that was what made it difficult to gauge self-efficacy or like actual efficacy. I think the fact that, like I, I could be totally delusional, right in terms of like my sense of self-efficacy. But I actually really think that my juniors liked the books I had them read and they actually stuck it out and read them.

VICARIOUS EXPERIENCES: COMMUNICATION AND TRANSPARENCY

Throughout the interviews participants identified clear and transparent communication as a critical factor in fostering self-efficacy. This theme involves effective communication strategies between teachers, students, and other key stakeholders, creating a sense of clarity and

understanding in the ERT learning environment. The communication tools that interview participants utilized during ERT included, Google Classroom, Google Meet, Zoom, email, text messaging, Remind, and telephone calls. The participants utilized such platforms to communicate with students, parents, colleagues, and school administration.

While discussing how relationships with students and their families impacted self-efficacy during ERT, H. Z. shared:

I definitely felt as though it was important to be in constant communication with them, and you know, just so they were aware of what we were trying to do. Because obviously they don't want their children's education to be halted or impacted, so kind of sharing what we were doing, and even, you know, obviously, we'd be able to see them in the background if they were in a common space. You know, and just making sure that you know that we had a more open dialogue for the students to have a good, strong communication between teacher and student.

When tasked with describing his perception of the overall effectiveness of his teaching during ERT, S. N. shared:

In terms of the success of my instruction, I don't know that my students were mastering the content that ordinarily they would be expected to master in that space (in-person setting). I don't feel that, that endeavor was successful across the board, right or not. Even with that degree, I think it is appropriate to say that the majority of my students met their learning goals, however, I feel it would be inaccurate. I don't feel that my students learned as much in emergency remote teaching as they ordinarily would, I do feel that it was communicated to my students explicitly and frequently that I was interested in their

learning, that I was interested in their success, and I gave them opportunities to engage. I modified the content to give them opportunities to process the unprecedented events that were going on around us. I feel that the communication to my students that their learning was important, and that their well-being was important, and that I cared about them was successful! I do not feel that there are learning outcomes that we met in that space. I don't feel that my students grew as much as they ought to have, or I would have planned for them to.

A. A. described a time when she felt less confident and effective during ERT:

I would say when I did not (feel confident) when students had their cameras off. I felt a little bit less effective, only because sometimes I thought I was just talking to myself, and was wondering if I was really engaging the student on the other side of the screen?

N. R. shared how she defined success in the context of ERT and how it related to her sense of self-efficacy:

So, for some of these kids, what they were going through at home far outweighs, you know how important school was at that time for them. Some of these kids had family members who passed away. Some of them had parents who were doctors and nurses who were home by themselves for huge stretches of time. Some of them were sick themselves, so success for me was measured on when they were in class. What they did, how did they look - happy? Did they look like they were happy to be there, were they? Were they, you know? Did they participate? And we even had a lot of it, was important for me not only to be able to teach in biology, but realistically like, how was their mental state of mind during this time because they're going through something. Kids are social, we know that,

based on the tremendous amount of social networking these kids, do! They're attached to their phones like it's a limb! So, for them to go from, you know, from that, from seeing each other every day, from playing sports, from being in clubs, even just sitting with each other when they would eat lunch. They're going from that to being completely isolated in terms of not having somebody else physically, or a friend physically with them. So, a big part of the success that year is like, were these kids able to maintain a healthy mental state of mind. So, we would spend a lot of time at the end of the class, we would just kind of, you know, how's everybody doing, things like that, just to make sure that they were okay during this time, and that really, that honestly, that was a huge part of my success. And I think, also to just like their success, being able to talk to kids that they normally wouldn't, wouldn't have been able to talk to, because they weren't in school anymore.

SOCIAL PERSUASION: RESOURCEFULNESS AND CONNECTION

Throughout the interviews, participants acknowledged the importance of being resourceful and establishing connections to enhance their self-efficacy. This theme encompasses the creative use of resources, collaboration with colleagues, and building supportive networks to navigate the challenges of ERT. It was clear throughout the interviews that participants relied heavily on being resourceful and connecting with their colleagues. Resourcefulness and connection showed up in many forms throughout the interviews, examples include sharing online software that complimented lessons, interactive online mathematics and science programs, social media platforms, and even educational blogs. Participants indicated that if they were struggling during ERT they frequently reached out to colleagues and administrators for advice, guidance, and reassurance.

When discussing the role of collaboration with colleagues and the role it played in one's self-efficacy during ERT, N. Y. shared:

I enjoyed the department meetings with my admin and fellow teachers. I think all of us just had our mouths open and were just going...What? What is happening to the world? And what can we do for our students? Specifically, I had constant contact with admin like you, as well as my fellow teachers like R. I., just kind of like troubleshooting ideas, bouncing off ideas. What can we do with the students? What materials do they have available working remotely? So, I think there was a lot of communication which was wonderful!

When asked how he defined success in the context of ERT and how it related to his sense of self-efficacy, N. T. shared:

When I started to realize the kids were being engaged back, and then, you know. You could see them then showing their faces. And hey, coach, how are you? And a lot of what it ended up wasn't necessarily about activity logs. It became conversations about how you guys are doing. And so, I think when I started to get the interaction back from kids, and then, you know, it wouldn't necessarily be the 45 or the 50 minutes, you know, it might be 25 minutes. But I think one of the things that I start to think is beginning to work is when I said, right, guys, have a good day! You're able to log off, anyone wants to stay on for a chat, they can. You know, there were times that I've liked, particularly. Some of the scene is, you have like 10 or 11 (students), would stay on because they're like, well, I'm not going to see you again (they were seniors). Line up and you just talk about life in general, how they were coping. So I thought, that was what really helped me as well

when it was easy for 25 kids to just go off, and the majority of them did. But you would always have someone who'd want to stay on just to chat about whatever and how they're doing. I remember one in particular, like I said it was the same as in, it's probably about a dozen. Just more or less, said, Coach, can I? Somebody said, can I stay on? We have a chat, so I think that really gives you a bit of a boost as a teacher. That again, was it really about the physical exercise or curriculum? No, but more about, more importantly, probably just talking stuff about life and where they go and what we think. So, I think that was a big part of the kind of building my confidence, and that's incredible! I love that!

When asked how her relationships with students and their families impacted her self-efficacy N. R. shared:

I guess that kind of circles back to what I was talking about a little while ago, the just being able to have those conversations with the kids while we were remote, checking in on how they were doing. I feel like that makes me a better teacher, because really, what it comes down to is, kids don't learn from people they don't like. So, if they're able to have that relationship and even like, you know, I've had conversations with their parents during this time, and some of the kids are doing well, and other kids were really struggling. I think that helps me. That gives me a better perception of not just how I'm doing teaching the curriculum, but also like, am I able to have those personal relationships with the kids that then will help me become or help me be a better teacher of the content. So that was really important, because I think the teachers are really good at finding different ways to teach the same thing.

When I inquired about success during ERT, N. H. added:

Success in the emergency context really was what we did every day. We had a scheduled class I could check in on my students. I could show them the cat sleeping, human contact. That was success. That was it. Like our standards for grades, just flew out the window. Success was human contact, because, you know, we were all confined to our homes or whatever spaces. It was so, I think success in an academic sense, kind of got suspended, and I think success was just let's just keep this relationship. We're getting through this together! And hopefully, the students got something, you know, something resembling education and instructional goals out of that period much different than what I consider success today, when you know, once we're back to normal, although frankly, those are, you know, those should be bare minimums, in my opinion.

VICARIOUS EXPERIENCES: CHALLENGES AND UNCERTAINTY MANAGEMENT

Throughout the interviews, participants discussed and shared various challenges and uncertainties they and their students faced during ERT. This theme involves the recognition of challenges, strategies for managing uncertainty, and the impact of these factors related to self-efficacy. It was apparent during the participant interviews that they (teachers and students alike) encountered numerous challenges and managed the uncertainty of the COVID-19 pandemic. Challenges included but were not limited to: technology issues, isolation, limited peer-to-peer contact, lack of resources, and unknown timelines for how long the school shutdowns would last.

When asked what factors inhibited his self-efficacy during ERT, R. O. shared:

Like my daughter in the house with me, was not like ideal. There was moments I was juggling, you know, making sure she was on class on her Zoom, and you know, like I go to the assessment piece to this day and I don't know how to approach what the right answer there was with assessing. I don't know, like you never know if you're doing it right. Kids are doing well and there's still kids not doing well. So, you know, you kind of believe that it's typical, like you know a typical classroom so you just kinda move on. I don't know if I ever didn't believe in what I was doing, but I definitely struggled some, you know those certain things.

N. Y. shared her experience with a factor that inhibited her self-efficacy: "Students being in a dark room with the lights off, not having to turn on their cameras. They're not actually physically being present with this."

When asked to describe a time when she felt less confident and effective during ERT, N.Y. shared:

I think all of us just tried to get through the experience and like, at first, I feel like we were very hopeful. And then, as time progressed, I think the mood shifted where it was just kind of wrapping up the school year like, how do we get to June? And then we'll worry about the next school year in September. So, during that emergency remote, we were constantly communicating.

N.T. also shared a time when he felt less confident and effective during ERT:

First couple of weeks, when you're looking at kids who are still in bed, and, you know, kind of waking one of them up and off. And I was just walking around, and you just like

this isn't going to work and like again you really start to doubt yourself that so again that initial period, just, you know, a little bit like, you know I can. I can't think of a name, but you know, he was in bed every morning, or she's off asleep, and I'm like, hi, any chance, just at least look like you're half interested! But yeah, I suppose that. Yes, you know, teaching your student body kind of who are still asleep, and then, you know, don't want to be on just kind of dampens your confidence that you're going to be able to do this. I think that I think that was the most probably discouraging thing that kids would be in bed, or kids would be, the camera would be on, but there was, there's no face there, and you knew they just switching on just to say they were there, and that, that's how you know they just catch you. And you just think they're just not really that interested. And then you think, and again, it's you thinking, well, what am I doing? I might just fight a losing battle here. And it got odds, you know, that's that, that was hard. So that, that really initial period of time, those days made it difficult, particularly when class was at 7:45am.

When asked about her self-efficacy during that time, E. N. shared:

I think that I did a good job communicating with my students and effectively teaching what I needed to teach. I was hampered by significant technological restrictions, really, really difficult ones. That made my particular job difficult. Because I am a technology teacher, it is really, really challenging. The end of the 2020 school year was by far the worst! The following school year, the 2020 - 2021 school year, which was hybrid, so just as much online was much more effective. But I would say that, considering that I managed to finish the yearbook, it was an effective school year.

When asked to describe a time when she felt confident and effective in her teaching during ERT, E. N. shared:

So, the interesting thing about that is, I didn't feel very confident or comfortable with most of the classes that I had to teach. Then most of the classes I had to teach were based on technology that we did not have access to on the Chromebooks. So, it made teaching very, very difficult, because I was trying to teach students things that they no longer had access to, which was really, really impossible. We used a lot of free online software that was in some way supposed to sort of simulate what I taught in the classroom, but there was absolutely no comparison between the two, like absolutely none! So, I was trying to teach design concepts and trying to teach design skills, using software that was as like, you know, as low rent as possible. So, it really made it very difficult. The one place I actually felt really comfortable and confident was working with my media literacy class. It was the very first time I taught that class. It was a brand-new course. I only had 7 students, 11 students, some really small classes. And to begin this school year, like, during that second semester, I wasn't really sure how it was going to go, but because that class wasn't as reliant on actual technology, I was able to effectively work with the students just by having discussions. And you know, one of the things that we were using was Twitter. Twitter was still functional, so, there were ways that, that class because it wasn't as reliant on technology was actually my most effective class, like, I would have a conversation with my students and feel like I was actually making a difference and teaching as opposed to. Oh, God! Now that software is not working again, let's find another workaround.

When asked what factors that inhibited his self-efficacy, F. O. shared:

I think that they're more personal things, you know it was, you know the space that you're seeing on this video now it didn't exist. I didn't have a reliable space to teach. Every day I was teaching from a desk in my bedroom, while my, you know, 3-year-old and 1-year-old were banging on the door, and while my wife was trying to respect the fact that oh, my gosh! This has to happen, and then also the world's going on so that, that challenges your ability to compartmentalize, you know. And then, personally, I had a situation like I lost my mom in the middle of May. So, it was just a totally you know, life rocking time in addition to what the whole world was going through. So, when that happens, even people that are the most self-sustaining and focused and motivated by it. It's difficult to compartmentalize those things. So, I think that was probably the best answer I can give to that question.

When asked to describe a time when she felt less confident and effective during ERT, E.

F. shared:

Once we had started, realizing that this was not going to be just 2 weeks, all of my preparation and planning that I was able to do started to spiral because there wasn't an end goal. It was a day by day, alright, we may be in the classroom, we may be teaching from home. And because many of my resources were still in my classroom, and the fact that some students didn't have access to the Internet, or they had slow Internet, they were taking care of their siblings. It became very challenging, trying to make sure that students were on top of their work, that they were actually learning as well as trying to find time to plan with my counterpart of how were we going to approach specific units and deciding what information we may have to cut out because of the time constraints, and

the fact that we were working in our own rooms, and we couldn't really gauge and tell how our students were learning behind their screens.

When asked to describe a time when she felt less confident and effective during ERT, E. S. shared:

So, I would definitely say, not having the daily contact with my students, I would check in with my freshmen but I wouldn't try to teach them like we were giving them more time to read and do classwork. Like during the class block, and that felt much less effective than actually, I think, engaging in contact time with my juniors, so I kind of felt like I wasn't, you know, I wasn't teaching them, which there's a little bit of a difference in terms of teaching style between the freshmen and the juniors. I think, and I was sort of co-teaching with other people, but that diminished contact time like actually facetimeing, felt less effective. And I felt like I had less of an impact. There was a lot of cheating (amongst the students), so like if they were reading and then responding to a question, you know, I was finding the kids cheating. Cheating was an issue, and then just the total lack of responsiveness that I could break through with like graded discussions. But then that became a real treat after a while, too. So, it was kind of like a constant. It very much in some ways felt like being a first-year teacher again, where you're like, okay, we're gonna do this thing. And you, in your head, you think it's gonna work like it works in class to some degree. But then you try to do it, and you're like, oh, no, this isn't going to work at all like it works in the cloud, like even showing videos like, when I showed the movie like having to stop it and interrupt it, there was lag. And then the kids wouldn't hear what I was saying when I interrupted the movie so like really routine things. Just feeling a little bit awkward about that. But I would say the biggest things were the student

responsiveness, and then like making sure that once you found something that worked, that you didn't do it so much that it then didn't work.

When asked what factors she believed inhibited her self-efficacy during that time E. S. shared:

So, my daughter was also on home instruction, and has dyslexia, and at the time was like very young, so you know, co-parent like parenting and managing everything that was going on in my house was definitely a huge factor. I ended up getting COVID, which was like I taught through having COVID for almost 3 weeks. So that was a factor. But in terms of I also had, I'm just trying to think here. I think not having more time to like, collaborate, and communicate with colleagues about what was working for them, like we were all just in survival mode. Kind of so, I did check in and talk to colleagues, but it wasn't and sometimes it was super helpful, but for the most part, I think just not really being a little more analog as a teacher in the general classroom like I used to, you know, prior to the pandemic. I definitely used Google Classroom regularly, so that was hugely helpful, but I just don't think that I lean on technology because of the risk of like plagiarism and stuff like that as much as some teachers might. So just knowing creatively how to use technology, I think, was probably that because it's all like it's basically all variations of like, write on a piece of paper, right? So, like, if you're in the classroom with kids, that's one of my modes, right, like sometimes I'm not gonna make them do everything on the computer. If it's easier for me to kind of check it off and grade it, especially just to like jump through the technology hoop like, I try to be very just efficient. So, I think that was that, you know. I wish that we had like kind of tech like try this. Not that I mean, that would have totally turned into like literally every teacher and

the district trying one thing at a time. So, I get why we didn't, but I ended up doing a lot of that on my own, and just feeling like a failure about it. So, you know, I'm like, I don't know, I should be like more social media hip. But I mentioned that I'm 46, so, I'm really old, yeah, I think that's, I think that's it. Just not having, like, more knowledge of tech tools to deploy.

When asked to describe a time when he felt less confident and effective during ERT, H. Z. shared:

Yes, I would definitely say it was in the (virtual) classrooms that I was a co-teacher in. So, the in-class support role especially with Zoom, you know, trying not to compete for screen time, and especially if there was, because there was, you know, there's a mode in Zoom where you know, this screen could potentially keep shifting back and forth, from whoever's talking. So, you know, I definitely did not want the students to kind of, you know, start to, you know, think like who's in charge or who's you know? Who's giving us the information? So that was a little tricky to navigate especially since we obviously, we never done it before. But also, just being home with, I would say my daughter was an eighteenth month old, I think, at the time around there, and just, you know, kind of switching back and forth between teacher and dad since my wife was also looking to work, and it was just trying to find that balance.

When S. N. was asked to share his perceptions of self-efficacy in the context of ERT, he stated:

I feel that during emergency remote teaching over the course of the pandemic, the perception of my own efficacy diminished, and as time passed in the pandemic, and in

the time following the pandemic that perception was slow to recover. Especially considering ongoing learning challenges that are resulting from the pandemic and the learning circumstances of my students then and after.

S. N. also shared the strategies he used to maintain or enhance his self-efficacy during
ERT:

I think the refrain that I mentioned earlier on, we can make it work with something that I used as a mantra to help me cope right. The strong belief that I had in my ability to do my job and to help my students, and to make them feel like they were safe and give them a good experience with my content ultimately was not enough, but that was something that sustained me throughout this. Recalling the situations that I had been in professionally that were challenging and the ways that I navigated that successfully helped me feel like, no, I can do this! I believe in myself! I can be successful here. I remember in my second year I had blah blah blah student, and that was terrible, and I got through that so I can get through this, right? It's the raw cheerleader mentality, it's sort of the narrative that we spin to help empower us when you know we can't control the circumstances that we're in professionally, and I can sense, or I recall sensing over the timeframe of emergency, remote learning that the success of my hyping myself up through recalling my professional successes, was insufficient in the face of the entropy of the challenges in this space.

S. N. opened up about describing a time when he felt less confident and effective during
ERT:

I think a strong memory that challenged my confidence and the belief that I could do my job well was when I began to notice my students not attending class any longer. And attending class for me is more than signing on to the Zoom, right? Because, my expectations for class attendance were that you, you would attend class initially, by the Zoom that I provided, and then I noticed that students were not attending the Zooms. Or students were attending the Zooms, but they had their camera off, or students were attending the Zooms had their cameras off, had their audio off, and I would speak to them, and there would be no response. You know, there were students who would performatively attend, or you know they would sign on. They would just not be there, or they would have their camera on and focused on the ceiling fan right or like above their heads or they would be in a blanket like there were a lot of cues that I was getting from my students that showed me that they were not engaged. You know, and initially my answer was, of course, I need to design something more engaging, right? I need to come up with something that would not only encourage them to participate, but reward them for that participation. And every modification that I would make to make the course work more engaging, or make it more accessible, right? Or give them choice in terms of the ways that they engage with the content. They were not successful. And so, when I saw my students begin to disengage, and the steps that I take, I took to try to get them to re-engage, not work, I began to feel like I was powerless in my ability to reach them and to help them learn and that getting back to the question of me, and question my self-efficacy.

S. N. also candidly shared the role that collaboration with his colleagues played in his self-efficacy during ERT:

I don't feel that any ability that any success would have been possible without collaboration. I think that comparing notes, so to speak, among my colleagues was essential. Asking the question, what are you doing? How are you doing that, did that work, is just a fundamental piece of good instruction, because that's gathering information about what strategies are working for what kinds of students and then potentially applying those strategies myself, right, or giving other people ideas. I think that a really strong learning community involves that type of frequent discussion. And without that I don't think I would have been able to navigate pandemic learning, emergency, remote learning as successfully as I did. I am fortunate that in the courses that I was teaching at the time I was working with a co-teacher whom I admired and had frequent conversations with and so she was able to give me suggestions in terms of my content design, right? And then I was able to give her feedback about student performance, and we were able to do it together. I don't think there's a way to do pandemic learning to do emergency remote learning that isn't together. I think that we have to be a community in order to figure out what works. But if we were to meet this situation again and have emergency remote learning, I think that a more formal organization would be useful in terms of teachers who are leading instruction, teachers who are on Zooms, teachers who are coming up with instruction or materials. If we were to do it again and again, please. No! But if we were to do it again, I think creating more concrete professional learning groups within the school, might be useful just to take the burden off of the individual teacher, for all of the responsibilities that they need to manage which could be managed much more successfully as a unit.

A. A. shared her experience with her perceptions of self-efficacy:

A lot of unknowns being able to, I would say, just handle like the remote world type of thing, and having no face-to-face, to like having to face students, but actually like, look at them through the computer. So, like I, I would say, it was like more, I was nervous, more of the unknown factor of it.

When sharing about how her relationships with students and their families impacted her self-efficacy, A. A. shared:

I would say, relationship-wise, I didn't really get to know the student as well as I would have in the classroom or the physical education, in the gym setting, so I would say their relationships kind of took a toll a little bit because I really couldn't. I couldn't really get to know that person. because, you know, they were online. So, a lot of times, people act differently when they're, you know, behind the screen rather than in-person, so I would say it, as far as self-efficacy, I'm a person that likes to get to know a person, so I would say it took a toll a little bit, just because I didn't feel comfortable going up to that person. One, because if they had a mask on like, I didn't really know who that person was so I couldn't really get to know them, so I would say, it took a little bit of a toll, because it was like that unknown of well. How am I going to like to relate to this person? What can I do to you know, get to know this person a little bit better?

When E. K. was asked how she defined success in the context of ERT, and how does it relate to her sense of self-efficacy, she shared:

I would say the success is just being able to reach out and contact all those students, the students that logged on every day the students that did not log on every day. I mean, it got to the point where I would like call the students if they weren't submitting something,

because I didn't know what was going on in their own household, but I would reach out to them personally whether it was their direct cell phone or their parent cell phone. I think that would probably be the most successful thing during emergency remote learning is just being able to reach the kid, who was on every day and was eager to do it. And the kid that just didn't want to do anything, and I think that also really says what self-efficacy is; I'm not just gonna grade the kids on those who are going to show up because some of the kids that did not want to show up. Who knows what they were going through? They could have had that home life where they stopped dealing with their own issues. They could have had sicknesses or loved ones that were catching the COVID-19, so I think just reaching every single student that I taught was a big success for me.

In her opinion, E. K. also shared how the school and district policies and supports impacted her self-efficacy during ERT:

I think everybody was given like, alright, don't fail anybody, don't! And that was a struggle, because me, like I want to hold all my kids accountable. If they deserve a zero, they should get a zero, they shouldn't just pass with the 50%, just because we can't give them anything lower. So that was very difficult. I think it is still now like difficult to hold kids accountable. I mean, three years out of COVID-19, we should start the school year in September, pulling everybody accountable for everything, because, you know, it's not going to get easier for us teachers if we don't do that. So, I think the grading policies took a back seat, and it was just more so of getting the kids through every subject that they were doing so that they didn't fall behind in high school.

N. R. described a time when she felt confident and effective in her teaching during the shift to ERT:

I think that the best impression I was able to get from how well they were doing when we were teaching remotely wasn't through their assessments. And it really wasn't even through their labs again, because with the assessments I didn't know whether or not they were using their notes. So, when I was creating their tests like something, you know, for the majority of them did really well. So, where I was really able to see how well they were picking up the material was during our discussions, we had a tremendous amount of breakout room sessions and class discussions, and like, thank goodness, that year I had really, really good kids that wanted to participate, whether we were in-person or we were remote, and because we went remote at the end of the school year, we already had established a culture of the class and relationships with each other. So, they were willing to, they were really willing to participate and participate in the breakout rooms. When you know, with the breakout rooms you can go in and out of them as you please, when I would go into their breakout rooms, they really were discussing the concept at hand. So, I think that's how I was able to get an idea of how well they were picking up the concepts.

N. R. also shared the factors she believed inhibited her self-efficacy during that time:

It definitely would have been not being able to do the labs, because the kind of labs that I run in class are called argument driven labs, where they really do take on the job of what a scientist would actually do. They're not given a set of data; they're not given a procedure, all they have is the background information for what concept we're going to do the lab on. They get a guiding question that ultimately is going to be answered through

the scientific process. But then they go ahead and create the hypothesis, they build the procedure. They analyze the data; they figure out what type of table would make the most sense to put their data in. They figure out which type of graph makes the most sense to use and then they peer review each other, which is probably the most important piece, because what they're able to do is they're picking up any biases or errors that another group either didn't see or they don't want to see, because they want to prove their hypothesis. So, we didn't get to really do any of that during COVID.

N. H. described a time when he felt confident and effective in his teaching during the shift to ERT:

Yes, there were definitely times, I don't know if I can tell you exact specifics, but when students were expected to be doing something on their own, in the first place. Then it was okay, I would deliver, you know. Okay, you know, yesterday we talked about this, here's what I'm going to ask you to do, and either they had to work in groups or on their own. You know that sort of thing, I was teaching US1, which is early American and usually the end of the year is somewhere around the Civil War, the 1870s, or something, and so that many students had to. But well, I'd always done some sort of newspaper reporting project on the Civil War as if they were, you know, covering the events as they happened. And frankly the students rose to the occasion gathering in people's backyard. It's outdoors, of course, you know, all outdoors, but creating effective video reports which they would have done anyway. And so, the assignment worked and I think they got it again, like, I don't know that they got much from me, you know, you can't just lecture online and expect anyone to pay attention for too long. But I think they did get something out of it in their own research. In their ability to work together even from afar, because not everyone,

you know, some students, you know, they would just share a video file of sorts and just add to it and others gathered in people's backyards, which was, you know, actually probably really nice for them. So, I think that worked and that wasn't by special design. I think that was just a project that was designed for them to be working independently anyway. And so, they were independent and it worked out okay, like I couldn't say that. You know this past year's classes were that much different from the COVID-19 year.

N. H. shared the factors he believed contributed to his self-efficacy during that time:

Oh, boy, well, some of its mental, obviously, you know, like there were definitely times where I you know, this isn't working. You know, and your own, you get in your own head, and I mean that was, you know, and the feedback you get is now just a bunch of little computer screens right? And you know, seeing, you know, like through this, you know the ceiling or the ceiling fan, or you know, just blacked out with the name, and you call on someone, and they don't respond right away. Is it just because they're fumbling for the keys, or are they, are they truly not there? There definitely was a greater sense of self-doubt. And so, I think, my own, I definitely doubted my ability to do a job that I'd done for so long at that point. Because, you know, we have the technology to reach out to everyone, but that doesn't mean that, that's how you know this classroom instruction is supposed to be. I think one of the reasons I'm an effective teacher just in general is because I am a presence in the classroom. Even when I'm not the, you know, the target of the classroom, even when they're working on different things. I think there's something from both my perspective and a student perspective about being present in the same room. So again, I wouldn't say there was anything official that came down that made me doubt myself, but I definitely doubted, I was relieved, the job was over, and everyone

experienced that sense of relief in June. But again, I forget the timeline, but they said, you know what, no finals are the last, I was like, oh, thank goodness, because it felt like pushing a rock up a hill, and I used to be good at pushing the rock up the hill, but I didn't feel good at it anymore.

N. H. also shared the factors he believed inhibited his self-efficacy during that time:

Well, the reliance on technology, because the technology worked, but the delivery is not intended, as I kind of hinted before. Zoom is really great, or, you know, Facetime, or any of these, you know, video communications, they're really great to keep in touch with people. They're really great for one off meetings. It's not made for daily, a daily meeting, whether it's a half hour or an hour, or whatever it might be, because I think, also societally, were to, you know, like, oh, I've got my phone like you could be talking and lecturing. But I've got my phone right here, and I'm gonna you know, just glance, oh, you know, kinda our reliance on technology, you know, and social media and things like that. Just societally, I think those things got worse or more intent or more acute, during the pandemic of the emergency part portion of the pandemic and so, if I'm addicted to my phone already, as many people are, it's even worse during the pandemic. So how could you know, a classroom where you know, even the most well-meaning of, you know, advanced placement and honors students, the best students you know. How can they possibly fight against, you know, these natural impulses? So, I think, you know, the technology works too good in that case. So it wasn't, you know, like, oh, Zoom didn't work, like I didn't have Wi-Fi problems or anything like that. I'm sure some students did, but I really do think it was the bigger fight that, you know we, don't we? We continue to this day of, you know, addiction to our phones and social media, or everything all of a

sudden, allowing every student to have, you know, a classroom in their own room. Which wasn't everyone, of course, but you know, unsupervised, the temptation to just go tune right out is just too much, even again, even of the most well-meaning of students, in my opinion.

E. G. shared factors that contributed to her self-efficacy during that time:

Well, I guess one of the big ones with resources, you know, the resources that were available to me, the online resources, even that the technology where you know you do this, you know a makeshift whiteboard setup where I get, you know, I had a ring stand. I had a camera on a ring stand, and I had two screens going where I was doing problems on my desk with the camera, with the camera up here, so that I could actually demonstrate because a lot of you know, a lot of my course, is problem-solving. So, what I would do is do the problems on paper, but I would do them in the camera for the kids, and I had to come up with a system to do that. So, creating the resources and feeling confident with those resources was very helpful, you know, like, I said, online materials that are available to us as physics teachers right now are just incredible! But, some of the methods recognizing that so much of the work is really the students, students are the ones who are learning this, my teaching style has changed in the sense that you know so much more of the ownership is on the students. I don't, I don't stand up and lecture for a 50-minute period. I present, and then they do, and I present, and they do. And then we discuss and you know, so it's really them keeping up with what I'm giving, what I'm putting out for them to learn and that really has come more from COVID than it was before.

E. G. also described a time when she felt less confident and effective during ERT:

In the beginning it's just like getting used to it, I think, the I don't feel, I did not feel that I was always confident in the breakout groups, because I wasn't always sure that the students were doing what I wanted them to do the way I wanted them to do it. So, I feel, probably that was a weakness in how I was as a person, how I was working with the students, it's just in the sense that I don't need it. Maybe this technology is there, and I didn't know it, I don't know if you're able to, actually, I know you can go in and out of breakout groups, but I don't know if you can have all the breakout groups on your screen and be watching what they're doing at same time. That would have been cool if I could do that, and just kind of be an overseer of each group, and then I would know which group to pop in on. But I think that was probably the one aspect I lacked confidence in. And I then you know, the testing really had to, yeah, I had to relinquish the security of tests, because it really wasn't the same type of a test that we would give in the classroom with you know, with nothing but your mind. And you know the questions, so you know, that's the real world, because the access, you know, you say, oh, lock the screen. Okay, so what about this thing? This thing sitting right next to them, you know how many, how many screens do they have up? Some of them had multiple screens up at the same time. So, you know the security of the assessment, if that was the kind of assessment that you were choosing to do. Now, I think any of us just said, you know that kind of assessment is just not going to be effective, so, we'll figure out a different type of assessment.

E. G. also shared the factors that inhibited her self-efficacy during that time:

Probably the newness of it all, the newness, I think I pride myself in being pretty tech savvy? So that was, I feel like that was okay for me. I made the tech work but the fact that it was stuff that I just hadn't been familiar with, and you know, I didn't like I'm hard

on myself, so I didn't like when I had little you know, when I had glitches, or you know things it because then, you know, when you're dealing with 15-year-olds and you make a mistake online, they're like, oh, man, she's old, you know. She doesn't know what she's doing, they're like (teacher name), you need help with the tech. No, I don't need help with the tech, so, I know it's probably just it. Was really the newness of it all, which actually, you know, yes, it affected my self-efficacy, but also, I liked the challenge, so you know it had the, it had two sides to it.

When asked to describe a time when he felt less confident and effective during ERT, R.

O. shared:

I still go back to assessments, I don't know if we did that right or I don't know the right way to do that you know they the kids say cheating was rampant during that time and I don't have a pulse on that, and I think that was the lesson there, was the less effective I could have been, in terms of everything what I think in terms of effectiveness, like when I wanted more time to like go around and look at kids' individual work. Absolutely, I didn't feel effective there. I just had a trust that they were getting what I was doing, and then you know that at that moment they are getting in their notebook correctly and practicing correctly but the assessment piece I'm not confident at all in, I don't know what side to believe you know when I was watching them, all of their faces are on Zoom. It didn't appear to be any of them, but you don't know that would be my least confident with ERT.

H. Z. shared what factors he believed inhibited his self-efficacy during that time:

I guess just solely focusing on educating, I think, just because like everyone else, no one knows you, and you didn't really know what was going on and just trying to like figure it out for your own safety and, you know, trying to find out the severity of the you know of the virus, and but also then trying to you know stay calm for the students and let them, you know, kind of putting them at ease. You know it was definitely tough for that.

N. H. shared his perceptions of self-efficacy in the context of ERT:

Well, you know, first off, we were all trapped right, you know. What were you gonna do? There was, you know, very little guidance, from anyone, you know. And the plan was we were gonna shut down, I forget the exact details, but we shut down for a couple of days. If I remember correctly, it was something like, you know we left that Friday, we had the weekend, and then we weren't going to meet with students again until Thursday online. I could be misremembering some of that detail, but it was something like that. And then those days well, first off, not only were we watching the pandemic play out, but secondly, we're saying, okay, how are we going to do this? The sole positive I would say at least at that point was that we were already on a Google Classroom platform. So, it was easy enough to just say, okay, my students are going to, you know, this is the delivery method, right? No matter what I do, it's got to work with Google, and you know, that's you know, they're going to be looking at their screens. And I'm going to be on my screen, but there was nothing new to establish in terms of communication procedures like that part. That was the easy part, getting used to Zoom, you know, I remember having a student, you know, when, when rumor, you know, that week before there were rumors everywhere, and I remember having a student, and I don't know why we did this. We were done with a few extra minutes, and I said, let's just get on a Zoom and go down the hall and see if the

Wi-Fi works, and you know just silliness. It didn't, it didn't matter, because we were home, you know. Like, who cares if the school Wi-Fi works, but you know there was this perception of having to be able to, you know, make sure it all was all going to work technologically. So, as you know, I felt like in terms of self-efficacy, I wasn't very good at, in my opinion, at delivery, solely online. Because I'd never done it before, you know, you hear about these online schools, and I'm sure those people, you know, delivered a certain way, although, frankly, having taken an online class or two, I find the experience miserable. If you know, like I didn't fear for like oh, I hope I do this right in terms of like bosses or administration. I felt like they were like, do the best you can. But in terms of delivery to my students, you know, I tried. I tried to, you know, but you know we're in a I think teaching whether you know shouldn't be this, but I think we're still, or at least I am still very much a you know, I'm the center of the classroom, and I deliver some material. And then the students do something with that material and that continues to this day. But if the delivery of the material falters, and in this case, you know, over Zoom or online, then how could students possibly effectively do anything with the topic? You know it, does that make sense? I don't know, I'm not sure. So, you know I felt well supported in that, whatever I was going to do was going to be okay. But I don't know, you know I certainly don't believe that my students for that last, you know, what was it, March till June, really got effective educational instruction from me. I again, not from lack of trying, but just from, you know, not really knowing a better way. Yeah, so, I think that's, that's it.

Chapter V will present a concise statistical summary of the findings, and explain implications for future educational practices. This section will delve into the conclusions and

recommendations derived from the research study, encapsulating key themes and their significant connections to Albert Bandura's Self-Efficacy Theory. The chapter will not only provide a comprehensive understanding of the study's implications but also offer practical applications through recommendations for practice. Chapter V will address potential policy changes with recommendations for policy, and propose avenues for future studies, contributing to the ongoing advancement in the field.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purpose for this qualitative study was to examine high school teachers' perceptions of the factors that foster and/or inhibit self-efficacy during emergency remote teaching (ERT) as a result of the COVID-19 pandemic. This research study specifically explores teacher self-efficacy when faced with the immediate transition from an in-person classroom instructional model to a fully remote instructional model with limited time to prepare. Through semi-structured interviews, I collected qualitative data that K - 12 administrators can use to plan, prepare, and implement best practices when faced with future emergency school shutdowns such as those that resulted due to the COVID-19 pandemic. I structured the study around the following research questions:

1. What are teacher perceptions of self-efficacy during COVID-19 emergency remote teaching?
2. What are high school teachers' perceptions of the factors that foster self-efficacy during emergency remote teaching?
3. What are high school teachers' perceptions of factors that inhibit self-efficacy during emergency remote teaching?

This research study produced several results that align closely with the concepts discovered within the literature and *Everyday High School*. The results were categorized into the following overarching themes: (a) mastery experiences, (b) vicarious experiences, (c) social persuasion, and (d) physiological arousal. The conceptual framework used to examine the research study results was based on theory, research findings, and the literature.

CONCLUSIONS

Upon conclusion of the research study, it was clear to the researcher that an intricate tapestry emerged, woven from the individual perceptions of high school teachers navigating the numerous challenges and opportunities presented during the spring of 2020 as a result of the COVID-19 pandemic in the context of ERT. Rooted deeply in the theoretical framework of Albert Bandura and his self-efficacy beliefs, the research study examined the pathways towards achieving teacher self-efficacy and encapsulating the transformative influence of mastery experiences, vicarious experiences, social persuasion, and physiological arousal.

The journey through these theoretical constructs unraveled a multifaceted understanding of teacher self-efficacy, challenging a conventional unidimensional perspective. Far beyond a singular dimension, the research study unveiled a wide spectrum of teacher self-efficacy types, each a vital thread in the intricate fabric of effective teaching during unprecedented times. The assertion can be made that through the research study that teacher self-efficacy is present in many different forms that can be both promoted and supported by school administration. Self-efficacy in the context of this study encompasses adaptability and flexibility, a student-centered approach, transparent communication, resourcefulness and connection, teacher-student relationships, proficiency in alternative assessment methods, adeptness in managing challenges and uncertainty, and technological proficiency.

In examining these varied facets of teacher self-efficacy, this research reframes the discourse surrounding teacher self-efficacy as not only perceivable, but also adaptable and amenable to strategic cultivation and planning. Effective pedagogical practice requires a holistic understanding of teacher self-efficacy, one that transcends isolated interventions and recognizes

the collaborative relationship among diverse dimensions. As the educational landscapes continually evolve as a result of unprecedented challenges or advances in technology, acknowledging and cultivating the diverse forms of teacher self-efficacy becomes paramount for sustaining adaptive, resilient, and effective teaching practices.

By gathering a deep understanding of the perceptions and experiences of teaching during ERT, it propels academia toward a rich comprehension of the multifaceted nature of teacher self-efficacy. This research provides a comprehensive framework on how the numerous forms of teacher self-efficacy can be promoted, supported, and nurtured through various avenues.

ADAPTABILITY AND FLEXIBILITY

The exploration of adaptability and flexibility emerged as a central theme, reflecting the teachers' ability to navigate the unforeseen circumstances and challenges due to the COVID-19 pandemic/ school shutdowns effectively, particularly in the dynamic context of ERT. Albert Bandura's influential theory of self-efficacy provides a theoretical framework that aligns with the findings, emphasizing the significance of teachers' beliefs in their own capacity to adapt successfully to new and challenging circumstances as those experienced during spring 2020. The identified factors underscore the interconnectedness of Bandura's four pathways to self-efficacy (mastery experiences, vicarious experiences, social persuasion, and physiological arousal). Albert Bandura's Theory of Self-Efficacy (1997), through mastery experiences aligns with the idea that teachers with high self-efficacy in adaptability can navigate unforeseen challenges effectively. Teachers' shared experiences in adapting to the uncharted territory of remote teaching emphasizing the universality of the need for adaptability skills. Teachers need to be adaptable and flexible, particularly in ERT situations for teaching success to occur.

STUDENT-CENTERED APPROACH

Maintaining a student-centered teaching approach is essential for fostering student engagement and cultivating meaningful connections. Bandura's theory underscores the significance of vicarious experiences, and in this context, the adoption of a student-centered approach aligns with the cultivation of positive teacher-student relationships, thereby impacting teachers' confidence and self-efficacy. Throughout the ERT period, the recurring theme of a student-centered approach consistently emerged as a crucial aspect of teachers' experiences, harmonizing with Bandura's emphasis on vicarious experiences. The acknowledgment of the importance of customizing teaching methods to meet individual student needs, promoting engagement, and establishing meaningful connections underscores the impact of vicarious experiences on teacher self-efficacy.

COMMUNICATION AND TRANSPARENCY

Clear and transparent communication is vital for fostering teacher self-efficacy during ERT. Bandura's concept of social persuasion is reflected here, highlighting the impact of positive communication on teachers' beliefs in their capabilities. The established link between a student-centered approach and teachers' perceptions of self-efficacy further underscores the pivotal role of strong teacher-student communication in enhancing educator's confidence during the challenges of ERT.

RESOURCEFULNESS AND CONNECTION

Teachers' self-efficacy during ERT was significantly bolstered by their resourcefulness and meaningful connections with colleagues. Social persuasion became evident as educators

leveraged the experiences of their peers to enrich their own self-efficacy. The collaboration and supportive networks established among teachers not only align with Bandura's theory of self-efficacy but also offer a theoretical framework for interpreting these findings. The positive influence of resourcefulness and collegial connections on teacher self-efficacy underscores the pivotal role of social persuasion. Throughout the ERT period, teachers consistently drew on the experiences of their peers to strengthen their own self-efficacy beliefs. The overarching themes of collaboration and supportive networks resonate with Albert Bandura's Theory of Self-Efficacy (1997), underscoring the significance of cultivating a culture of collaboration and resource sharing among educators.

TEACHER-STUDENT RELATIONSHIPS

Cultivating robust teacher-student relationships significantly enhances teacher self-efficacy. This focus on the dynamics of teacher-student connections aligns with Bandura's theory, which underscores the pivotal role of personal experiences in shaping one's self-efficacy beliefs. Albert Bandura's groundbreaking theory of self-efficacy serves as a guiding theoretical framework for interpreting these insights. The emphasis on fostering strong teacher-student relationships not only echoes Albert Bandura's Theory of Self-Efficacy (1997), but also highlights the profound impact of personal experiences on the development of self-efficacy beliefs. The multifaceted role of educators, extending beyond academic discussions, emerges as a pivotal factor influencing self-efficacy during ERT.

ALTERNATIVE ASSESSMENT METHODS

Delving into a variety of assessment methods is essential for sustaining teacher effectiveness in the context of ERT. This exploration mirrors mastery experiences, as educators

successfully adapt their assessment strategies it can bolster their own sense of self-efficacy. Albert Bandura's Theory of Self-Efficacy (1997), provides a valuable perspective for interpreting these observations, specifically, the emphasis on alternative assessment methods. This closely aligns with the concept of mastery experiences, where teachers, through adaptive strategies, can enhance their self-efficacy. The necessity for flexible and creative assessment approaches, prioritizing student engagement over punitive measures, becomes apparent in the shared narratives.

CHALLENGES AND UNCERTAINTY MANAGEMENT

Proactively addressing challenges and navigating uncertainties is essential for nurturing both teacher well-being and self-efficacy. This proactive approach aligns with Albert Bandura's Theory of Self-Efficacy (1997), which underscores the transformative impact of mastery experiences on shaping self-efficacy beliefs. Albert Bandura's theory, rooted in the concept of mastery experiences, strongly resonates with teachers' narratives, emphasizing the profound influence of overcoming obstacles on the development of self-efficacy beliefs.

The identified multifaceted challenges, ranging from technological hurdles to personal environmental obstacles, underscore the need for a comprehensive and targeted approach to support educators during ERT. The convergence of personal and professional challenges, exemplified by educators balancing household responsibilities, navigating the impact of COVID-19, and grappling with creative technology use, highlights a significant challenge experienced during the spring of 2020. This highlights the need for a holistic approach in addressing these diverse challenges.

The shared experiences of teachers fulfilling co-teaching roles and the discernible decline in self-efficacy expressed through their narratives highlight the unique challenges encountered in virtual classrooms. The evolving nature of the pandemic, as depicted in these narratives, stresses the importance of fostering resilience and self-efficacy among educators to effectively navigate the ongoing challenges.

TECHNOLOGICAL PROFICIENCY

Improving technological proficiency positively impacts teacher confidence, effectiveness, and self-efficacy, aligning with Albert Bandura's Theory of Self-Efficacy (1997), specifically the concept of mastery experiences. Successfully navigating technological challenges enhances teacher self-efficacy. The multifaceted nature of technological proficiency is critical during ERT, influencing educators' confidence and effectiveness.

Diminished contact time with students, challenges in maintaining responsibilities, and concerns about academic dishonesty highlight the need for targeted teacher training. Acknowledging limitations in technological proficiency, highlighted by educators feeling like failures in deploying tech tools, emphasizes the need for ongoing comprehensive professional development. Teachers' experiences struggling with technological challenges during ERT further express the importance of ongoing professional development to enhance digital literacy and teaching effectiveness in virtual environments. These efforts closely align with Bandura's theory, contributing to a resilient and confident teaching community during periods of remote instruction.

RECOMMENDATIONS FOR PRACTICE

PRIORITIZE PROFESSIONAL DEVELOPMENT FOCUSING ON ADAPTABILITY

Recognizing the importance of adaptability and flexibility in the educational landscape, it is imperative for educational institutions to prioritize professional development programs geared towards enhancing teachers' adaptability skills. To achieve this, building principals should proactively allocate resources and time for focused professional development workshops, specifically designed to equip educators with practical strategies for navigating unforeseen circumstances. A notable example of such circumstances is the unprecedented school shutdowns experienced during the spring of 2020.

These targeted professional development initiatives could encompass various elements, including scenario-based training, collaborative problem-solving sessions, and exposure to diverse teaching methods, particularly those relevant to handling unexpected emergencies such as the challenges posed by the COVID-19 pandemic. Establishing a plan to standardize training programs, drawing inspiration from showcased examples of adaptability across different facets of education, can contribute significantly to the development of a broader community of practice. This approach aims to foster preparedness among educators for future disruptions.

A comprehensive perspective on adaptability necessitates a holistic approach to teacher training, extending beyond instructional strategies to encompass the cultivation of self-management skills. The interconnected nature of confidence and adaptability, as revealed in teacher narratives, underscores the importance of integrating strategies to boost teachers' confidence within professional development programs.

INTEGRATE STUDENT-CENTERED STRATEGIES IN TEACHER TRAINING

Building leaders must recognize the importance of a student-centered approach, educational institutions should place a high priority on integrating student-focused strategies into teacher training programs. Principals can collaborate with curriculum coordinators to infuse student-centered approaches into teacher training modules. This collaborative effort may involve modeling effective strategies, offering resources for crafting engaging activities, and facilitating peer-to-peer sharing sessions dedicated to successful student-centered practices.

Educational leaders must prioritize the integration of student-focused strategies into comprehensive teacher training programs, ensuring that educators are thoroughly equipped to effectively engage students across diverse learning environments. Drawing inspiration from showcased examples of varied methods employed to maintain student engagement during ERT, these examples form a robust foundation for developing a repertoire of student-centered activities and strategies. They serve as invaluable resources for educators aiming to elevate student engagement in virtual learning settings.

A holistic approach to the student-centered model, exemplified by the emphasis on regular check-ins and acknowledging student challenges, should be integrated into teacher professional development. This integration highlights the dual role of educators as both academic guides and mentors, fostering a more comprehensive understanding of student needs that extends beyond academic achievements. The valuable insights uncovered within the research can guide the development of targeted interventions and policies aimed at cultivating a student-centered approach. Ultimately, these efforts contribute to enhancing teacher self-efficacy in the ERT contexts.

ENHANCE COMMUNICATION SKILLS THROUGH TEACHER TRAINING

Effective and transparent communication has emerged as a pivotal element in nurturing teacher self-efficacy during ERT. Principals are encouraged to invest in comprehensive communication training for teachers, encompassing adept utilization of online platforms, strategies for maintaining transparency with students and parents, and guidance on overcoming challenges in a virtual setting. To support educators, providing templates for clear communication and stressing the significance of regular updates can aid in establishing robust communication channels.

Looking ahead, schools should prioritize investment in communication training programs, equipping teachers with effective strategies while emphasizing transparency in their interactions with students, parents, colleagues, and administrators. The highlighted instances of consistent communication, open dialogues, and visual engagement stand as exemplars of effective communication strategies, offering guidance to educators in constructing transparent communication channels that contribute to a positive teaching and learning environment.

Recognizing the value of visual engagement, schools should explore approaches to encourage students to keep their cameras on, fostering a more interactive and communicative virtual classroom. The acknowledgment of the importance of dedicated time for check-ins and open discussions emphasizes the positive impact of transparent communication on students' mental health, well-being and overall success.

To put these findings into practice, schools can integrate regular check-ins into virtual learning schedules, allocating dedicated time for teachers to connect with students personally and

cultivate a supportive learning environment that extends beyond academic achievements. Promoting ongoing communication among teachers, students, and families, coupled with adaptability in teaching strategies, is imperative to address the diverse needs of students in ever-changing circumstances. This aligns with Bandura's emphasis on the dynamic nature of teacher-student relationships.

The research study provides crucial insights to guide the development of targeted interventions and policies aimed at enhancing communication and transparency. Ultimately, these efforts contribute to fostering teacher self-efficacy in ERT contexts.

FACILITATE COLLABORATION AND RESOURCE SHARING

Resourcefulness and fostering connections with colleagues significantly enhance teachers' self-efficacy. Principals are urged to place a premium on establishing platforms for continuous collaboration among teachers, encompassing both formal and informal avenues. This may involve the creation of virtual communities, the organization of regular meetings for sharing resources, and the nurturing of a collaborative culture. Principals can play a pivotal role in facilitating mentorship programs, where experienced teachers provide support to their peers in adapting to new challenges and unforeseen emergencies.

Looking towards the future, schools should actively recognize and prioritize the development of collaborative platforms, ensuring that teachers have accessible channels for resource-sharing, open discussions about challenges, and mutual support. These proactive initiatives will contribute to the formation of a supportive community that nurtures unity and resilience among teachers, particularly in the face of unforeseen circumstances, such as those

encountered during ERT. By translating these insights into action, educational institutions can champion a collaborative and resourceful environment, ultimately enhancing teachers' adaptability and self-efficacy in navigating the challenges posed by ERT.

PROMOTE ALTERNATIVE ASSESSMENT METHODS AND TEACHER TRAINING

Exploring a diverse array of assessment methods stands as a crucial element in sustaining teacher effectiveness during ERT. School principals are urged to champion and actively support the implementation of alternative assessment approaches. This entails providing targeted training on conducting impactful virtual discussions, engaging collaborative activities, and integrating creative assessment strategies. Principals can further enhance this by allocating dedicated time for teachers to exchange and discuss successful assessment practices, fostering a culture rooted in innovation and adaptability.

By putting these recommendations into action, school principals can contribute significantly to developing a resilient and adaptable teaching staff, better prepared to navigate the challenges inherent in ERT. These actions align with the research findings and offer practical steps for translating them into meaningful changes in educational practices.

Moving forward, educational institutions should proactively encourage educators to embrace diverse assessment methods tailored to remote learning contexts. This involves providing comprehensive training and resources for facilitating effective virtual discussions, engaging in collaborative activities, and adapting hands-on approaches to virtual settings, ensuring a holistic learning experience. Redefining success during ERT, prioritizing reaching every student over traditional metrics, necessitates a thorough reconsideration and refinement of

grading accountability policies in remote learning. Schools should strive to maintain academic standards while acknowledging the unique circumstances students face, fostering a sense of self-efficacy among educators.

Recognizing the challenges associated with virtual assessments, schools must invest in tools and strategies to address these unique issues. Offering training for teachers on secure online assessments, exploring alternative evaluation methods, and promoting open communication about these challenges collectively contribute to maintaining academic integrity and supporting teachers' self-efficacy. Through these recommendations, institutions can cultivate a resilient and effective teaching approach during unforeseen circumstances like ERT.

To address personal challenges, schools should acknowledge and provide support services, flexible work arrangements, and targeted professional development programs. This involves equipping teachers with the necessary skills and confidence to navigate technology effectively, ensuring a smoother transition to remote teaching.

RECOMMENDATIONS FOR POLICY

FLEXIBLE PROFESSIONAL DEVELOPMENT POLICIES

School districts should prioritize enhancing teacher adaptability and flexibility through professional development training and practices. Establishing a district policy that dedicates time and resources to ongoing teacher training in these areas, including emergency teaching strategies, can significantly benefit educators. This policy should outline specific types of training programs, workshops, and resources to ensure a comprehensive approach to skill development among teachers.

STUDENT-CENTERED TEACHING POLICIES

School districts should put an emphasis on student-centered teaching and integrate student-centered strategies into teacher training programs. By implementing a district-wide policy that mandates the integration of student-centered teaching methods in teacher training curricula. School districts must define clear expectations for incorporating these strategies, provide guidance on assessment approaches aligned with student-centered learning, and establish a monitoring system to ensure adherence.

COMMUNICATION AND TRANSPARENCY GUIDELINES POLICIES

School districts can strategically prioritize the refinement of communication skills through targeted training initiatives. Establishing a comprehensive policy that articulates precise communication and transparency standards for teachers during ERT is essential. This policy should explicitly outline expectations for regular updates to students and parents, provide guidelines for maintaining transparent communication amidst challenges, and advocate for the use of standardized communication tools. To reinforce adherence, it's crucial to incorporate consequences for non-compliance while concurrently offering robust support mechanisms to aid teachers in meeting these expectations and standards.

School districts should proactively manage expectations and delineate clear boundaries between teachers and parents in the realm of remote teaching. Implementing well-defined communication protocols, establishing designated office hours, and providing guidance on appropriate channels for communication are pivotal steps to restore a healthy balance in teacher-parent relationships. Institutions should explore innovative ways to engage parents in supporting their child's learning without compromising the professional autonomy of educators. This

multifaceted approach aims to foster effective communication, maintain professional boundaries, and enhance collaboration between teachers and parents during remote teaching scenarios.

COLLABORATION AND RESOURCE SHARING FRAMEWORK POLICIES

School districts could facilitate collaboration and resource sharing. Institute a district policy promoting a culture of collaboration among teachers. Define formal channels for resource sharing, establish virtual platforms for ongoing communication and collaboration, and encourage the development of teacher mentorship programs. Recognize and reward collaborative efforts, fostering a supportive and interconnected teaching community.

ALTERNATIVE ASSESSMENT IMPLEMENTATION GUIDELINES POLICIES

School districts can focus on promoting alternative assessment methods and training for ERT. Adopt a district policy that supports the exploration and implementation of alternative assessment methods. Specify guidelines for training programs on virtual assessments, provide resources for teachers to experiment with innovative assessment strategies, and encourage the sharing of successful practices. Include provisions for continuous evaluation and adaptation of assessment policies based on emerging best practices.

The above policy recommendation aligns with the conclusions drawn from the research findings and the practical recommendations for practice. By institutionalizing these policies at the district level, educational leaders can create a supportive environment that empowers teachers to enhance their self-efficacy, adaptability, and overall effectiveness, ultimately benefiting the entire school district and the learning community as a whole.

RECOMMENDATIONS FOR FUTURE STUDIES

IN-DEPTH ANALYSIS OF SPECIFIC CHALLENGES

Conduct follow-up studies on specific challenges identified during ERT, such as technological limitations, student disengagement, and communication issues, within the specific context of high school teachers' perceptions of the factors influencing self-efficacy. Investigate the intricate details and nuances of these challenges, recognizing their varying impacts across diverse subject areas and exploring the unique experiences of teachers in different educational contexts. Examine in-depth the interplay between these challenges and teacher self-efficacy, considering how various subject matters may pose distinct challenges. Furthermore, delve into the identification and evaluation of effective strategies for mitigating these challenges, acknowledging the multifaceted nature of teacher self-efficacy in the realm of ERT. This research could provide targeted insights into the dynamics of challenges faced by high school teachers, offering context-specific recommendations to enhance self-efficacy and instructional effectiveness during future instances of ERT due to unexpected school shutdowns.

EXPLORATION OF MENTAL HEALTH AND WELL-BEING

My second recommendation for future research would be to investigate the multifaceted impact of ERT on the mental health and well-being of high school teachers, specifically examining the intricate relationship with teacher self-efficacy. Explore how external stressors, personal challenges, and uncertainties stemming from the COVID-19 pandemic contribute to the dynamic landscape of teacher self-efficacy and resilience during ERT. Delve into the nuanced ways in which mental health intersects with perceptions of self-efficacy, understanding the potential influences and outcomes. Consider the varying impacts across subject areas and

different demographic factors. Propose targeted strategies and interventions that go beyond the immediate challenges of ERT to support sustained teacher well-being during challenging times. Investigate the role of professional development, administrator support, and community resources in fostering resilience and promoting positive mental health among high school teachers. This research can provide actionable insights to inform the development of comprehensive well-being programs tailored to the unique needs of high school teachers engaged in ERT when facing unexpected challenges.

EXPLORATION OF HYBRID TEACHING ENVIRONMENTS

My third recommendation would be to investigate the continued evolution of educational models, particularly focusing on teacher self-efficacy in the hybrid teaching environments that integrate in-person and remote learning for students. As educational paradigms shift, delve into the complex dynamics of how high school teachers adapt their instructional practices, leverage resources, maintain self-efficacy, and foster sustained student engagement within these ever-evolving educational settings. Examine the unique challenges and opportunities posed by hybrid teaching, considering factors such as technology integration, pedagogical strategies, and the role of teacher-student relationships. Explore the impact of this hybrid model on teacher workload, professional development needs, and overall job satisfaction. Investigate the potential variations in self-efficacy perceptions across subject areas and demographic factors. This research could provide valuable insights into effective strategies for navigating the complexities of hybrid teaching environments, ultimately contributing to the enhancement of teacher self-efficacy and instructional effectiveness in future educational landscapes.

PROBING THE POSITIVE OUTCOMES OF ERT

My final recommendation for future research would be to delve into probing the positive outcomes of ERT. While this study has illuminated the challenges and factors influencing teachers' self-efficacy during ERT, further investigation into the potential benefits and successes of this teaching modality is imperative. Understanding the positive outcomes of ERT, such as increased technological proficiency, innovative pedagogical approaches, and the cultivation of resilience among both educators and students, can provide valuable insights for informing educational practices in the future. Exploring the positive aspects of ERT can help identify strategies and resources that effectively support teachers in navigating similar crises or transitions in the future. By examining the strengths and benefits of ERT, future research can contribute to a more comprehensive understanding of its impact on education and inform the development of effective policies and interventions to enhance teaching and learning outcomes in emergency situations. Investigating the positive outcomes of ERT represents an essential next step in advancing scholarship in this area and improving educational practices in the face of unforeseen challenges.

The suggested research trajectory is more than an intellectual pursuit; it is a commitment to the continual enhancement of teacher self-efficacy and instructional effectiveness. It is a call to strengthen the educational landscape with enduring wisdom, transcending current paradigms and contributing to the indelible legacy of an empowered and impactful educational system. By addressing the outlined areas for future research, scholars are poised to contribute to a deeper understanding of the multifaceted dynamics of ERT. This understanding, in turn, becomes the foundation for the development of effective strategies, policies, and support systems tailored to the challenges faced by educators in the ever-evolving educational landscape of the future. In

this way, the research journey outlined herein is not a solitary endeavor but a collective effort to shape the future of education, ensuring its resilience and adaptability in the face of challenges yet to come.

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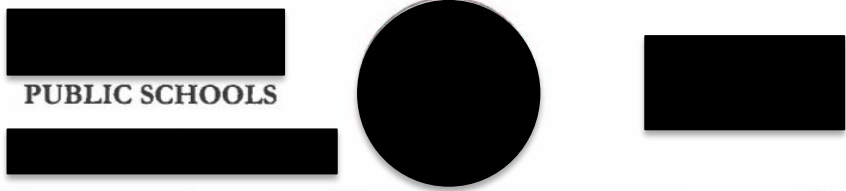
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APPENDIX A: DISTRICT APPROVAL FOR RESEARCH STUDY



March 28, 2023

To Whom it May Concern,

I am writing this letter on behalf of Andrea Padelsky, a student in the Educational Leadership, Management, and Policy Doctoral Program at Seton Hall University. Please accept this letter as approval for Ms. Padelsky to conduct her study at [REDACTED] High School. Feel free to contact me at [schwarz@\[REDACTED\]](mailto:schwarz@[REDACTED]); should you have any further questions.

Sincerely,

A large rectangular black box redacting the signature of the Superintendent.

Superintendent

APPENDIX B: LETTER OF INVITATION



Department Of Education Leadership, Management and Policy

Greetings,

I am currently a doctoral candidate at Seton Hall University. For my dissertation, I am conducting a research study on High School Teachers' Perceptions of the Factors that Foster and/or Inhibit Self-Efficacy During Emergency Remote Teaching. I am seeking to interview teachers to participate in this study. The Superintendent has granted permission to conduct my research within [REDACTED] High School.

The study intends to explore high school teachers' perceptions of the factors that fostered and/or inhibited self-efficacy during the spring 2020 school year and the implementation of emergency remote teaching. Therefore, this study aims to add to the existing literature involving teacher self-efficacy and emergency remote teaching.

As part of the study, I am inviting you to participate in an interview. The interview should take no more than 60 – 90 minutes. Participants will be privately interviewed via Zoom video conferencing in a quiet setting of your choice, at a time that is most convenient for you and not to interfere with your contractual work hours. The interview results will remain confidential and anonymous. The information collected from the interview will be transcribed. Upon the conclusion of the study, I plan to contact participants to ensure that my analyses accurately depict their perspectives. Participation in this study is voluntary and participants may withdraw at any time.

If you have any questions or would like to discuss further, please do not hesitate to contact me by phone:

[REDACTED]

If you are interested in participating in this study, please respond by email to andrea.padelsky@student.shu.edu

Thank you for your time and consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrea Padelsky", written in a cursive style.

Andrea Padelsky
Doctoral Candidate
Seton Hall University

APPENDIX C: INFORMED CONSENT FORM



Informed Consent Form

Seton Hall University
Institutional Review Board
MAY 25 2023
Approval Date
Expiration Date
MAY 25 2024

Title of Research Study: High School Teachers' Perceptions of the Factors that Foster and/or Inhibit Self-Efficacy During Emergency Remote Teaching

Principal Investigator: Andrea Padelsky, Doctoral Student

Department Affiliation: Department of Education Leadership, Management & Policy

Sponsor: This research is supported by Department of Education Leadership, Management & Policy Seton Hall University.

Brief summary about this research study:

The following summary of this research study is to help you decide whether or not you want to participate in the study. You have the right to ask questions at any time.

The purpose of this study is to examine high school teachers' perceptions of the factors that foster and/or inhibit self-efficacy during emergency remote teaching (ERT) as a result of the COVID-19 pandemic. This research study specifically explores teacher self-efficacy when faced with the immediate transition from an in-person classroom instructional model to a fully remote instructional model with limited time to prepare.

To adhere to the best practices for informed consent, the following steps will be implemented as part of the qualitative research process:

1. **Prior to the interview:** Participants will be provided with a copy of the informed consent form well in advance of the scheduled interview. This will allow participants sufficient time to review the document and become familiar with its contents.
2. **Addressing questions during the interview:** At the beginning of each interview, participants will have the opportunity to ask any questions they may have regarding the informed consent form. I will take the necessary time to answer their questions, clarify any concerns, and ensure that participants have a clear understanding of the information provided in the consent form.
3. **Signed consent form:** Before conducting the interview, participants will be asked to sign a copy of the informed consent form, indicating their voluntary participation and their understanding of the research procedures, potential risks, benefits, and confidentiality measures. This signed copy of the consent form will be securely collected and stored in accordance with the data protection guidelines.

I want to emphasize that I fully intend to follow the above 1, 2, 3, protocol for informed consent. It is crucial to ensure that participants are fully informed about the study and have the opportunity to provide their consent voluntarily. By incorporating these steps into the research process, I aim to uphold the highest ethical standards and respect the rights and well-being of the participants.

You will be asked to participate in one in-depth interview and one follow-up interview. If permission is given to be video recorded via Zoom, the researcher will video record the interviews. At the start of the interview, the researcher will explain the reason for her research. We expect that you will be in this research study for approximately 90 minutes. The primary risk of the participation is none. The main benefit of the participation is providing insight and offer individual accounts of teachers' lived



Informed Consent Form

experiences of the factors that foster and/or inhibit self-efficacy during emergency remote teaching as a result of the COVID-19 pandemic.

Purpose of the research study:

You are being asked to take part in this research study because you are an active high school teacher who was employed during the spring 2020 COVID-19 pandemic and utilized emergency remote teaching. Your participation in this research study is expected to be for 90 minutes. You will be one of 14 people who are expected to participate in this research study.

What you will be asked to do:

Your participation in this research study will include: The interview protocol will start as follows: the participant will be assigned a pseudonym, which will be used during the transcription of the video recording. The researcher will ask participants to describe a brief history of their career background in education. The researcher will define self-efficacy for the participants. Self-efficacy refers to an individual's belief in their own ability to successfully perform a specific task or accomplish a particular goal. It is a concept that has been extensively studied and defined by renowned researchers in the field. To ensure clarity and accuracy, I will incorporate a definition of self-efficacy along with relevant citations from well-known research. According to Bandura (1977), a leading researcher in the field of self-efficacy, it can be defined as "the belief in one's capabilities to organize and execute the course of action required to produce given attainments" (p.193). Bandura's work has had a significant impact on our understanding of self-efficacy and its role in motivation, learning, and achievement.

The researcher will then move to ask questions related to the research questions:

1. What are teacher perceptions of self-efficacy during COVID-19 emergency remote teaching?
2. What are high school teachers' perceptions of the factors that foster self-efficacy during emergency remote teaching?
3. What are high school teachers' perceptions of factors that inhibit self-efficacy during emergency remote teaching?

The interview protocol includes semi-structured, open-ended questions. The interview protocol questions are designed to inform how teachers' perceive self-efficacy during emergency remote teaching as a result of the COVID-19 pandemic.

Interview questions will focus on the following area: perceptions of self-efficacy, factors that contributed or inhibited self-efficacy, collaboration, strategies used to maintain or enhance self-efficacy.

The interviews will take no more than 90 minutes and will be in a location of their choice, via Zoom video conferencing. This interview will be done at a time convenient to the participant so to not interfere with their contractual work hours.

Your rights to participate, say no or withdraw:

Participation in research is voluntary. You can decide to participate or not to participate. You can choose to participate in the research study now and then decide to leave the research at any time. Your choice will not be held against you. You also have the right to skip over any questions that you feel uncomfortable answering, without penalty.



Informed Consent Form

The person in charge of the research study can remove you from the research study without your approval. Possible reasons for removal include missing study visits, non-compliance with the study procedures, and/or non-compliance with study procedures.

Potential benefits: There may be no direct benefit to you from this study. You may obtain personal satisfaction from knowing that you are participating in a project that contributes to new information in the field of education.

Potential risks:

The risks associated with this research study are minimal in nature. However, I have identified two potential risks that the research study participants may encounter. The first risk is a breach of confidentiality, which could occur if unauthorized parties gain access to my research study data. This could happen through various means, such as if Zoom or my laptop were breached, if someone were to walk in on an interview, or if a flash drive containing data were lost or stolen. To reduce the risk of a breach of confidentiality, I will take the following steps: first, I will ensure that all research study data is stored securely on encrypted devices and that access is limited to only those who need it. Second, I will use pseudonyms to refer to participants in the coding process and will keep a separate document linking each pseudonym to the participant's actual name and email, which will be stored securely and confidentially. Third, I will ensure that all interviews are conducted in a private and secure location, such as over Zoom with passwords and virtual waiting rooms enabled, and that only the participant and I are present during the interview. The second potential risk is psychological discomfort, which could occur if research study participants feel uncomfortable answering certain questions. To mitigate this risk, research study participants have the right to skip over any questions that they feel uncomfortable answering, without penalty to them. Additionally, as the primary investigator I will make sure to establish rapport with research study participants and create a comfortable and non-judgmental atmosphere during the interview process.

Your participation in this research may include all records being stored in a secured facility for a minimum of three years after the conclusion of the study. After three years the data collected will be shredded and video recordings destroyed. A digital copy of the data will be stored electronically on a USB memory key in the principal investigator's home office in a secured and locked cabinet.

Confidentiality and privacy:

Efforts will be made to limit the use or disclosure of your personal information. This information may include the research study documents or other source documents used for the purpose of conducting the study. These documents may include video recording and their transcripts. We cannot promise complete secrecy. Organizations that oversee research safety may inspect and copy your information. This includes the Seton Hall University Institutional Review Board who oversees the safe and ethical conduct of research at this institution. All information will be kept on a password protected laptop computer only accessible by the research team. The results of the research study may be published, but your name will not be used.

Data sharing:

Data collected from this study will not be shared with anyone outside of the study team.



Informed Consent Form

The attached document on a sperate page is my Letter of Solicitation to potential interview participants, it begins with the word "Greetings."

APPENDIX D: INTERVIEW QUESTIONS

TEACHER INTERVIEW QUESTIONS

1. Describe your perception of the overall effectiveness of your teaching the year prior to the COVID-19 pandemic.
2. What are your perceptions of self-efficacy in the context of emergency remote teaching?
3. Can you describe a time when you felt confident and effective in your teaching during the shift to emergency remote teaching?
4. What factors do you believe contributed to your self-efficacy during that time?
5. Can you describe a time when you felt less confident and effective during emergency remote teaching?
6. Describe your perception of the overall effectiveness of your teaching during emergency remote teaching.
7. What factors do you believe inhibited your self-efficacy during that time?
8. How do you define success in the context of emergency remote teaching, and how does this relate to your sense of self-efficacy?
9. In your opinion, how have school and district policies and supports impacted your self-efficacy during emergency remote teaching?
10. How have your relationships with students and their families impacted your self-efficacy during emergency remote teaching?
11. What role does collaboration with colleagues play in your self-efficacy during emergency remote teaching?

12. What strategies have you used to maintain or enhance your self-efficacy during emergency remote teaching?
13. Is there anything else you would like to add or share with me?

APPENDIX E: IRB APPROVAL



May 25, 2023

Andrea Padelsky,
Seton Hall University

Re: Study ID# 2023-450

Dear Andrew,

The Research Ethics Committee of the Seton Hall University Institutional Review Board reviewed and approved your research proposal entitled “High School Teachers’ Perceptions of the Factors that Foster and/or Inhibit Self-Efficacy During Emergency Remote Teaching” as resubmitted. This memo serves as official notice of the aforementioned study’s approval as exempt. Enclosed for your records are the stamped original Consent Form and recruitment flyer. You can make copies of these forms for your use.

The Institutional Review Board approval of your research is valid for a one-year period from the date of this letter. During this time, any changes to the research protocol, informed consent form or study team must be reviewed and approved by the IRB prior to their implementation.

You will receive a communication from the Institutional Review Board at least 1 month prior to your expiration date requesting that you submit an Annual Progress Report to keep the study active, or a Final Review of Human Subjects Research form to close the study. In all future correspondence with the Institutional Review Board, please reference the ID# listed above.

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "Mara Podvey".

Mara C. Podvey, PhD, OTR
Associate Professor
Co-Chair, Institutional Review Board

Office of the Institutional Review Board

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