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06/15/2021

HOOD COLLEGE



Teacher Self-Efficacy: An Examination of Variance Between Novice First-Career and Career-Switching Teachers in a Large Suburban School District in the COVID-19 Pandemic.

A DISSERTATION

Submitted to the Faculty of the
Graduate School of Hood College
In partial fulfillment of the requirements
for the degree
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By

Michael A. Lucido

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Novice Teacher Self-Efficacy in the COVID-19 Pandemic: An Examination of
Variance Between First-Career and Career-Switcher Teachers.

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ABSTRACT

The purpose of this quantitative study was to examine the variance of teacher self-efficacy between novice teachers and career-switching teachers in a local school district during the COVID-19 pandemic. More specifically, the study focused on the variation between teachers who are starting a career for the first time, and teachers who are entering the profession from another field. By examining teacher self-efficacy between these two groups on novice teachers, school districts and other educators can create support materials designed for the needs of each career-status teacher. Studying the teacher self-efficacy of teachers who have differing career backgrounds is essential because school districts are increasing their recruitment of alternative candidates to close the gap in teacher shortages. Consequently, teachers are entering the profession with a high level of preparation, or inadequate preparation. This research contributes to the collective knowledge of supporting and examining the challenges of novice teachers. Their variation in self-efficacy also adds to the fundamental theories of self-efficacy, social learning, and social cognitive theory. A survey was sent out to 198 novice teachers in the school district. The survey, the Teachers' Sense of Self-Efficacy Scale (TSES) along with demographic and supplemental free response questions, measured specific self-efficacy scores on three factors: student engagement, classroom management, and instructional strategies. There was no significant statistical difference between total teacher self-efficacy between the novice groups of teachers. The free response questions from the survey, however, did present variations in teacher self-efficacy between the two groups.

Chapter 1: INTRODUCTION

In March 2020, the COVID-19 pandemic surged throughout the United States. School systems closed without warning and began to implement tools and platforms for digital learning. Many parents, students, and teachers were hopeful that by the start of the 2020-21 school year, school buildings would be open for students to return. Unfortunately, the pandemic did not decrease in severity enough for the school year to start as normal. School systems implemented either fully virtual or hybrid learning models for students and teachers to keep all stakeholders safe from the virus. Because the school year began differently than any previous school year, novice teachers entered the profession in an unprecedented way. They would be teaching for the first time from home through the computer to students outside of the school building. This present study is important because it examined how teachers felt and reacted to teaching for the first time in the midst of the COVID-19 pandemic.

As a teaching mentor for my school district, I have worked with myriad teachers from all backgrounds. Aside from teaching in the classroom, I have enjoyed mentoring and working with novice teachers as they enter the profession for the first time. I try to alleviate their anxieties and find solutions to the challenges they face. In my experience, teachers who are coming from a different career and teachers who are starting their first career have unique challenges. Since the school year started in an unprecedented way, I was curious about the challenges novice first-career and career-switcher teachers would face, especially since there has been an increasing shortage of teachers in the United States over the past decade. Because of the increase in demand, school districts are finding alternative ways to attract individuals from their already established career paths (Troesch & Bauer, 2017). In 2015 alone, over 300 articles broadcasted school districts' needs for teachers because of state shortages (Sutcher et al., 2016). Teacher

turnover affects teachers early in their career, more so than teachers ready to retire (Smith & Ingersoll, 2007). Because teachers are coming into the profession from other sectors of the economy, they face different challenges than their colleagues who graduated from teaching colleges or programs. This exodus disrupts the retention of potentially highly qualified teachers that school systems need.

Teacher attrition remains high as student enrollment increases (Sass et al., 2012). Currently, there are not enough teachers to fill the demand (Peyton et al., 2020; Sutchter et al., 2016; Wiggan et al., 2020). For example, in one mid-Atlantic state, 2016-17 enrollment in teacher preparation programs was down by nearly 33% from the previous year (U.S. Department of Education, 2018). Many school districts rely on lateral entry teachers and career changers to fill the demand for educators. At the beginning of the 2018-19 school year, Oklahoma hired 3,038 nonaccredited teachers because of their growing teacher shortage (Eger, 2019). Eger summarized a statement from Oklahoma's State Legislature: "Districts have to be creative and find new ways to train emergency-certified teachers and partner with higher education institutions, so they complete the needed coursework to complete the process to become fully certified teachers" (para. 14).

Complicating the supply and demand challenges, career-switcher teachers are coming into the job with inadequate training and preparation (Fantilli & McDougall, 2009). Since there has been a rise in the number of career-switching teachers, school districts and universities continue to adjust to this change (Lerner & Zittleman, 2002a; Wilkins, 2017). Examining the self-perceived problems of career-switching first-year teachers, as argued in this present study, can offer solutions for identifying the needs of novice teachers, primarily if school systems use the information to design programs that equip their mentors and administrators with the

necessary tools to be effective at supporting and training novices. The purpose of my research was to examine the variance of self-efficacy between novice first-career teachers and novice career-switcher teachers during their first year.

According to Cuddapah and Stanford (2015), first-year teachers have a personal image of the ideal teacher. This finding was significant to my research because individuals perceive different elements as comprising a perfect teacher. Exemplary teachers may have excellent classroom management, engaging lessons, and high self-efficacy overall. This research on the self-efficacy of novice teachers is as crucial as that of research on the self-efficacy of students (Klassen & Chiu, 2010). The research does not address how career-switchers and first-career teachers, who are new to the profession, identify themselves in the education profession (Williams, 2010).

Many non-teachers have an ideal image of what a teacher should be (Cuddapah & Stanford, 2015). Teachers are supposed to be experts in their content area, stewards of democratic ideals, and pedagogical gurus for the rising generations. Teachers themselves also have an image of what teaching is and who teachers are. Ultimately, teachers believe they can influence student learning (Guskey & Passaro, 2008). This complicated web of images and the understanding of teaching complexities is vital for school systems to retain and support incoming teachers. For example, new teachers' self-efficacy is imperative for developing induction and support programming for new faculty (Andrews & Quinn, 2005; Bacon, 2020).

Self-efficacy is also vital for school districts because it is a significant factor in a prospective employee's career-choice (Betz & Hackett, 1986; Lent & Hackett, 1987; Chan, 2018). Before entering the profession, future teachers have mixed pedagogical knowledge or content knowledge. According to Darling-Hammond & Baratz-Snowden (2007):

Prospective teachers also vary greatly in their knowledge and skills before they enter preparation. Some come steeped in their content area, but unfamiliar with children, curriculum, and schools. Others, while knowledgeable about child development, are ignorant about particular areas of content or instruction or classroom management. (p. 114)

When school districts have more data, such as teacher self-efficacy about their new teachers, they can track the variables that impact student progress. Rimm-Kaufman and Sawyer (2004) suggested knowing the self-efficacy of teachers also helped attribute to higher student achievement because those teachers experienced a more positive approach to teaching.

The COVID-19 pandemic has exacerbated the need to study novice teachers in a unique time in teaching history. Many school districts have mandated distance learning, which is a new experience for novice teachers. Novice teachers may not have trained in learning management systems or best practices for online teaching.

Theoretical Framework

Bangs and Frost (2012) defined teaching self-efficacy as how a teacher perceives their success in a task. Rhodes and Fletcher (2013) suggested professional development where continuity and progression in self-efficacy development can help with employees' success. The importance of identifying the self-efficacy of employees is invaluable, especially for new teachers. Bandura (1978) suggested four influences of self-efficacy: performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. Teachers rely on the vicarious experiences, needed to bolster their outcome expectations.

Teacher self-efficacy is a teacher's expectations of whether or not they can affect the outcome of student engagement and learning (Tschannen-Moran & Hoy, 2001). Identifying

teacher self-efficacy enables administrators and teacher mentors to support new teachers by implementing accommodations. New induction programs may use teacher self-efficacy to gauge the differences in incoming teachers. Ingersoll and Strong (2011) suggested:

There is a necessary role for schools in providing an environment where novices are able to learn the craft and survive and succeed as teachers. The goal of these support programs is to improve the performance and retention of beginning teachers, that is, to both enhance and prevent the loss of teachers' human capital, with the ultimate aim of improving the growth and learning of students. (p. 203)

Because mastery experiences can enhance self-efficacy, all novice teachers should continue to be required to attend professional development, engage in mentoring, and take coursework to become highly qualified and effective teachers. Teacher self-efficacy allows researchers to understand the gaps and variations among teachers by identifying where they feel confident and weak with teacher related tasks. These variations are classroom management, lesson planning, and student engagement (Tschannen-Moran & Hoy, 2001). Studying the self-efficacy of new teachers, especially teachers starting a second career, is essential for supporting both novice and current teachers.

Statement of the Problem

During my first year as a mentor in my school district, I had a profound experience with a novice career-switcher teacher. This teacher transferred careers from the business sector to public education. Without any permanent teaching credentials, this teacher found themselves teaching young students for the first time. When this teacher spoke with me, I realized that the teacher did not demonstrate high self-efficacy regarding classroom management or engaging the students. This teacher did not have any formal teaching preparation, at the university level or

district professional development. Because there was a need for this teacher's specific content-area, the school district hired the teacher quickly without any adequate professional learning supports. Ultimately, the teacher's severe lack of self-efficacy affected their health and they resigned from the position before the school year concluded. This situation is the catalyst for my choice of studying novice career-switcher teachers, specifically their teacher self-efficacy.

My experience is not unique. In school districts across the United States, schools hire teachers who are coming from prior careers (Lerner & Zittleman, 2002a). Many schools are hiring these teachers provisionally or through lateral-entry programs created by state legislatures. States have incentivized individuals whose initial career-track was not teaching. As cited in Ingersoll and Smith (2003):

States, districts, and schools have instituted a wide range of initiatives to recruit new teachers: career-change programs designed to entice professionals into mid-career switches to teaching; alternative certification programs to allow college graduates to postpone formal education training and begin teaching immediately; recruitment of teaching candidates from other countries; and such financial incentives as signing bonuses, student loan forgiveness, housing assistance, and tuition reimbursement. (p. 1)

Novice career-switcher teachers, even those who have gone through a teacher preparation program, have a variety of personal and professional challenges resulting in high anxiety over teacher-related tasks (Haggard et al., 2006). Haggard et al. noted that career-switching teachers express concerns over the daily challenges of teaching such as "discipline, planning curricula, preparation, and paperwork" (p. 322).

The specific problem is that school districts do not have data on teacher self-efficacy variations between novice first-career and career-switcher teachers, resulting in gaps in teacher

support in their first year. Much of the research does not address how incoming teachers' backgrounds affect their likelihood of leaving after their first year. Some research has suggested that school staffing, family life, general dissatisfaction, and career-goals significantly impact new-teacher turnover (Ingersoll & Smith, 2003). However, these broad categories do not consider self-efficacy.

Purpose of the Study

The purpose of this quantitative self-efficacy study was to explore the variations of teacher self-efficacy between novice first-career and career-switching teachers in the COVID-19 pandemic, leading to the creation of resources, such as professional development, to help school district induction programs differentiate the supports based on the needs of novice teachers. The present study used social cognitive theory and learning theory in a self-efficacy survey of novice teachers in a large suburban school district in the mid-Atlantic. Exploring teacher self-efficacy variation will provide insights into how to support a growing number of career-switcher and novice teachers in the school district.

Research Questions and Hypotheses

Five research questions and their corresponding hypotheses guided this research.

RQ1. How does teacher self-efficacy, which consists of student engagement, classroom management, and instructional strategies, vary between first and career-switching novice teachers in the COVID-19 Pandemic?

RQ1a: Which self-efficacy factors indicate greatest variance?

H1₀: There is no difference in the self-efficacy of first and career-switching novice teachers.

H1₀ : $\mu^{\text{First-career}} = \mu^{\text{Career-switcher}}$

H1a: There is a difference in the self-efficacy of first and career-switching novice teachers.

$$H1a: \mu^{\text{First-career}} \neq \mu^{\text{Career-switcher}}$$

RQ2: Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?

H1₀: There is no difference in the self-efficacy of teachers who have completed teacher preparation course work and those who did not.

$$H1_0: \mu^{\text{Prior preparation}} = \mu^{\text{No preparation}}$$

H1a: There is a difference in the self-efficacy of teachers who have completed teacher preparation course work and those who did not.

$$H1a: \mu^{\text{Prior preparation}} \neq \mu^{\text{No preparation}}$$

RQ3: Do prior career fields have an impact on teacher self-efficacy?

H1₀: There is no difference in the self-efficacy of teachers who come to teaching from prior career fields.

$$H1_0: \mu^{\text{Prior career field}} = \mu^{\text{No prior career field}}$$

H1a: There is a difference in the self-efficacy of teachers who come to teaching from prior career fields.

$$H1a: \mu^{\text{Prior career field}} \neq \mu^{\text{No Prior career field}}$$

RQ4: How do novice first-career and novice career-switching teachers vary in their perception of teacher-related tasks?

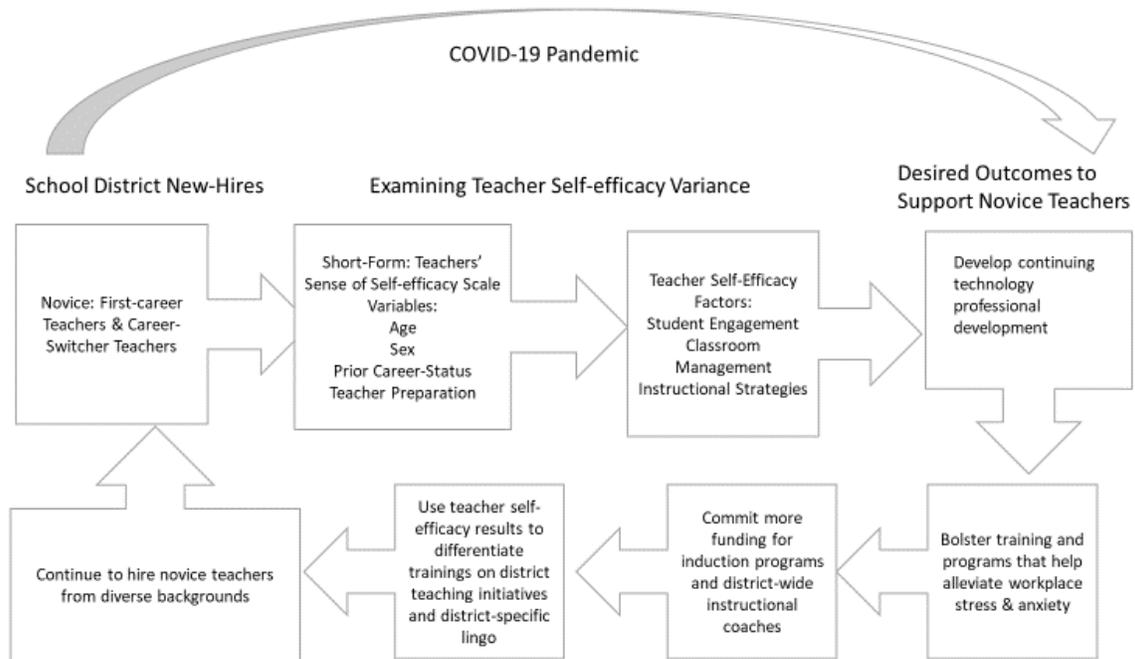
Conceptual Framework

Because teacher self-efficacy gives an indication of how a teacher feels about a teaching-related task, this research assumed that school districts can use self-efficacy measurements and

tools to improve and enhance induction programs and materials for new and career-switching teachers, especially since there are many unprecedented factors related to teaching during a pandemic. There is a significant body of research testing the reliability and validity of different self-efficacy scales designed for educators. For example, Tschannen-Moran and Hoy's (2001) Teachers' Self-Efficacy Scale (TSES) has been used successfully to measure self-efficacy. According to Klassen and Chiu (2010), researchers have investigated the reliability and validity of the TSES in various settings, testing both the primary and subscales, which include self-efficacy for classroom management, instructional strategies, and student engagement.

The COVID-19 pandemic brought many challenges to education because teachers were unequipped with the technological changes and extra duties that were quickly imposed on them all while dealing with their own personal stressors of living, working in, and surviving a global pandemic. Because of the pandemic, the experiences of the 2021 incoming novice teachers were unique. The TSES measures the teacher self-efficacy of three distinct areas: student engagement, classroom management, and instructional strategies. The goal of my study was to use the responses from the TSES and free responses to inform school systems on the needs of teachers and have a positive impact on maintaining a strong a positive workforce for the future. (See Figure 1.)

Figure 1



Conceptual Framework

Overview of Methodology

The methodology for this research included determining the survey sample, identifying the procedures to implement the study, determining the study measures, and the tests to employ.

Sample

I drew a sample from 198 novice first-career and career-switcher teachers, in a suburban school district in a mid-Atlantic state. In the 2020-2021 school year, the school district identified 198 teachers as novice. This district hires over 500 K-12 teachers, roughly 150-300 are novice teachers each year. In total, there are over 5000 teachers working in the district teaching over 80,000 students. Out of 198 teachers, 110 submitted a survey. Sixty-eight total surveys were useable.

Procedures

This non-experimental study was approved by the IRB process at Hood College and the school district under study. Each respondent gave their voluntary consent before starting and submitting the Tschannen-Moran and Hoy (2001) Teachers' Sense of Self Efficacy Scale (TSES). The survey was distributed via email using SurveyMonkey. SurveyMonkey was selected because it allows for large amounts of responses and the data can be loaded into an Excel file. After I concluded the research, I destroyed the data. Respondents could choose to retract their participation at any time. Respondents had one month to complete the survey once they received the link. The results presented were from completed surveys. The respondents answered demographic and free response questions to supplement the objective survey responses. I transcribed the data from SurveyMonkey into SPSS version 27 for statistical analysis.

Measures

I measured self-efficacy with the Teachers' Sense of Self-Efficacy Scale (TSES). This scale measures self-efficacy related to student engagement, instructional strategies, and classroom management (Tschannen-Moran & Hoy, 2001). The Cronbach's alpha score for the construct engagement was a .81, instructional strategies scored a .86, and classroom management scored a .86 respectively.

Statistics

I used *t*-tests, one-way ANOVA, and a Mann-Whitney U Test to analyze variance. The continuous dependent variables were student engagement, instructional strategies, and classroom management, as indicated in the Teacher's Sense of Self-Efficacy Scale (TSES). The

independent control variables were prior-career status, prior-career category, age, level of education, and teacher preparation.

The independent variables primarily focused on the career status of the teacher. Either the teacher had prior work experience in a non-education related field or no prior career at all. I controlled for possible factors that may affect self-efficacy, such as years of work experience, education, and age. In addition to the TSES, I asked a series of free response questions to supplement the self-efficacy scores. The self-efficacy scores only gave a narrow view of the self-perceived weaknesses and strengths of teaching elements. I collected specific details about how the respondents felt at the beginning of the academic year by allowing teachers to reply in their own words. Chapter 3 gives more information about the free response questions.

Assumptions, Delimitations, and Limitations

This study assumed that there is a significant variation in teacher self-efficacy between first career and career-switching novice teachers. Having multiple careers changes your perspective and outlook on life, especially when transitioning into a new job. Likewise, a teacher who has never had a career will also have a different viewpoint. Another assumption was that all respondents would answer truthfully on the TSES.

A delimitation of this study was that the study surveyed only new teachers in a single school district. This delimitation affected the external validity of the study. This study can only make statements about one school district's new teachers. A sampling of more than one school district would increase the validity of the results. A study comparing the self-efficacy of new teachers with veteran teachers would help make broader claims about teachers' experiences during their first year. Moreover, the literature review in chapter two may impart biases that

other researchers or I have, such as their own experience as a new teacher. Literature reviews are never complete or fully exhaustive.

Definition of Terms

Several terms were used in the design and execution of this research study.

Classroom Management. Classroom management is a task by teachers to set and monitor student behavioral expectations, maintain classroom organization, and create a positive environment (Schumacher et al., 2015).

COVID-19. COVID-19 is the virus SARS-CoV-2 discovered in 2019 that caused a global pandemic beginning in 2020 (World Health Organization, 2020).

Instructional Strategies. Instructional strategies are ways that teachers engage students, communicate content knowledge, and provide questioning strategies (Schumacher et al., 2015).

Novice Teacher. Novice teachers are teachers in their first year of teaching (Tok & Tok, 2016). They have never professionally taught in a classroom.

Career-Switcher Teacher. Career-switcher teachers came into the teaching profession with a provisional license and did not enter teaching directly after college.

Student Engagement. Student engagement is a student's participation in classroom work and activities (Keyes, 2019).

Teacher Self-Efficacy. Teacher self-efficacy refers to a teacher's beliefs about how they affect and influence students' motivation and achievement (Klassen & Chiu, 2010).

Teacher's Sense of Self-Efficacy Scale (TSES). The Teacher's Sense of Self-Efficacy Scale is a 24 Likert-item scale developed by Tschannen and Hoy (2001), which measures teaching self-efficacy in three categories: student engagement, instructional strategies, and classroom management.

Summary

This study sought to understand the variations in teacher self-efficacy through social cognitive theory and social learning theory. Previous studies have examined the relationship between new teachers in general. There is a gap in studying the different variations of new teachers, primarily in differing career statuses. This study will benefit school administrators, higher-education programs, human resource officers, school mentors, and other teacher leaders to support new faculty.

Organization of Dissertation

The dissertation is grouped into four additional chapters. Chapter 2 is a comprehensive literature review on teacher self-efficacy, novice teachers, and career-switching teachers. Chapter 3 discusses the research design, execution, and validity of the study. The remaining chapters present the findings and implications of the results of the study.

Chapter 2: REVIEW OF LITERATURE

This chapter gives an overview of research concerning the educational impact of the COVID-19 pandemic on the education system, the theories behind teacher self-efficacy, teacher self-efficacy instruments, and previous research on novice teachers. I chose to focus on these topics because these research components shaped the survey questions and instrument discussed in the next chapter.

There is a large body of knowledge that pertains to studying the challenges of new teachers; however, there is a limited body of research about novice teachers during a pandemic. Both before and during the COVID-19 pandemic, the looming teacher shortage and turnover rates in many states prompted researchers to consider why new teachers leave the profession at an alarming rate. Most published works focus on how teacher self-efficacy affects student achievement and why people with established careers switch to the education field. While these studies provide valuable information about how new teachers struggle in their new careers, they provide only a partial picture of the variations of self-efficacy between those teachers entering the workforce for the first time compared to new teachers with previous careers.

This literature review aims to synthesize the information already available about the self-efficacy of new teachers. There is a section on the seminal work on learning theory and the social cognitive theory that highlights the essential concepts of self-efficacy. Since the study is about teacher self-efficacy among first and career-switcher teachers, there is also a section on teacher preparation, induction, and career switchers and their motivations, challenges, and obstacles they faced entering the teaching profession.

The search strategy for the literature review began with organizing a list of specific keywords to search on online journal databases through Hood College and Google Scholar.

Keywords included but were not limited to *COVID-19*, *learning theory*, *self-efficacy scales*, *second-career teachers*, *teacher self-efficacy*, *self-efficacy*, *new teachers*, *novice teachers*, *career-switchers*, *career-switcher teachers*, and *teacher shortage*. This search strategy yielded an array of journal articles about different areas of self-efficacy; I used ones about teachers and their careers.

COVID-19's Effect on School Districts

The research on COVID-19's effect on school districts, especially about their resources for new teachers, is limited. According to Daniel (2020), the virus has presented many challenges for all stakeholders in both public and higher education. Public school districts and universities around the world implemented distance learning software and diversified curricula to support and continue education for students (Gunawan et al., 2020). This virtual format poses a specific challenge for teachers and administrators who are unfamiliar with or have not experienced online learning (Daniel, 2020). According to a 2020 RAND report, researchers found teachers needed support in teaching remote instructions, strategies for motivating students, and ways to address social and emotional learning (Hamilton et al., 2020). The report also indicated that there were significant disparities among the kinds of instruction and resources available by school districts serving different student populations (Hamilton et al., 2020). The research in this paper examines the feelings of only novice teachers in a localized school district in the United States.

Rotter's Social Learning Theory

The social learning theory uses three concepts of behavior potential, expectancy, and reinforcement to predict behavior (Rotter et al., 1954). The locus of control, or an individual's internal and external control over a desired outcome, is the foundation of Rotter's theory

(Nowicki & Strickland, 1973). A person has an internal locus of control if they believe they can control an outcome. Likewise, if a person believes the environment influences the outcome, that person has an external locus of control (Nowicki & Strickland, 1973). Social Learning and Social Cognitive Theory are part of the basis of the self-efficacy scales discussed later in this chapter. For example, the Gibson and Dembo's (1984) and Ashton and Webb's (1986) scales indicate that the scales are closely related to this theory and social cognitive theory (Pigge & Marso, 1994).

Bandura's Social Cognitive Theory

There was a paradigm shift in the 1970s among researchers regarding theorizing cognitive states that affect behavior to how performance-based procedures were affecting physiological changes. Bandura fused the theory and practice to form the basis of Social Cognitive Theory. Social Cognitive Theory suggests that experiences, behavior, and social interactions determine how those factors will affect a person and how a person will affect their surroundings (Bandura & Cliffs, 1986). Further developing his theory for the catalyst of human behavior, Bandura (1991) suggested:

Most human behavior, being purposive, is regulated by forethought. The future time perspective manifests itself in many different ways. People form beliefs about what they can do, they anticipate the likely consequences of prospective actions, they set goals for themselves, and they otherwise plan courses of action that are likely to produce desired outcomes. (p. 248)

Social Cognitive Theory also emphasizes purposive actions through symbolic experiences. Cognitively perceived actions for the future manifest themselves as motivators and

regulators in the present (Bandura, 1991). Ultimately, the perception of the future helps motivate individuals in the present.

Self-Efficacy

Self-efficacy is a construct under the wider Social Cognitive Theory advocated by Bandura and Cliff (1986). Bandura (1978) theorized that humans model behaviors by observing and experiencing others' actions, which they deem to be effective. Rhodes and Fletcher (2013) suggested professional development where continuity and progression in self-efficacy development can help with employees' success. The importance of knowing the self-efficacy of employees is invaluable, especially for new teachers. Bandura (1978) suggested four influences of self-efficacy: performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal.

Performance Accomplishments

Bandura (1978) regarded performance accomplishments as one of the most influential self-efficacy characteristics because it emphasizes mastery experiences. If a person completes a task, the result is an increase in efficacy. On the other hand, failures, depending on timing and degree, can lower a person's efficacy in a task.

Vicarious Experiences

Vicarious experiences are considered the second most important of the influences of self-efficacy. Vicarious experiences are others' experiences, which directly affect a person's perception of whether they can complete a task. Modeled behavior with clear outcomes gives more information about efficacy than ambiguous actions (Bandura, 1978).

Verbal Persuasion

The verbal persuasion influence is the process by which the words of others influence people. Bandura (1978) stated:

In attempts to influence human behavior, verbal persuasion is widely used because of its ease and ready availability. People are led, through suggestion, into believing they can cope successfully with what has overwhelmed them in the past. Efficacy expectations induced in this manner are also likely to be weaker than those arising from one's own accomplishments because they do not provide an authentic experiential base for them. (p. 198)

People who can succeed in a task or a difficult situation are likely to fare better than those who were not socially persuaded.

Emotional Arousal

The fourth most important influence of self-efficacy, emotional arousal, suggests that having a positive emotional response when anxiety is present mobilizes the individual more effectively. Bandura (1978) further suggested:

People rely partly on their state of physiological arousal in judging their anxiety and vulnerability to stress. Because high arousal usually debilitates performance, individuals are more likely to expect success when they are not beset by aversive arousal than if they are tense and viscerally agitated. (p. 198)

Anxiety, stress, and various other emotional states directly affect a person's ability to complete a task.

Bandura's Social Cognitive Theory (1978) and Rotter's Social Learning Theory (Rotter et al., 1954) are the seminal and foundational theories that govern most teacher self-efficacy

measurements. Rose and Medway's (1981) Teacher Locus of Control, for example, uses Social Learning Theory as the foundational theory to determine whether a teacher perceives that they have an internal or external locus of control regarding different areas of teaching. Moreover, teacher self-efficacy scales such as the Teacher's Sense of Self-Efficacy Scale (Tschannen-Moran & Hoy, 2001) and Teacher Efficacy Scale (Guskey, 1981) incorporate elements of Social Cognitive Theory into their scales.

Teacher Self-Efficacy

This section will examine the studies in which researchers have used teacher self-efficacy scales to make statements about teachers. Looking at these studies provides a context for how researchers use teacher self-efficacy to improve and enhance the teaching profession. The term self-efficacy, as defined by Bangs and Frost (2012), means a teacher believes that they can succeed in a task. Rhodes and Fletcher (2013) suggested professional development where continuity and progression in self-efficacy development can help with employees' success.

There is a significant body of research testing the reliability and validity of different self-efficacy scales designed for educators (Chen et al., 2001; Emmer & Hickman, 1991; Skaalvik & Skaalvik, 2010). Tschannen-Moran and Hoy's (2001) Teachers' Self-Efficacy Scale (TSES), as an example, has been used successfully. According to Klassen and Chiu (2010), researchers have investigated the reliability and validity of the TSES in various settings, testing both the primary and subscales, which include self-efficacy for classroom management, instructional strategies, and student engagement.

Researchers used different self-efficacy scales in other studies. For instance, Skaalvik and Skaalvik (2007) used the Norwegian Teacher Self-Efficacy Scale. Skaalvik and Skaalvik inventoried 244 elementary and middle school teachers. Their analysis supported many different

facets of efficacy as it relates to teaching. They created subscales, which included self-efficacy on instruction, adapting education to students' needs, student motivation, classroom management, cooperation with colleagues and parents, and coping with occupation challenges.

Tschannen-Moran and Hoy (2001) defined teacher efficacy as a teacher's judgment on their ability to impact the desired outcomes of student engagement and learning among all students. Researchers have been studying the concept of teacher self-efficacy for the past two decades as essential variables for teacher success (Guskey & Passaro, 2008).

Teacher self-efficacy was vital for this study because, as described by Tshannen-Moran and Hoy (2001b), the results give a better understanding of efficacy in three critical areas of teaching: classroom management, student engagement, and lesson planning. These three factors are elements of teacher preparation and evaluation.

History of the Measures of Teacher Self-Efficacy

Numerous scales measure teacher self-efficacy. The self-efficacy scales started with items in the RAND study in the 1970s (Guskey & Passaro, 2008). The RAND Corporation conducted a study on 20 elementary schools examining an accelerated reading program in Los Angeles schools. The researchers employed a mixed-method approach using both inventories and interviews to see how elementary school students and teachers were progressing and achieving in the program. Principals and reading specialists in the target schools gathered most of the data on school and classroom practices. The RAND corporation conducted the study with 81 of 83 teachers who taught 6th grade in these schools in the 1974-1975 school year (Armor et al., 1976).

According to Ashton and Webb (1986), the outcome expectations of Bandura's Self-Efficacy Theory for the consequences of teaching presented itself in two of the RAND items:

"When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on their home environment" (Guskey & Passaro, 2018, p. 16) and "If I really try hard, I can get through to even the most difficult or unmotivated students" (Guskey & Passaro, 2008, p. 21). These two items became a model for self-efficacy scales regarding teaching and education.

Guskey's Responsibility for Student Achievement

Guskey (1981) developed The Responsibility for Student Achievement Questionnaire (RSA) to assess teacher beliefs regarding responsibility for their students' academic successes and failures. The RSA is unique in the scope of self-efficacy scales because it focuses on teacher responsibility. This instrument measures internal versus external responsibility beliefs exclusive to teachers in an academic or school environment (Guskey, 1981). Previously, researchers primarily examined the characteristics of student achievement.

Rose and Medway's Teacher Locus of Control

Rose and Medway (1981) developed a 28-item scale called the Teacher Locus of Control Scale (TLC) to measure elementary school teachers' perceptions of control in the classroom. The TLC measures the relationship between teacher locus of control, teacher behavior, and student achievement. In their study, Rose and Medway predicted that internal teachers who controlled their environments would produce higher achieving students. The researchers used results from two phases. The results showed a modest but significant correlation of internal and external control of 44 fourth grade teachers and student achievement in math, reading, and language.

The TLC is significant because their scale gained traction using Rotter's Theory of Locus of Control (Rotter et al., 1954), while other researchers were pivoting to Bandura's (1978) theory on self-efficacy. Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) and Bandura (1978)

designed scales based on self-efficacy scales. The TLC, RSA, and the RAND study contributed to newer scales (Ashton & Webb, 1986; Guskey, 1981; Rose & Medway, 1981).

Gibson and Dembo's Teacher Efficacy Scale

Gibson and Dembo (1984) developed the Teacher Efficacy Scale (TES) to examine the relationship between teacher self-efficacy and observable teacher behaviors. They analyzed data based on three traits: teacher efficacy, verbal ability, and flexibility. Gibson and Dembo validated the construct of self-efficacy by conducting a three-phase investigation. These three investigations were a factors analysis, multi-trait multi-method analysis, and a series of classroom observations.

For the first phase of the investigation, Gibson and Dembo (1984) administered a 30-item scale to 208 elementary school teachers. Using Bandura's (1978) two-factor model of self-efficacy (teacher efficacy and outcome expectations), factor analysis showed they were correlated but independent constructs ($r = -.19$). Out of a 28% variance, factor one accounted for 18.8%, and the second factor accounted for 10%.

The second phase of the study is important to the history of self-efficacy measurements because Gibson and Dembo (1984) sought to identify teacher efficacy as an independent construct. They gave 55 graduate education students three different measures: the survey from phase 1, a verbal ability test, and a flexibility test. The tests together showed a .72 reliability, verifying a distinction between the constructs. Gibson and Dembo observed eight teachers from the first phase of the study. They chose four teachers who scored high in self-efficacy and another four who scored low. During morning classroom time, Gibson and Dembo observed the teachers with interrater reliability of .73 to .91. This study showed that, indeed, self-efficacy is an independent construct.

Tschannen-Moran and Woolfolk Hoy and Hoy's Teachers' Sense of Efficacy Scale

Tschannen-Moran and Woolfolk Hoy and Hoy (1998) developed the Teachers' Sense of Efficacy Scale (TSES), formerly known as the Ohio State Teacher Efficacy Scale. The scale seeks to integrate two dimensions, teaching tasks and a teacher's self-perception of teacher-related tasks. Tshannen-Moran et al. (1998) modified and reduced the number of items in the TSES three times. There is both a long and short form that captures a teacher's perception of classroom-related behaviors. The original measure had 52 items given to 224 preservice and current teachers using a 4-point Likert scale of "not at all," "somewhat," "important," and "critical."

After the second study of 217 teachers, Tschannen-Moran and Hoy (2001b) reduced the items to 18 items and three subscales for student engagement, instructional strategies, and classroom management. Each subscale had a reliability of greater than 0.70 (Tschannen-Moran & Hoy, 2001b). For construct validity, the researchers tested the TSES against both the RAND study questions and the Gibson and Dembo (1984) items. The TSES was positively related to the RAND study items ($r = 0.35$ and 0.28 , $p < .01$) as well as the Gibson and Dembo items ($r = 0.48$, $p < .01$). The final 36-item instrument was ready after giving it to 410 respondents in a third study. The instrument's final version has a 24 item long scale and a 12 item short scale.

Researchers have validated self-efficacy as performance indicators or career-choice (Emmer & Hickman, 1991; Lent et al., 1986). As developed in the past 30 years, teacher self-efficacy instruments show a level of intricacy and precision measuring the self-perceived abilities in all aspects of teaching. The TSES developed by Tschannen-Moran et al. (1998) is the primary tool for the methodology discussed in chapter 3.

Counter Arguments of Self-Efficacy

Some researchers attribute teacher attrition to the impact of the teacher's work environment, not necessarily motivation or self-efficacy. Goddard, O'Brien, and Goddard (2006) found that environmental stimuli played a significant role in teacher burnout. Through regression analysis using the Work Environment Scale, Goddard et al. found that teachers were unhappy with their work environment by the second year of teaching. Glazier (2009) claimed that the teachers who surround the individual contribute to teacher-learning. In other research, environmental factors contribute to efficacy on a larger scale. Collective teacher efficacy is how the teachers feel they can complete a task together (Goddard et al., 2000). Indeed, knowing the teachers' collective self-efficacy provides vital information. The collective teacher self-efficacy does not target teachers who first arrive at the school with no prior teaching experience. The majority of research uses individual self-efficacy scales (Smith & Ingersoll, 2007).

Concerning countering self-efficacy and its smaller elements as a whole, Hawkins (1995) concluded that self-efficacy is a predictor but not a cause for the behavior. Bandura (1995) argued self-efficacy is indeed causal and a predictor for behavior. Bandura (1978) contended that self-efficacy leads to behavior outcome expectations. Through vicarious experiences, people increase their self-efficacy (Bandura, 1978). As teachers progress through the year, their skills and perceptions are going to change.

Hawkins (1995) and Bandura (1995) argued that the environment is a crucial predictor for behavior. As researchers examine teacher self-efficacy in various populations and develop new measurements, they must contend with counterarguments to the seminal and foundational theories behind their work. In other words, environmental variables could influence the outcomes of self-efficacy for the novice teacher respondents.

Novice First-Career Teachers

Many studies refer to novice teachers either as first-year or beginning teachers (Cuddapah & Stanford, 2015; Glickman & Tamashiro, 1982; Hoy & Spero, 2005). Hoy and Spero (2005) defined novice teachers as those who are in their first-year teaching. The information in this section refers to teachers with no prior experience.

Hoy and Spero (2005) examined 53 prospective teachers in a Master of Education teacher preparation program. In their third phase of the study, they explored sources of efficacy related to teaching. For example, the researchers asked the respondents to rate several aspects of the resources and supports in their first-year teaching assignment. These supports included resource materials, support from colleagues, administrators, and parents, and community support. The results were compelling because teachers had a higher level of self-efficacy during their preservice work. As they continued into their first year, the teachers' self-efficacy declined because they felt they lacked the supports and resources (Hoy & Spero, 2005).

Studies have shown that high efficient novice teachers are more proficient in presenting lesson plans and student engagement (Tok & Tok, 2016). However, researchers are concerned about novice teacher self-efficacy regarding classroom management. Farkas, Johnson, and Foleno (2000) stated:

But new teachers believe they could have used far more preparation for the realities and challenges they inevitably had to confront when running real-world classrooms. What would seem to be simple issues of running the day-to-day mechanics of a classroom prove to be surprisingly distressing and stressful, especially during the early years of a teacher's career. (p. 29)

Likewise, Tok and Tok (2016) explored novice teachers' classroom management self-efficacy beliefs. Tok and Tok surveyed 85 novice teachers during their first year and concluded that, although there were positive classroom-management self-efficacy responses, novice teachers still needed school-based support.

Challenges for Novice First-Career Teachers

Novice first-career teachers face a variety of challenges. These teachers are entering the workforce for the first time as distinguished members in their communities. Teachers have a tremendous responsibility, which requires a high level of professionalism and content knowledge. Because novice first-career teachers are starting their careers they experience burnout, lack professional knowledge, and rely on the support of other teachers.

Novice first-career teachers do not enter the profession without challenges even though they are exposed to training in their preservice years (Paniagua, 2018). Compared to novice career-switcher teachers, these novices experience burnout within their first year (Gavish & Friedman, 2010). Novice first-career experience burnout when they feel they do not receive support from their administration and the public at large (Gavish & Friedman, 2010).

Burnout can have serious consequences on teacher attrition. Troesch and Bauer (2020) found that novice first-career teachers were more likely to leave than novice career-switchers. The study also found novice first-career teachers faced challenges due to professional demands about student learning and student assessment. These challenges may be contributed to the high level of emphasis society puts on teachers to improve test scores (Troesch & Bauer, 2020). Many younger teachers also do not have experience with discipline problems. Skaalvik and Skaalvik (2011) found student discipline as a contributing factor for teachers leaving the profession.

Having no experience in the professional world hinders novice first-career teachers because they must rely on personal experiences. Paniagua (2018) stated: “The absence of a strong corpus of professional knowledge makes local practice to be based on the personal, unquestioned experiences of teachers rather than on principles coming from educational sciences” (p. 17). This inexperience has ramifications in different areas of teaching.

Communicating with parents was a challenge for novice first-career teachers, Skaalvik and Skaalvik (2011) stated:

Today, teachers are increasingly dependent on cooperating with parents and need positive relations with them. Therefore, experiencing that one is not trusted by the parents, that they are critical, or that cooperating with parents is difficult may be a serious strain on teachers with negative impact on their feeling of belonging. It may increase anxiety, create a feeling that one is not doing a good job, and promote a need for self-protection. (p. 1031)

Because novice first-career teachers lack professional experiences, such as communicating with parents, they must rely on mentors and school staff for support. Having support from various staff is important because teachers experience a significant amount of stress compared to other careers (Stoebert & Rennert, 2008). Peters and Pearce (2011) found novice teachers’ relationships with their principals influenced their overall well-being. Moreover, mentors also played a critical role in the development and well-being of first-career teachers in their first year (Fantilli & McDougall, 2009).

Novice Career-Switcher Teachers

This section gives an overview of the already established research on the primary independent variable of the study. Specifically, I looked at the teacher self-efficacy of career-

switching novice teachers. Career-switching novice teachers take on the challenge of teaching as indications of personal and professional growth (Freidus & Maris, 1991). However, these teachers are frequently struggling (Anderson et al., 2014). Freidus and Maris (1991) suggested that “to make programs for second-career teachers effective, we must know how they see themselves, the careers they are leaving, and the careers they are choosing (p. 4). According to Ingersoll (2007), career-switching teachers are more susceptible to attrition in their first five years than teachers in their first-career. Career-switching teachers are also more desirable to fill the gaps in hiring shortages because they possess higher content knowledge (Boyd et al., 2011). Boyd et al. studied career-switching teachers on whether this reasoning was strong:

However, in order for this reasoning to be valid, at least three conditions must hold: (1) career-switchers must have strong content knowledge; (2) strong content knowledge must be positively related to student achievement; (3) career-switchers must not have other characteristics which are negatively related to student achievement and which might overwhelm any benefits of strong content knowledge. (p. 1231)

Indeed, the conditions are essential for making a case for the increase in hiring career-switching teachers. Alharbi (2020) echoed the need to provide support for career-switcher teachers. Alharbi sought to examine how prior career experience affected their performance in the classroom. Study findings revealed that career-switcher teacher prior backgrounds helped them in teacher related tasks, including classroom management and in-classroom performance. Alharbi recommended that career-switchers should be given practical training, such as learning the technical aspects of teachers. Most interestingly, the researcher recommended that career-switcher teachers would do well in leadership roles in their schools.

Career-switcher teacher experiences differ in the profession, especially in the face of adversity. Bar-Tal and Gilat (2019) explained the dichotomy of experiences:

Research on novice teachers' induction to teaching indicates that this stage involves two forces acting in different directions: on the one hand, demands from the environment and external pressures, which can become most disturbing experiences, leading to crises and the decision to leave. On the other hand, teaching is by nature a rewarding experience, involving a sense of satisfaction, meaning, and self-realization. (p. 44)

Most research suggests that career-switching teachers bring real-world knowledge into the classroom and exhibit more professional attitudes (Boyd et al., 2011). Novice career-switcher teachers enter the profession due to their willingness to pass down their knowledge (Shwartz & Dori, 2019). Haggard, Slostad, and Winterton (2006) also explored the challenges that second-career teachers face during their preceding years in the classroom:

Second career teachers found the transition from previous careers to the 'workplace called school' both challenging and rewarding. Professional challenges were similar to those of undergraduate students and focused on discipline, time management, administrative paperwork, writing lesson plans and preparation. Personal challenges centered on balancing family time, professional responsibilities, and replacing lost income. (p. 320)

A few studies explored the effectiveness and retention of career-switching teachers compared with first-year teachers who have had no prior work experience. In a 2005 study of New York teachers (n=4303), Boyd et al. (2011) found that career-switching teachers were no more effective than first career teachers. Moreover, there was no significant difference in retention between the teacher groups, although career-switching teachers were more likely to

transfer schools. Johnson and Birkeland (2003) examined 50 teachers in Massachusetts. They found that mid-career entrants were three times as likely to move schools by their third year. School transfers may lead researchers to wonder about the effectiveness of career-switching teachers. However, even though career-switcher teachers may be more likely to transfer schools, Brindley and Parker (2010) found that both career-switchers and first-career teachers expressed that they faced some challenges.

To increase efficiency first-year teachers must rely on their colleagues and school systems to provide sustainable and enriching professional development opportunities. These professional development communities give new teachers ideas and advice; however, there is no guarantee that schools can provide these opportunities (Johnson & Birkeland, 2003). Johnson and Birkeland (2003) suggested that retaining teachers in poverty-stricken or low-performing schools is more challenging because of demands for higher test scores and evaluations:

Supporting and retaining those teachers is likely to be an even greater undertaking, particularly in low-income and low-performing schools. Despite the inequitable distribution of resources across schools, teachers today are expected to educate all students to high standards. Where once a teacher's success or failure could be hidden from the public, administrators, and colleagues, today states publish their schools' standardized test scores and principals review teachers' performance based on how their students do on those tests. (p. 7)

Novice Career Switcher Teachers' Prior Careers

Suggesting the importance of researching and building the literature, Tigchelaar, Vermunt, and Brouwer (2012) stated that

second-career teachers are experts in professional domains other than teaching, who bring previous experiences in work and life with them. Studying second career teachers' conceptions during their transition to teaching from this perspective can contribute to understanding their development in the profession. (p. 1164)

While teachers come from a variety of different professions, researchers have found variations in those careers. For example, Manuel and Hughes (2006) found in their study that the top five prior career fields were business, law, music, politics, and defense:

The majority were, like teaching, professions or careers that required relatively high levels of commitment, training and experience for success. A significant number were also occupations that relied on interpersonal, service, relational and creative qualities, all of which are considered to be central to teaching. (p. 14)

Other researchers such as that of Watt and Richardson (2007) in Sydney, Australia found that career-switching teachers came from science, entertainment, information technology, and business. Although research is emerging about the prior careers of these career-switching teachers, there is still a gap in how those specific careers affected their preparation and abilities to teach (Williams, 2010).

Motivations for Teaching

Studying how and why teachers pursue the teaching vocation is critical because these motivations can affect their performance in the classroom (Bullough & Knowles, 1990). Many societal influences play a pivotal role in whether a candidate feels comfortable going into the profession. Many do not enter the profession because the pay and social status are low for teachers (Watt & Richardson, 2008). Watt and Richardson (2007) used the Expectancy-value theory for defining motivation. Expectancy-value theory suggests that success expectancies and

task valuation are the significant determinants of motivation for academic choices. This theory led Watt and Richardson to draw recurring themes from the teacher education literature, emphasizing teaching career choices. By drawing recurring themes from the research on teacher motivation, Watt and Richardson (2007) developed a scale (FIT-Choice) to measure factors influencing the decision to teach for beginning teacher candidates. Some of the scale's constructs included time for family, job security, and job transferability, among others.

Watt and Richardson (2007) gave the inventory to teacher candidates in Australia. They found that those specific candidates had altruistic motivations for teaching. The candidates knew the education field would be hard work with little compensation. More surprisingly, most candidates were discouraged from entering the profession altogether based on the social climate and lack of compensation.

Researchers are still examining the reasons why people are switching careers into teaching. Crow, Levine, and Nager (1990) suggested:

First, the psychological literature on adult development emphasizes life-cycle changes that affect the way individuals perceive themselves and their work. For example, mid-life issues and concerns, such as personal identity, relationships, and generativity, have been identified as influencing career satisfaction or dissatisfaction and as potential causes of mid-life career change. (p. 199)

According to this research, there is not an apparent reason for career-switchers to enter the teaching profession.

Teacher Images

It is essential to know the popular media portrayals of education because many novice teachers may have a false teaching perception. Teachers' self-perception can be influenced by the

widespread cultural depictions of teachers (Swetnam, 1992). Moreover, as stated earlier in this chapter, self-efficacy is influenced by vicarious experiences and verbal persuasion.

When entering education, teachers struggle with what ideal teachers are and what their experiences as novice teachers will be (Cuddapah & Stanford, 2015). Cuddapah and Stanford defined teacher images as “ideas about what teachers are and what they do, whether idealistic, stereotypic, or realistic” (p. 29). Using a qualitative approach for inquiry, Cuddapah and Stanford asked their novice teacher respondents in an interview questions such as “What teachers did you admire and why?” and “How has being a classroom teacher impacted your perception of an ideal teacher?” (p. 29). The results of these types of questions were promising for helping understand the psyche of new teachers. Cuddapah and Stanford examined how teachers describe teachers' ideal images and how these images impact their behaviors in the classroom.

Studies show the public has a misconception and perception of what teachers do and how they act. Thirty years ago, different media distorted the realities of the teaching profession. For example, Swetnam (1992) suggested, “problems arise from the misrepresentation of who teaches, where they teach, how they teach, and what demands are placed on teachers” (p. 30). Swetnam found most teachers in television and movies do not accurately depict the realities of teaching or how teachers act in the classroom. Some movies portray teachers as clown teachers, whose characters are comic relief, others as negative influencers, especially regarding parental and community values. Most importantly, according to Swetnam:

The things that are not portrayed may be as harmful as those that are. Class sizes are minuscule. Very little classroom instruction is depicted, and paper grading, planning, meetings, and the extra duties that take up the large portion of the average forty-nine

hours per week that teachers work are rarely included, reinforcing the perception that teaching is an easy life. (p. 31)

Moreover, children's books can also depict teachers unrealistically. Sandefur and Moore (2004) state:

Children's picture storybooks are rife with contradictory representations of teachers and school. Some of those images are fairly accurate. Some of those images are quite disparate from reality. These representations become subsumed into the collective consciousness of a society and shape expectations and behaviors of both students and teachers. Teachers cannot effectuate positive change in their profession unless and until they are aware of the internal and external influences that define and shape the educational institution. (p. 41)

However, more recently, the misconception about teaching has changed. Surprisingly, younger people have a more positive image of the teaching profession even when the depictions of teaching are more realistic (Everton, et al., 2007).

The COVID-19 global pandemic was unprecedented because there were no touchstones for what online or hybrid, masked teaching looked like. There were no ideal images of pandemic teachers. The world was learning and understanding as the pandemic unfolded. It was not smooth, and teachers were met with simultaneous applause and critique (Reilly, 2020). For example, in the school district being studied in this paper, parents blamed teachers for students not being able to return to the buildings. These parents believed teachers wanted to stay home instead of coming into work. At the beginning of the pandemic, those same teachers were praised for their quick ingenuity and flexibility. For this research, it is important to note that the variations of self-efficacy were studied in the context of novices holding ideal images of teachers

but entering at a time when they could not envision exactly what their classroom, teaching, and student behaviors would be like.

Summary

More research is needed to understand novice teachers' specific challenges and variations in self-efficacy between first career and prior career teachers especially in the COVID-19 pandemic. The literature review highlighted the fundamental concepts of social cognitive theory, learning theory, self-efficacy, and the characteristics and challenges of new teachers and their choice to become teachers. These challenges and characteristics, however, may change due to the unprecedented circumstances teachers are facing because of the pandemic.

Self-efficacy among novice teachers, in general, is high unless a teacher does not have the necessary supports (Hoy & Spero, 2005). According to the research, novice teachers have high self-efficacy with lesson planning but need more attention in classroom management (Farkas et al., 2000; Tok & Tok, 2016). Also, career-switching novice teachers bring real-world experiences into the teaching profession. However, these teachers more frequently transfer to other schools than first-career teachers (Johnson & Birkeland, 2003). Novice teachers have an ideal image of what a teacher should be. This image can affect a teacher's self-efficacy depending on the individual's perception of a teacher, primarily if popular culture influences the image (Swetnam, 1992).

Researchers have focused mainly on the specific challenges of novice teachers. The topics in the literature focus on those challenges. However, little to no research was found that examines the variations of teacher self-efficacy between novice teachers who have had a previous career and those who have not. This study is an opportunity to fill in the knowledge gap

about how career-switching teachers perceive their abilities to teach as they come into the teaching profession. Chapter 3 is an overview of the research methodology for the study.

Chapter 3 METHODOLOGY

The purpose of this chapter is to introduce the research methodology for this quantitative study regarding the variations of teacher self-efficacy between first career and career-switching novice teachers. This approach allowed for a deeper understanding of novice teachers' self-perceived challenges and will provide a way to support them when they enter the profession. The research plan, including the methodology, population, validity, procedures, analysis method, and ethical concerns, are the primary components of this chapter.

Research Questions and Hypotheses

Five research questions and their corresponding hypotheses guided this research.

RQ1. How does teacher self-efficacy, which consists of student engagement, classroom management, and instructional strategies, vary between first and career-switching novice teachers in the COVID-19 Pandemic?

RQ1a: Which self-efficacy factors indicate greatest variance?

H1₀: There is no difference in the self-efficacy of first and career-switching novice teachers.

$$H1_0 : \mu^{\text{First-career}} = \mu^{\text{Career-switcher}}$$

H1_a: There is a difference in the self-efficacy of first and career-switching novice teachers.

$$H1_a : \mu^{\text{First-career}} \neq \mu^{\text{Career-switcher}}$$

RQ2: Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?

H1₀: There is no difference in the self-efficacy of teachers who have completed teacher preparation course work and those who did not.

H1₀ : $\mu^{\text{Prior preparation}} = \mu^{\text{No preparation}}$

H1a: There is a difference in the self-efficacy of teachers who have completed teacher preparation course work and those who did not.

H1a: $\mu^{\text{Prior preparation}} \neq \mu^{\text{No preparation}}$

RQ3: Do prior career fields have an impact on teacher self-efficacy?

H1₀: There is no difference in the self-efficacy of teachers who come to teaching from prior career fields.

H1₀ : $\mu^{\text{Prior career field}} = \mu^{\text{No prior career field}}$

H1a: There is a difference in the self-efficacy of teachers who come to teaching from prior career fields.

H1a: $\mu^{\text{Prior career field}} \neq \mu^{\text{No Prior career field}}$

RQ4: How do novice first-career and novice career-switching teachers vary in their perception of teacher-related tasks?

Research Design

This study was a quantitative study of novice first-career and career-switching teachers during the COVID-19 pandemic at the beginning of the 2020-21 school year (Maruyama & Ryan, 2014). The teacher's self-efficacy beliefs were measured by the Teachers' Sense of Self-Efficacy Scale (TSES) linked in the online survey clearinghouse, SurveyMonkey. This study was designed to examine teacher self-efficacy variations between novice teachers and gain a better understanding of the self-perceived weaknesses and strengths related to classroom management, student engagement, and instructional strategies. Free response questions accompanied the TSES. The free response items allowed the respondents to give details that a strictly quantitative survey cannot produce. For example, in the free response questions (Appendix A), respondents

stated what they feel about their self-efficacy regarding classroom management, instructional strategies, and student engagement both in a regular and virtual classroom setting, brought about by the COVID-19 pandemic. The teachers began the year teaching through video chats on the platform, Google Meet. They posted assignments through a learning management system called Schoology. I used the free response questions to examine specific trends that affect a teacher's self-efficacy related to teaching.

Pilot Study

The pilot study was given to twenty teachers who had never taken the TSES or the supplemental demographic questionnaire and free response questions. The purpose of the pilot study was to first experiment with the format of surveys in SurveyMonkey. Secondly, I wanted to make sure the results were easily exported to Microsoft Excel and SPSS. Lastly, I wanted feedback about the questions, timing, and flow of the survey. The survey was revised five times after receiving input from the pilot study informants. The pilot study's instrument was the same for the more extensive study, Tschannen-Moran, Woolfolk-Hoy, and Hoy's (1998) Teachers' Sense of Self-Efficacy Scale as well as supplemental demographic and qualitative free response questions.

I sent multiple drafts of my survey to 10 teachers for feedback on the free response questions' consistency and clarity. Moreover, I wanted to know if the survey itself was feasible for a novice teacher to complete in their first teaching year. There are professional development and other related tasks for novice teachers during the school year. I did not want a survey that would overwhelm or confuse my respondents.

As a result of the pilot study, I reworded free response questions as well as demographic questions. Some of my pilot study respondents suggested that some of the questions were

redundant, nebulous, and confusing. By tweaking the questions, I was able to rectify these problems and make the questions more cohesive to the information needed to complete my study.

Setting and Sampling

The survey data came from a school district with over 5,000 teachers and 80,000 students. This mid-Atlantic school district has a 95 percent graduation rate. This school district allows lateral-entry teachers to reach certification. The lateral-entry process requires novice teachers to take classes and receive certification within three years of their employment date. The novice teachers hired by the school district had a mixture of provisional and non-provisional certificates. The novice teachers, who received the survey, taught virtually at the beginning of the 2020-21 school year.

Study Population and Demographics

The study population was novice teachers in a mid-Atlantic school district. I sampled 198 novice teachers who have never taught in the classroom. After I distributed the survey, 110 teachers responded. Sixty-eight of those surveys were usable. Surveys that did not have complete demographic or Teachers' Sense of Self-Efficacy Scale responses were unusable. All grade levels and subject teachers across the district were included in the study. Novice teachers were determined by the school district's office of mentoring and coaching. The survey was distributed to those teachers only. This study's sample was purposive because the population is the primary focus of the research questions (Maruyama & Ryan, 2014).

Demographic data on all 68 respondents are listed in this section. Among the 68 novice teachers, 52 (76.5%) were female, 11 male (16.2%), one other (1.5%), and four preferred not to answer (5.9%). The mean age of the respondents was 29. The respondents were also asked about

their race. Out of the respondents, one (1.5%) identified as American Indian or Alaskan Native, seven (10.3%) identified as Asian or Asian American, three (4.4%) identified as Black or African American, three (4.4%) identified as Hispanic or Latino, 50 (73.5%) identified as White or Caucasian, four (5.9%) preferred not to answer (Appendix B).

Out of the 68 respondents, 33 (48.5%) teachers responded that they had a previous career before teaching, 35 (51.5%) teachers responded that they did not have a previous career. Out of the 32 respondents who indicated that they had a previous career, 13 (19.1%) came from business, 11 (16.2%) from an educated-related career (such as a day-care employee or teaching assistant), two (2.9%) from government, four (5.9%) from the hospitality industry, one (1.5%) from social work, one (1.5%) from the military, and one (1.5%) from science/engineering. The remaining 35 (51.5%) respondents did not have a prior career (Appendix B).

Forty-seven (69.1%) teachers said that teaching was their first career choice and 21 (30.9%) teachers said that teaching was not their first career choice. When asked if those same teachers had any prior teaching preparation, 62 (91.2%) answered yes and 6 (8.8%) no.

To examine the prior teaching experiences of the novice teachers and in recognition of the COVID-19 pandemic's impact on public school education across the United States, the survey asked the format of their teaching preparation and student teaching format, whether virtual or in-person. Seven (10.3%) teachers did not complete a teacher preparation program, one (1.5%) completed online, 28 (41.2%) in-person only, and 32 (47.1%) completed a program in a mix of online and in-person. Respondents were also asked about their student teaching preparation and experience. Thirty-six (52.9%) student taught in-person, three (4.4%) taught online, 11 (16.2%) never student taught, and 18 (26.5%) student taught both online and in-person (Appendix B).

Because this study focused on prior career experiences, the survey asked the respondents to disclose their highest level of education, their undergraduate major, and their current teaching assignment. This information helped narrow the independent variables. Thirty-five (51.5%) entered the teaching profession with a bachelor's degree and 33 (48.5%) with a master's degree. The breakdown of majors reported are as follows: 28 (41.2%) in Education, eight (11.8%) in Social Sciences, eight (11.8%) in History/Political Science/Government, eight (11.8%) had undergraduate degrees in Fine Arts, five (7.4%) in Business, four (5.9%) in Science, three (4.4%) in Mathematics/Engineering, two (2.9%) in Pre-Professional, and two (2.9%) in English.

The respondents were all teaching virtually at the beginning of the 2020-21 school year. Teaching virtually means they had the option to teach from home or inside their worksite. Nineteen (27.9%) were teaching at the elementary level, 14 (20.6%) at the middle school level, and 23 (33.8%) at the high school level. Ten (14.7%) were teaching special education, one (1.5%) was a guidance counselor, and one (1.5%) was teaching English language learners (Appendix B).

Data Collection

I collected surveys from 110 teachers out of 198 eligible teachers hired by a large mid-Atlantic suburban school district in the United States. Sixty-eight out of the 110 surveys were usable. Table 1.1 shows the instrument and method to answer each research question. All data were accepted from novice teachers regardless of subject or grade level taught. I sent an email on three occasions inviting teachers to participate (Appendix C). I used SurveyMonkey to gather both the objective data and free responses. SurveyMonkey did not collect any identifying information from the respondents. After the data collection period was over, the data were

imported into IBM's SPSS version 27 Statistics software package for data analysis. I uploaded and sorted the free response answers into a Microsoft Excel spreadsheet for analysis.

Table 1.1 Study

Alignment Matrix

Research Question	Variable	Instrument / Interview Question	Units of Measure	Analysis Procedure
Demographics to see variance between different groups of novice teachers	Age, Gender, Education, Career-Status	Survey	Nominal, Ordinal, Continuous	T-Test, Mann-Whitney U Test
RQ1. How does teacher self-efficacy, which consists of student engagement, classroom management, and instructional strategies, vary between first and career-switching novice teachers in the COVID-19 Pandemic?	Student Engagement, Classroom Management, Instructional Variables (Self-efficacy)	Survey: TSES: Student Engagement: Items 2, 3, 4, 11 Classroom Management: Items 5, 9, 10, 12 Instructional Strategies: Items 1, 6, 7, 8	Continuous	T-Test, Mann-Whitney U Test
RQ2. Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?	Student Engagement, Classroom Management, Instructional Variables (Self-efficacy)	Survey: TSES: Student Engagement: Items 2, 3, 4, 11 Classroom Management: Items 5, 9, 10, 12 Instructional Strategies: Items 1, 6, 7, 8	Continuous	T-Test, Mann-Whitney U Test
RQ3. Do prior career fields have an impact on teacher self-efficacy?	Student Engagement, Classroom Management, Instructional Variables (Self-efficacy)	Supplemental Free Response	Nominal	One-way ANOVA
RQ4: How do novice first-career and novice career-switching teachers vary in their perception of teacher-related tasks?	Teacher perception	Supplemental Free Response	Free Response	Qualitative-Thematic coding

Response Rate

There were 198 teachers who were invited by email to participate in the study. Out of the 198 teachers, 110 teachers submitted a survey. When the data were entered into SPSS (version 27), 42 surveys were discarded with a 46.3% exclusion rate. These surveys were discarded because they had incomplete answers for the Teachers' Sense of Self-Efficacy Scale (TSES) section of the survey. This means 68 of the submitted surveys were usable. Having 68 respondents is enough to run a *t*-test and a one-way ANOVA for the study (Pallant, 2010).

Procedures

Hood College and the school district gave IRB approval for this study (IRB Application in Appendix D and approval in Appendix E). After approval, I asked incoming novice teachers via email to complete a survey to assess self-efficacy and gather demographic data (Survey in Appendix D). The Likert survey is the Teacher's Sense of Self-Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001) (Appendix A). Included in the survey were free response questions for teachers to elaborate on their teacher self-efficacy.

The survey provided demographic data to create an aggregate describing the group being studied, such as age, gender, prior education, prior career experience, and teacher program completion (Appendix E). Describing the group gave the quantitative study clear independent variables and qualitative research potential transferability.

At the start of the fall quarter, on September 11, 2020, I sent out a SurveyMonkey link via email to all novice first-year teachers in the school district. I sent out two reminder emails on September 21, 2020 and October 19, 2020 (Appendix F). I closed the survey October 30, 2020.

Consent

Before the respondent began the survey, they had an opportunity to read the consent form in the invitation email (Appendix C). Respondents provided consent by completing the survey; this is in-line with how the consent is currently given within the district being studied.

Risks and Debriefing

There were no physical, psychological, or social risks of participating in the study. The school district being studied did not have a record of who participated. Both Hood College's IRB and the school district gave approval for the study.

Privacy and Storage of Data

Data gathered for this investigation was kept confidential. No names or email addresses were collected on the survey. Access to the surveys and data being collected was limited to the PI and his doctoral committee. Further, to protect confidentiality, respondents were told that no respondent names would be collected or stored before or after the study or given to the school district. All physical data were kept in a locked room and all electronic data on a secured personal computer. All data were destroyed after analysis. SurveyMonkey did not store any personal information, including respondent IP address information. The IP logging feature was disabled. The email sent to the teachers had a copy of informed consent (Appendix D) and my contact information. Respondents could withdraw from the study at any time. Once the respondent agreed and started the survey, they were asked to give demographic information. No identifying personal information were asked.

Measures

I measured self-efficacy (as it relates to elements of teaching) with the Teachers' Sense of Self-Efficacy scale, also referred to as the Ohio State Teacher Self-Efficacy Scale developed by

Tschannen-Moran, Woolfolk-Hoy, and Hoy in 2001. This scale measures self-efficacy related to three subsections: student engagement, instructional strategies, and classroom management (Tschannen-Moran & Hoy, 2001).

There are two versions of the TSES, a 12-item (short form) and a 24-item (long form). This current study utilized the short form. Both surveys have a nine-point scale offering the respondents to choose “1-2 Nothing,” “3-4 Very Little,” “5-Some influence,” “7-8-Quite a bit,” and “9-A Great Deal.” Teacher self-efficacy is determined by a total score. The three factors in the scale can be calculated separately for a self-efficacy score for those subscale sections.

As Tschannen-Moran et al. (1998) reported, the total TSES reliability Cronbach’s alpha is a .94 and the short form reliability is a .90. Tschannen-Moran et al. also ran a factor analysis for each subscale for both the short and long-form (see Table 2.1). Because I also used supplemental questions, the 12-item short-form helps with respondent fatigue. For the student engagement factor, the reliability scores were .87 and .81. The items for this subscale for the short form are 2, 3, 4, and 11. The reliability alpha scores for classroom management were .90 and .96 matching short form questions 1, 6, 7, and 8. The reliability alpha scores for instructional strategies were .91 and .86. The corresponding short form questions are 5, 9, 10, and 12. For this study, I chose to use the short form because the alpha scores were comparable to the 24-item long form. Sample questions from the short form from each TSES subscale include:

Efficacy in Student Engagement: 2. How much can you do to motivate students who show low interest in school work?

Efficacy in Classroom Management: 6. How much can you do to get children to follow classroom rules?

Efficacy in Instruction Strategies: 10. To what extent can you provide an alternative explanation or example when students are confused?

Table 2.1

Construct Validity for TSES

	M	M	SD	SD	Alpha	Alpha
	Long	Short	Long	Short	Long	Short
TSES	7.1	7.1	.94	.98	.94	.90
Student Engagement	7.3	7.2	1.1	1.2	.87	.81
Instructional Strategies	7.3	7.3	1.1	1.2	.91	.86
Classroom Management	6.7	6.7	1.1	1.2	.90	.86

The free response supplemental questions address the top subscales, but instead of choosing a Likert response, respondents can explain their confidence or challenges in their own words. Proceeding the TSES, respondents could leave optional comments.

Statistics

For the objective portion of my study, I chose to use a *t*-test to compare two categorical independent variables, novice first-career and novice career-switcher teachers, with a scale variable, the Teachers' Sense of Self-Efficacy (TSES) scores. It is acceptable to use t-tests when two categorical variables are being compared with a continuous variable (Pallant, 2010) I also used a non-parametric test, Mann-Whitney U test, to examine whether the two groups are likely to derive from the same population (Pallant, 2010). I used one-way ANOVA test to see whether career-fields, which had multiple categorical categories, had a relationship with a continuous dependent variable, which was the TSES scores.

Validity Threats

I investigated three validity threats in the research: internal validity, external validity, and construct validity.

Internal Validity

Internal validity refers to the confidence the researcher has that a cause-and-effect relationship in the study cannot be explained by other factors. The study addressed spuriousness by adding control variables such as age, race, and gender.

External Validity

External validity refers to the researcher's ability to generalize the findings to other settings, people, and measures. The study had a purposive sample from a large school district, so consequently, any statements can only be made about that local district.

Construct Validity

Construct validity refers to the evaluation of the tools used in the study. The tools should accurately measure what is intended. The construct validity of the study was high. The psychometric study and previous studies show the TSES is a valid and reliable measurement tool. The Cronbach's alpha scores for each construct scored above a .8.

Description of the Variables

There were two types of variables examined in this study: dependent variables and independent variables. The independent variable is the variable the researcher manipulates and influences the dependent variable. The independent variable is the variable the experimenter changes; it is assumed the independent variable will have a direct effect on the dependent variable.

Dependent Variables

The dependent variables were the self-reported efficacy scores for the subscales (Classroom management, Instructional Strategies, and Student Engagement) of the TSES 12-item short form as well as a total score for teacher self-efficacy. These variables were triangulated with free response submissions.

Independent Variables

In the beginning demographic section of the survey, I asked the following about the respondent: age, gender, race, prior career status, student teaching experience, teacher preparation, teaching content area, prior career (if applicable), and college major and minor. Asking demographic question allowed for seeing if any other factors contributed to variance in teacher self-efficacy.

Summary

The study consisted of a survey sent via email to novice first-career and career-switcher novice teachers. The survey used the Teachers' Sense of Self-Efficacy scale supplemented with demographic and free response questions. Participation was voluntary, with no identifying questions asked, such as email addresses, names, or work locations. The dependent variables were analyzed with the independent variables with the tools from SurveyMonkey as well as the statistical software SPSS (version 27).

Chapter 4: RESULTS

The purpose of this study was to examine the variance of teacher self-efficacy between novice first-career teachers and novice career-switcher teachers. To examine their teacher self-efficacy, I sent out a three-section survey. The first section asked the respondents demographic questions to obtain independent and control variables. The second section asked each respondent to comment on their self-efficacy regarding student engagement, classroom management, and instructional strategies both in a normal and virtual classroom environment. Having two sections in the free response question was critical because every teacher started the 2020-2021 teaching online because of the COVID-19 pandemic. The last section asked respondents to answer a 12-Likert-item scale, the Teachers' Sense of Self-Efficacy Scale (TSES).

This chapter is divided into four distinct sections: research questions and demographics, objective results, free response results, and summary. Quantitative data is paired with each research question and supplemental results that support each research question are included. In the chapter summary and Chapter 5. Alignment of the quantitative and qualitative results will be discussed.

Data Analysis

This chapter contains details about the descriptive statistics, frequencies, and analysis used in this study. Independent sample *t*-tests and One-way ANOVA tests were used to analyze data in SPSS. In addition, an independent-samples Mann-Whitney U Test was executed to examine the distribution of total self-efficacy scores among teachers who were first career or career-switching. A Mann-Whitney U Test is a non-parametric alternative to *t*-tests. This test compares the median score instead of the mean (McKnight & Najab, 2010).

To run the tests through SPSS (version 27), the independent and dependent variables were coded numerically. For example, a novice career-teacher was coded as a 1 and a novice career-switcher was coded a 2. The open response answers for previous career, undergraduate major, and current teaching assignment were grouped into categories then assigned a numerical code (full list in Appendix G). Because respondents listed their exact career, the list needed to be condensed into categories, which made it easier to analyze. For example, project management and office manager were grouped into the business/accounting category.

Research Question 1 and 1a

Research Question 1 states: How does teacher self-efficacy, which consists of student engagement, classroom management, and instructional strategies, vary between first and career-switching novice teachers in the COVID-19 pandemic?

Research Question 1 hypotheses state:

H1₀: There is no difference in the self-efficacy of first and career-switching novice teachers.

$$H1_0 : \mu^{\text{First-career}} = \mu^{\text{Career-switcher}}$$

H1_a: There is a difference in the self-efficacy of first and career-switching novice teachers.

$$H1_a : \mu^{\text{First-career}} \neq \mu^{\text{Career-switcher}}$$

The career-switcher novice teachers (N = 33), (M = 80.24, SD = 10.12) did not have a significantly higher TSES score than those teachers who did not have a first career (N = 35), (M = 84.94, SD = 10.93), $t(66) = -1.84, p = .07 > .05, d = .21$. By comparison, novice teachers without a first career had a higher overall average score than career-switching novice teachers. Table 3.1 shows the mean scores between these two groups. To test the hypothesis that there is no difference in self-efficacy scores between career-switcher novice teachers and first-career novice teachers, an independent samples *t*-test was performed.

Table 3.1*Mean Scores of Novice Career-Switcher and First-Career Teachers*

	Career-Switcher	N	Mean	Std. Deviation	Std. Error Mean
TSES Totals	Yes	33	80.2424	10.12123	1.76188
	No	35	84.9429	10.93280	1.84798

As seen in Table 3.2, equal variance was assumed because the p value was greater than .05. The effect size was not applicable because a statistical significance was not found. The assumption of homogeneity was tested and satisfied with Levene's *F* test, $F(66) = .21, p = .071$. Levene's test for equality of variances was assumed for both career-switching novice teachers and first-career novice teachers. There is not a statistically significant difference in total TSES scores between these two groups. Because of this result, the null hypothesis was not rejected.

Table 3.2*Independent Samples T-Test. TSES Total Score – Career-Switcher Group Statistics*

	Levene's Test for Equality of Variances		t-test for Equality of Means			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
TSES Totals Equal variances not assumed	.211	.647	-1.837	66	.071	-4.70043
			-1.841	65.980	.070	-4.70043

Research Question 1a states: Which self-efficacy factor indicate greatest variance?

The three factors in the TSES are Classroom Management, Instructional Strategies, and Student Engagement. Tables 4.1 and 4.2 show the means for each factor for both career-switching novice teachers and first-career novice teachers.

- Career-switcher novice teachers had a lower self-efficacy score in Classroom Management ($N = 33$), ($M = 26.39$, $SD = 3.53$) than first-career novice teachers ($N = 35$), ($M = 27.48$, $SD = 4.40$), $t(66) = -1.12$, $p = .26 > .05$, $d = .72$.
- Career-switcher novice teachers had a lower self-efficacy score in Instructional Strategies ($N = 33$), ($M = 26.93$, $SD = 4.51$) than first-career novice teachers ($N = 35$), ($M = 28.51$, $SD = 4.48$), $t(66) = -1.44$, $p = .14 > .05$, $d = .21$.
- Career-switcher novice teachers had a lower self-efficacy score in Student Engagement ($N = 33$), ($M = 26.90$, $SD = 4.41$) than first-career novice teachers ($N = 35$), ($M = 28.94$, $SD = 3.78$), $t(66) = -2.04$, $p = .04 < .05$, $d = .93$.

An independent samples t -test was performed to see the variance in each group for each TSES factor. There is a statistically significant difference between career-switcher novice teachers and first-career novice teachers. Because there is a significant difference, the assumption of homogeneity was tested and satisfied with Levene's F test, $F(66) = .33$, $p = .931$. Levene's test for equality of variances was assumed for both career-switching novice teachers and first-career novice teachers.

Table 4.1*TSES Factor Mean Scores Between Novice Career-Switcher and First-Career Teachers*

	Previous Career	N	Mean	Std. Deviation	Std. Error Mean
Total Score for Classroom Management	Yes	33	26.3939	3.53500	.61536
	No	35	27.4857	4.40168	.74402
Total Score for Instructional Strategies	Yes	33	26.9394	4.51345	.78569
	No	35	28.5143	4.48770	.75856
Total Score for Student Engagement	Yes	33	26.9091	4.41137	.76792
	No	35	28.9429	3.78808	.64030

Table 4.2*Independent T-Test for TSES Factors*

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Total Score for Classroom Management	Equal variances assumed	.727	.397	-1.123	66	.265
	Equal variances not assumed			-1.131	64.405	.262
Total Score for Instructional Strategies	Equal variances assumed	.021	.885	-1.442	66	.154
	Equal variances not assumed			-1.442	65.718	.154
Total Score for Student Engagement	Equal variances assumed	.931	.338	-2.043	66	.045
	Equal variances not assumed			-2.034	63.208	.046

Research Question 2

Research Question 2 states: Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?

Research Question 2 hypotheses state:

H₁₀: There is no difference in the self-efficacy of teachers with teacher preparation course work than those who have not.

H₁₀ : $\mu^{\text{Prior preparation}} = \mu^{\text{No preparation}}$

H1a: There is a difference in the self-efficacy of teachers with teacher preparation course work than those who have not.

$$H1a: \mu^{\text{Prior preparation}} \neq \mu^{\text{No preparation}}$$

The novice teachers with prior teaching preparation (N = 62), (M = 82.54, SD = 10.42) did not have a significantly higher TSES score than those teachers who did not have prior teacher preparation (N = 6), (M = 83.83, SD = 14.66), $t(66) = -.278, p = .78 > .05, d = 1.37$. By comparison, novice teachers with no prior teaching preparation had a higher overall average score than novice teachers with no prior preparation. Table 5.1 shows the mean scores between these two groups. To test the hypothesis that there is no difference in self-efficacy scores between novice teachers with prior teaching preparation and novice teachers with no prior preparation, an independent samples *t*-test was performed.

Table 5.1

Mean Scores of Novice Teachers With and Without Prior Teacher Preparation

	Prior Teaching Preparation	N	Mean	Std. Deviation
TSES Totals	Yes	62	82.5484	10.42802
	No	6	83.8333	14.66174

As seen in Table 5.2, equal variance was assumed because the *p* value was greater than .05. The effect size was not applicable because a statistical significance was not found. The assumption of homogeneity was tested and satisfied with Levene's *F* test, $F(66) = .24, p = .78$. Levene's test for equality of variances was assumed for both career-switching novice teachers and first-career novice teachers. There is not a statistically significant difference in total TSES scores between these two groups. Because of this result, the null hypothesis was not rejected.

Table 5.2

Independent T-Test for Prior Teaching Experience

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
TSES Totals	Equal variances assumed	1.375	.245	-278	66	.782	-1.28495
	Equal variances not assumed			-210	5.500	.842	-1.28495

Research Question 3

Research Question 3 states: Do prior career fields have an impact on teacher self-efficacy?

Research Question 3 hypotheses state:

H₀: There is no difference between the means.

$$H_0: \mu^{\text{No prior career}} = \mu^{\text{Business}} = \mu^{\text{Education related}} = \mu^{\text{Government}} = \mu^{\text{Hospitality}} = \mu^{\text{Social work}} = \mu^{\text{Military}} = \mu^{\text{Science/Engineering}}$$

H₁: At least one of the career field means is different.

$$H_1: \mu^{\text{No prior career}} \neq \mu^{\text{Business}} \neq \mu^{\text{Education related}} \neq \mu^{\text{Government}} \neq \mu^{\text{Hospitality}} \neq \mu^{\text{Social work}} \neq \mu^{\text{Military}} \neq \mu^{\text{Science/Engineering}}$$

A one-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of prior career field on teacher self-efficacy using the TSES. Respondents were divided into five groups according to their prior career fields: No Prior Career (N = 35), Business (N = 13), Education Related (N = 11), Government (N = 2), Hospitality (N = 4), Social Work (N = 1),

Military (N = 1), and Science/Engineering (N = 1). Table 10 displays the mean scores for each group. There was not a significant difference at the $p < .05$ level in total TSES scores, $F(7, 60) = 1.29, p = .27$. Although the ANOVA test did not reach statistical significance, the effect size was large. The effect size, calculated using eta squared, was .13. Post-hoc tests were not conducted due to more than one group having fewer than two cases. Table 6.1 shows the mean scores for the prior career field categories. Table 6.2 shows the ANOVA scores for prior career fields.

Table 6.1

TSES Mean Scores for Prior Career Fields

Prior Career Field	N	Mean	Std. Deviation
No Prior Career	35	84.9429	10.93280
Business	13	79.9231	9.30467
Education Related	11	84.0000	11.90798
Government	2	68.5000	.70711
Hospitality	4	74.5000	7.85281
Social Work	1	86.0000	
Military	1	78.0000	
Science / Engineering	1	86.0000	
Total	68	82.6618	10.73231

Table 6.2

ANOVA Results for Prior Career Fields

Total TSES Score	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1010.912	7	144.416	1.292	.270
Within Groups	6706.309	60	111.772		
Total	7717.221	67			

Free Response Question Responses

In this section of the chapter, I will present the results from the free response questions from the survey. The results are in six sections: first-career themes in an in-person environment and virtual environment, first-career general concerns, career-switcher themes in an in-person environment and virtual environment, career-switcher general concerns, and shared-themes between novice first-career and novice career-switcher teachers. Every respondent is given a pseudonym to protect their identity.

The themes came from questions designed for the respondents to elaborate about their teacher self-efficacy in student engagement, classroom management, and instructional strategies. Each question can be found with the Teachers' Sense of Self-Efficacy in Appendix D. Moreover, the respondents could explain their feelings in an in-person classroom and, due to the COVID-19 pandemic affecting the 2020-21 school calendar year, a virtual environment. The questions were

1. In an in-person classroom setting, what are you most confident about in regard to Student Engagement, Classroom Management, and Instructional Strategies?
2. In an in-person classroom setting, what are you most concerned about in regard to Student Engagement, Classroom Management, and Instructional Strategies?

3. In a virtual/online setting, what are you most confident about in regard to Student Engagement, Classroom Management, and Instructional Strategies?
4. In a virtual/online classroom setting, what are you most concerned about in regard to Student Engagement, Classroom Management, and Instructional Strategies?
5. What are you most concerned about starting your teaching career?

These questions asked respondents to describe their strengths in three areas of teacher self-efficacy; student engagement, classroom management, and instructional strategies are the three factors used in the Teachers' Sense of Self-Efficacy Scale. The responses varied between single words to full paragraphs. I used a mixture of different coding methods, specifically through *a priori* analysis from prior research about novice teachers (Cuddapah & Stanford, 2015; Haggard et al., 2006; Lerner & Zittleman, 2002) and *in vivo* codes, in which themes emerged directly from the responses.

It was important to add free response questions because the objective data did not isolate specific instances where teacher self-efficacy could vary unless the results were grouped into three factors. The objective data also did not separate feelings on teacher related tasks due to the current pandemic.

Sample

The free responses accompanied the objective data retrieved from 68 surveys. Appendix F breaks down the respondents by gender, race, career-status, and prior teaching preparation. The school district studied identified these teachers as first-year novice teachers. Each respondent started the 2020-21 academic school calendar in a virtual classroom environment.

Themes for Novice First-Career Teachers in an In-person Classroom Environment

The following themes were created by analyzing the responses on survey questions 16 and 17 from novice first-career teachers. These two questions asked for teachers to explain their confidence and worries about student engagement, classroom management, and instructional strategies in an in-person classroom environment only.

Engaging Students With Creativity

In an in-person classroom environment, 28 novice first-career teachers responded that they were most confident in creating engaging activities for their students. These teachers felt that students need lessons and activities that allow for teachers and students to interact. Monica, a special education teacher, shared that *“I am high energy and like to keep my students engaged by having them do a variety of activities.”* Janet, a high school English teacher, also replied that *“I plan creative activities to keep students engaged.”* Teachers also expressed their desire for students to be excited about learning.

Positive Classroom Environment

Novice first-career teachers expressed confidence in building and maintaining a positive classroom environment, where students feel comfortable and where they feel they can have a relationship with their teacher. Jennifer, a special education teacher, shared *“I am still working on this. But I think I am more confident in that I bond with my students and make the classroom feel like a relaxed environment.”* Jennifer’s response showcased the willingness of first-career teachers to make their classrooms welcoming. Three teachers responded that having a strong rapport helps build positive classroom environments.

Student Boredom

In my experience working with novice teachers entering the profession, especially from university programs, I have found they are concerned about lackluster lessons. The survey responses affirmed my experience about novice first-career teachers branching out to find trending lessons for their subjects. Betty, a government teacher, expressed that her biggest concern is of students becoming bored. Likewise, Sara, a middle school English teacher, is confident she can plan diverse activities for her students.

Classroom Structure

Overwhelmingly, novice first-career teachers, discussing an in-person classroom environment, are concerned about keeping control and structuring their classes effectively and efficiently. First-career teachers noted that having rules and procedures is important for them. Jonathan, a geometry teacher, worries that he will not be able to transition between parts of the lessons to keep student attention and help manage the class. These teachers feel that effective classroom management promotes student engagement. Rebecca, an orchestra teacher, responded “*being consistent and effectively managing the classroom without losing student engagement.*”

Conveying Lessons

The theme of conveying lessons was prevalent with novice first-career teachers. They felt that, in an in-person classroom environment, they did not have the tools or time to prepare lessons. In my personal experience, novice teachers feel overwhelmed at the beginning of the year because they are not used to the work beyond creating lessons. This work sometimes hinders successful lessons, which can derail many teachers. Timothy, a middle school English teacher, worried that his workload prevents him from differentiating his instruction:

Most of my college background is in high school English, so I don't feel comfortable with the content at times. I am lecturing far too much, but I don't know what else to do in order to get through enough content to satisfy requirements. The workload is overwhelming, to say the least, which leaves me exhausted and unable to differentiate instruction to the extent that I should. I also have no time to plan: my planning periods and evenings are mostly spent on email. I am not adequately prepared for my lesson on a regular basis, which makes me dependent upon the materials I receive from the county. Students are also overwhelmed with the pace and volume of materials. I have received many emails about this.

Some responses were less detailed but nevertheless expressed worry about lacking differentiation and lesson variety.

Themes for First-Career Teachers in a Virtual Learning Environment

The following themes came from responses to survey questions 18 and 19 by novice first-career teachers. The questions ask novice teachers to explain their confidence and worries about student engagement, classroom management, and instructional strategies in a virtual environment.

Positive Online Atmosphere

Novice first-career teachers expressed their confidence in creating relationships with students to ensure a safe learning environment. These responses were surprising to me because teaching online is a paradigm many teachers find difficult, especially when student engagement is critical. However, the novice first-career teachers responded that they were excited about creating a positive online space and building relationships with their students virtually. Theresa, an elementary school teacher, responded that she wanted to implement Positive Behavioral

Supports and Interventions (PBIS) in her online classrooms. PBIS is a holistic approach that looks at all aspects of factors that impact a child's behavior. PBIS can be used to address both minor and severe behavioral problems.

State Content Standards

Although instruction is happening in a virtual environment, state standards of learning still exist and must be followed. This requirement can be daunting because instruction looks different. Novice first-career teachers in this study responded that they feel comfortable meeting goals regarding standards and being on track for pacing. For instance, Lisa, an elementary school teacher, stated that she was confident in meeting all her goals regarding her state's prescribed curriculum.

Student Presence During Virtual Instruction

In a virtual classroom, students may not have their cameras on during instruction. Because the students do not have their cameras on, teachers are unaware if the student is present or not at the computer. Responses from novice first-career teachers illustrate this concern. For example, James, an elementary school teacher, replied that he was worried about "*lack of engagement from students I can't see.*"

Differentiating Instruction in the Virtual Classroom

Novice first-career teachers responded that they are concerned about differentiating their instruction and using best practices to gauge student learning. Interestingly, none of the responses referenced technology concerns. Larry, a middle school English teacher, worried about following up with students after lessons. He responded:

There are so many things, really. I think the main issue for me is that I don't have the time to think through things thoroughly. As an adjacent point, I worry about the fact

there is no way for me to follow up with all the students I perceive to not be living up to their potential. I am just trying to get through each day and that makes me much less effective than I might otherwise be.

Janet, a middle school English teacher, asked herself “*Are they understanding the topics? How can I get them to learn and better explain if I am not physically there with them?*” Creating lessons where students talk online more than a teacher was a common response.

General Concerns of Novice First-Career Teachers

Question 20 of the survey asked teachers what they are most concerned about starting a teaching career. This question did not specify whether it related to any of the teacher self-efficacy factors. The teachers could write about anything they desired. Moreover, this question gave the teachers an opportunity to comment on other challenges caused by the COVID-19 pandemic.

Work-life Balance and Support

In my experience, teachers with various backgrounds worry about their work-life balance and whether they can sustain a long-term career in education. This worry, especially for novice teachers, was exacerbated by the changes due to the COVID-19 pandemic. Novice first-career teachers replied that this theme resonated with them. Jerry, an algebra teacher, stated his concerns about the pressure he is under and how he does not have the time to do his job effectively:

I am just very concerned that I have no work-life balance right now, and that is not only hurting me but also my students. I expected this to be a difficult year, but it is only possible to be in crisis mode for so long. The materials provided by the district could be quite useful, but we are not proceeding on anything like the timeframe envisioned in

those materials. So, my CLT is largely creating its own materials from scratch. This leaves me in the position of not being able to plan far into the future or anticipate what we are going to cover before I see the materials. I generally feel a bit like a substitute teacher who has a second job as an administrative assistant: I spend a lot of my time answering emails and troubleshooting tech problems, then I teach with little preparation. I also worry deeply about my physical and mental health. I'm not sure what can be done at a county-wide level to help, as even experienced teachers are having a very difficult time. But, I feel something has to give if we are to sustain the current arrangement with distance learning goals: goals and expectations need to change, more supports need to be put in place, etc.

Jerry's response was the culmination of how the novice first-career teachers were feeling according to the survey submissions. Those teachers feel unsupported as they drown in work as they experience a paradigm shift in instruction due to the pandemic. Jenna, an elementary school teacher, echoed Jerry. She responded "*COVID has ramped up my job.*"

Themes for Novice Career-Switcher Teachers in an In-Person Classroom Environment

The following themes were created by analyzing the responses on survey questions 16 and 17 from novice career-switcher teachers. These two questions asked for teachers to explain their confidence and worries about student engagement, classroom management, and instructional strategies in an in-person classroom environment only.

Rapport

As a teaching mentor, I believe developing a strong rapport with students is vital for success in education. Surprisingly, according to the responses in the survey, novice career-switcher teachers feel strongly that they can develop rapport with students and support them

quickly. Robert, an elementary school special education teacher and former consultant in international affairs, felt especially confident because he had some experience as a substitute teacher:

I am confident that I am able to engage students and address learning difficulties they may have. I know this as I worked as a substitute teacher for four months, three months of which was spent in a SPED-Ed room. It was very insightful and amazing to help our students and learn from them.

Madeline, a high school art teacher and former display coordinator for a major clothing store, is confident that she can relate to her students because she “*plays video games, loves memes, and online humor.*”

Gaining Respect

Five novice first-career teachers responded that they feel like they can gain the respect of their students. No novice first-career teacher mentioned the words respect in their responses. Some teachers also stated they had training to have students create and buy into their own rules to uphold respect in the classroom. Only novice career-switcher teachers above the age of 30 mentioned respect in their responses.

Student Circumstances

Novice career-switcher teachers worry that student shyness, living situations, and intellectual level will affect their abilities to engage with their students. This theme is important for understanding novice teachers because all students come to school with unique circumstances. Tony, a middle school math teacher and former businessman, responded that he worries about “*outside factors that I cannot address (food, safety, housing, security, etc.).*” Robert, a special education teacher, responded “*helping students who are disinterested or*

suffering from exterior negativity to be engaged, while not losing the attention of the rest of my classroom or having to interrupt my instructing or the lesson plan.”

Inattentive Students

In five responses, novice career-switchers noted that they feared behavioral issues would cause major disruptions in their class. Moreover, teachers responded that cell phones, specifically, would be a major cause for concern. Madeline, a high school art teacher and former display coordinator, responded that “*Cellphones are a HUGE problem and distraction for the students.*” Another teacher, Cindy, an algebra and geometry teacher and former tutor, likewise responded that cell phones are an example of an excessive disruptor.

Severe Behavioral Problems

In addition to student engagement and attentiveness, novice career-switcher teachers are worried about severe behavioral problems that may arise. The examples of severe behavioral problems that novice career-switchers noted included physical violence, students who lose control, chronic inattentive students, disrespectful students, and any behavior that is “over-the-top.” Two of the teachers stated they feel unequipped to handle these situations.

Pedagogical Knowledge and Lingo

In education, there is specific pedagogical lingo that is vast and keeps changing. Novice career-switchers, who are new to the profession, may not understand these terms and must learn them quickly. Some are also unaware of current teaching trends that the district has adopted and promoted. Stewart, a special education teacher and former business executive, responded that he is concerned about “*terminology, lack of experience, and different instructional methods for different age groups.*” Irene, a business education teacher and former business marketer, responded: “*honestly, being torn between different teaching styles and personalities with the*

same cohort.” Julia, a high school theater teacher and former actress, responded: *“since I am new, I am always concerned if I am using the right approach.”*

Themes for Novice Career-Switcher Teachers in a Virtual Classroom Environment

The themes regarding teaching in a virtual environment are important because novice career-switcher teachers began teaching online without having the opportunity to enter their classrooms. Because of the COVID-19 pandemic, the school district opened the school year with all distance learning. These responses show immediate concerns and feelings about confidence.

Controlling Online Behaviors

In my experience, classroom management online is a different skill set than classroom management in an in-person classroom environment. Seven novice career-switchers responded that they felt confident in maintaining classroom procedures and structures in a virtual setting. Some indicated that they could use online features to discipline students. Gene, an elementary school special education teacher, and former software engineer, stated that if he has an issue, he *“can reengage the students by making the online lessons fun.”*

Patience in a New Environment

Novice career-switcher teachers indicated that they will be patient about a new learning format for the start of the year. Three responses indicated that the teachers were flexible, willing to learn from others, and doing the best as possible.

Using Technology for Instruction

Six novice teachers specifically cited technology as their main concern for virtual learning regarding best instructional practices. These teachers felt overwhelmed with new computer applications and how to disseminate instructions to their students. Moreover, they are concerned about managing Google Meets with the students. Luisa, a special education teacher

and former marine, responded: *“I am concerned about not being able to keep a student in the meeting and not being able to get them to come back.”* Mary, a high school English teacher, responded about following the rules about submitting assignments and being attentive: *“Because school is online this year, I’m worried about students not obeying distance learning rules as it’s harder to enforce the rules online.”*

General Concerns of Novice First-Career Teachers

Question 20 of the survey asked teachers what they are most concerned about starting a teaching career. This question did not specify whether it related to any of the teacher self-efficacy factors. The teachers could write about anything they desired. Moreover, this question gave the teachers an opportunity to comment on other challenges caused by the COVID-19 pandemic.

Exposure to COVID-19 Virus

Novice career-switcher teachers responded that they were concerned about themselves and their families being infected by the COVID-19 virus while working in the building. At the beginning of the year teachers were not required to work in the building. However, the school board gave tentative dates for teachers to return. COVID-19 vaccinations were not available during the initial proposed timeframes. Without having the protection of a vaccine, this uncertainty made older teachers nervous about contracting the virus from the students when they returned to work in the buildings. Most interestingly, novice first-career teachers did not indicate their concerns about the virus in any of the free response submissions. Jenna, a fine arts teacher, had the most chilling response: *“Distance learning never ending, COVID killing me or someone in my family/community if and when we go back.”* Four other responses referenced being ill or exposed to COVID-19 in their responses.

Overall Inexperience

Seven novice career-switcher teachers responded that their inexperience in the profession impacts their job performance. These novice teachers worry that they will not be effective teachers and their students will not be receptive to them. Specifically, novice career-switcher teachers were concerned about:

- if students will like them,
- being evaluated and knowing the standards,
- learning technology and using it successfully,
- not knowing the correct education terminology, vocabulary, or instructional methods,
- not having enough support from the school system,
- time management,
- maintaining physical health.

Shared Themes in an In-Person Classroom Environment

As I analyzed the data, I noticed emerging themes that were shared by novice first-career teachers and novice career-switcher teachers. In this section, I will breakdown the shared themes for an in-person classroom environment.

Classroom Procedures are Essential

Both novice first-career and novice career-switcher teachers responded that they shared confidence in their ability to create and implement classroom rules and procedures.

Classroom Management is a Learning Process

Novice teachers stated that they are still learning classroom management. These novice teachers do not feel comfortable saying they are confident in classroom management in an in-person classroom setting.

Appropriate Instructional Practices

There were six instances where both novice first-career and novice career-switcher teachers expressed that they did not know enough about best instructional practices. For example, Tony, a middle school math teacher and former businessman, responded “*Not as confident - so many styles, differentiation, there is always more to learn and ways to improve.*” Ellen, a special education teacher and former business executive, responded: “*I only know some evidence-based strategies.*” Dora, a first-career elementary school teacher, responded “*I’m still working on this.*”

Creativity

Both groups of novice teachers felt confident in their abilities to be creative in a normal classroom environment. There were seven instances where both novice first-career teachers and novice career-switcher teachers indicated that they wanted to be creative. Janet, a high school math teacher and first-career teacher, responded: “*Asking questions that get students thinking critically, student-led discussions, group work, where students collaborate with each other.*” Madeline, a high school art teacher and former display coordinator for a major clothing store, responded that she has “*an understanding of art and ideas for fun projects.*”

Shared Themes in a Virtual Classroom Environment

Because of the COVID-19 pandemic, both novice first-career teachers and novice career-switcher teachers were asked to respond about their teacher self-efficacy in a virtual classroom environment. This section presents the shared themes that emerged across the two groups.

Desire to Build Relationships Online

Both groups of novice teachers responded that they want to keep students excited and engaged by developing relationships with students in a virtual environment. Ellen, a special

education teacher and former business executive, responded: “*I can touch base effectively with students and their mental wellness.*” Sophia, a middle school science teacher, responded: “*connecting with students through shared interests.*” These responses are interesting because engaging students online is often perceived as challenging.

Classroom Management Through Google Meets

The novice teachers worry students will abuse the function of Google Meets. Generally, they fear there will not be any support or control over this platform. With each group of novice teachers, five first-career and 11 prior-career teachers worried about monitoring the chatroom while presenting a lesson. They also do not believe administration will support them as they enforce school rules even in a virtual environment.

Student Computer Cameras and Microphones

This theme of student computer cameras and microphones was popular among both groups of novice teachers. In the virtual environment, teachers are using Google Meet, a platform to communicate with microphones and computer cameras, to interact with their students. Teachers worry they will not be able to engage their students if students choose to have their cameras and microphones off during class. The novice teachers feel they cannot be fully confident with student engagement virtually because of their students’ choices about computer cameras. Moreover, they feel students will fall through the cracks if the teacher cannot engage them directly if their cameras and microphones stay off throughout the class. Joey, a middle school English teacher, stressed that students will fail if students are not at their computers. Ronda, a business teacher, feels that she will not be able to reach her students if she cannot persuade her students to turn on their microphones and cameras. Two teachers specifically stated

they will assume the students are away from their computers if both their cameras and microphones are off in the Google Meet session.

Summary

Chapter 4 was the analysis of the objective data from the Teachers' Sense of Self-Efficacy Scale and presentation of the themes found in the free response questions. The data were collected through a survey over the course of two months at the beginning of the school year. Sixty-eight teacher surveys were used in the study. Of those respondents, 33 had previous careers, 35 did not. There was a statistically significant difference in the instructional strategies factor on the TSES between first career and novice career-switcher teachers. Although the analysis did not reveal a statistically significant difference in total teacher self-efficacy scores between novice first-career and career-switcher teachers, the responses taken from the free response questions illustrates where the specific differences and themes of teacher self-efficacy are for each group of novice teachers. Table 7.1 shows the hypotheses and the results.

Table 7.1

Objective Summary of Hypothesis and Results

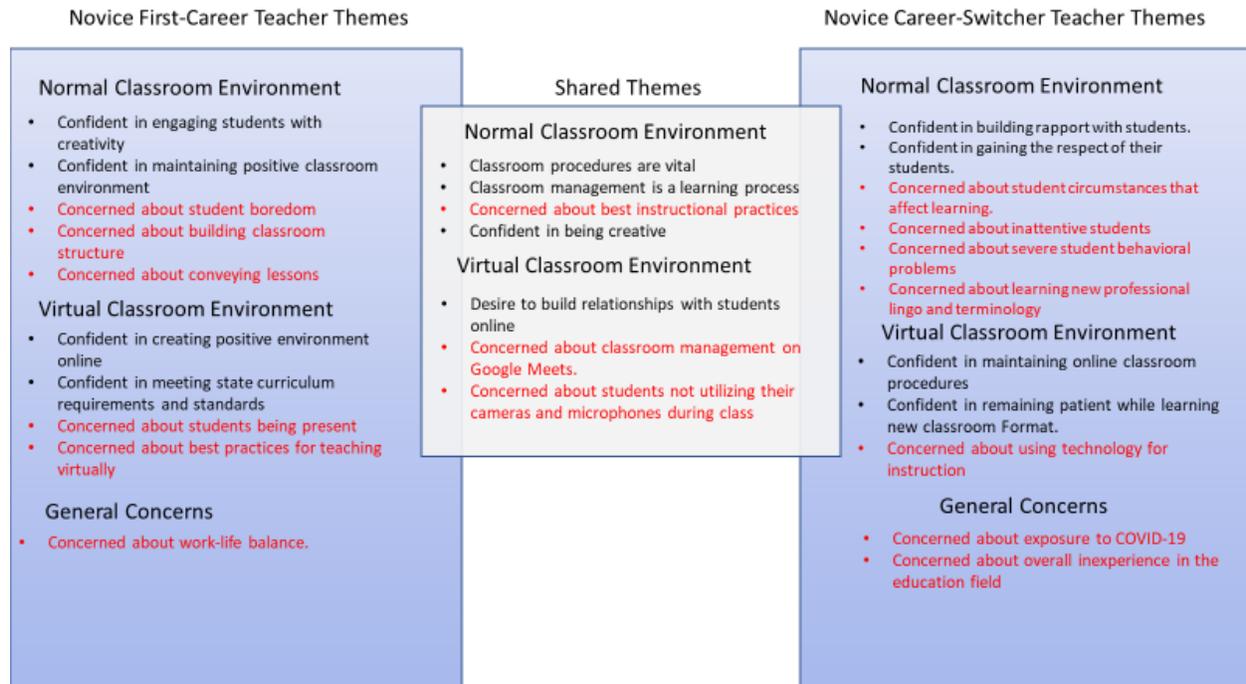
Objective Research Questions	Hypothesis	Variables	Tests Performed	Results
1	There is a difference in self-efficacy between first and career-switching novice teachers	IV: Prior-career status DV: TSES scores	Independent samples t-test	Not supported: p = .647
2	Teachers who have completed a teacher preparation program will have greater self-efficacy.	IV: Teacher Preparation DV: TSES scores	Independent samples t-test	Not supported: p = .245
3	At least one of the career field means is statistically different.	IV: Career-Field DV: TSES Scores	One-Way ANOVA	Not supported: p = .270

The Teachers' Sense of Self-Efficacy Scale (TSES) results showed no statistical differences in scores between novice first-career and novice career-switcher teachers. The free response questions show there are similar responses that correlate with the TSES factors of student engagement, classroom management, and instructional strategies. However, the free response question allowed me to see the specific tasks that teachers themselves listed as concerns or strengths as it pertains to an in-person or virtual classroom environment. According to the results, novice first-career teachers focus on lesson planning and student engagement. Novice career-switcher teacher responses focused on classroom management and professional terminology.

Figure 2 shows the different themes for each the novice first-career teacher and novice career-switcher themes. The figure shows that there were nuances in variation between the two

groups of teachers. There was also a list of shared themes which depicts the confidences and concerns about virtual and in-person classroom teaching environments.

Figure 2



Unique and Shared Free Response Themes

Chapter 5 consists of a detailed discussion of findings, implications, and recommendations for future research based upon the results presented in this chapter.

Chapter 5: DISCUSSION, IMPLICATIONS, CONCLUSIONS, FINAL THOUGHTS

The 2020-2021 school year was an unprecedented time in education. Many school districts across the country closed their buildings to students in fear that COVID-19 transmission would spread. After a decade of teaching, at times, I even found myself feeling like a novice teacher again. The new classroom structure, technology, and surroundings were vastly different from any of my previous teaching years. As I was experiencing the pandemic and how it affected my job, my responsibility as a teacher mentor still was to support my school's novice teachers. When I started my dissertation research, I was under the assumption that the school year would start normally. But, because the school year began differently, I knew the data of my study would be unique. I needed to understand where the teachers thought they would fall short as they started their careers in education during an unprecedented school opening. Ultimately, my goal for this research is to inform school systems about the teacher self-efficacy of both novice first-career and novice career-switcher teachers, so they have a clearer picture of how to support these teachers.

For this study, I used data from 68 novice teachers from a large suburban school district. The novice teachers taught in both elementary and secondary education in the system. Each of these teachers started their careers teaching virtually outside of the school buildings because of the spread of the COVID-19 virus. Prior to the 2020-2021 school year, the school district studied never started the year 100% virtual before, so the research will be helpful for developing future professional development to support distance learning.

This chapter provides an overall summary of that data and discusses the limitations, implications, and conclusions. This study examined the variance of teacher self-efficacy between novice teachers who are starting a career for the first time and novice teachers who are entering

the profession from a previous career as measured by the Teachers' Sense of Self-Efficacy Scale (TSES) and with supplemental free response questions. The survey also consisted of demographic questions such as age, gender, career status, education, and prior teacher preparation. Previous research suggests that novice career-switch teachers experience different challenges compared to teachers who have not had a previous career (Anderson et al., 2014). This study expands the research literature as it explored the challenges faced by novice teachers during a global pandemic

Discussion

In this section, I will give a synopsis of the findings for each research question. I used responses from the survey to answer each research question. Although total TSES scores between novice first-career and novice career-switcher teachers had no statistically significant difference, their free response questions did show variance for each factor in an in-person and virtual classroom setting.

Research Question 1 and 1a

Research Question 1 asked: How does teacher self-efficacy, which consists of student engagement, classroom management, and instructional strategies, vary between first and career-switching novice teachers in the COVID-19 pandemic?

According to the *t*-test, there were no statistically significant differences in total TSES scores between novice first-career ($N = 35$) and novice career-switcher teachers ($N = 33$). Because of the results, I failed to reject the null hypothesis. Although there was no statistical significance, novice first-career teachers had a higher mean score ($M = 84.94$, $SD = 10.93$) compared to novice career-switcher teachers ($M = 80.24$, $SD = 10.12$). These results mirror previous studies about novice teacher self-efficacy. Previous research suggests novice teachers,

especially career-switchers, have high self-efficacy if they have the necessary support system, while first-career teachers' self-efficacy relies on workload (Bar-Tal et al. 2020; Hoy & Spero, 2005). It seems novice first-career teachers feel that having an increased workload affects their self-efficacy more than feeling like they have necessary supports. Novice career-switcher teachers need to feel like they have the support and backing from administrators and other teachers. This difference makes sense for these two groups of teachers, who may or may not have experience with large workloads. Novice first-career teachers noted in the free response questionnaire that they worry about their work-life balance.

To provide additional context, virtual learning means no students are receiving instruction in-person inside a school building. Teachers interact with their students in two ways. First, they hold class in Google Meet, where the teachers have a webcam and access to screen-sharing. Google Meet allows for responding in chat rooms with students. There is a daily class schedule, where students move from class to class. Secondly, the school system purchased a new learning management system called Schoology, where the teachers can upload notes and assignments. Schoology was not used before the 2020-21 school year. Moreover, novice teachers did not have in-person interactions with most of their colleagues. In a traditional school year, teachers plan and collaborate in the school building. When asked about their teacher self-efficacy in a virtual environment, both groups of novice teacher themes began to merge because teaching in a new classroom setting was a new experience for everyone.

Student Engagement Novice first-career teachers in an in-person classroom setting felt confident engaging students with creative lessons and maintaining a positive classroom atmosphere. They do not want their classes to be dull or boring. On the other hand, novice career-switcher teachers did not respond about being creative in terms of their lesson planning.

Overwhelmingly, novice career-switchers responded they were confident with building relationships with their students. These teachers felt that building relationships was key to their success with engaging students. Interestingly, novice career-switcher teachers worried about individual student circumstances that could affect building those student relationships. As I have gained more experience working with diverse groups of students, I also began to appreciate the different backgrounds of students and how it affects their agency in school. Having novice career-switchers note student circumstances is not surprising because life experiences, especially as individuals advance in the workplace, allow them to see new circumstances, such as poverty, abuse, and illness. Novice first-career teachers are usually younger with fewer life experiences, which would have otherwise brought these circumstances to the forefront. Novice first-career teachers also noted the importance of building relationships, however, they were more focused on instructional delivery instead of worrying about underlying circumstances, for example, such as complicated lives at home.

In a virtual environment, novice first-career teachers were also confident about creating a positive atmosphere for their students. However, these teachers worry that their students will be absent, which will affect their ability to maintain that positive atmosphere. Novice career-switcher teachers also responded about how they will create a positive classroom environment online. They felt more confident about maintaining a clear structure for their classes. Both groups of novice teachers worried that students will not have their microphones or cameras on.

Online student engagement is a real concern for both groups of novice teachers. In the virtual classroom, students met with their teachers via Google Meet. The teachers were mandated to have their cameras and microphones on; however, the students did not have the same mandate. For instance, if a teacher had a group of twenty-five student in a class, only the teacher might

respond with their microphone or have their cameras on. This situation can be debilitating for teachers because they want to see their students' reaction and hear their students' voices. In my own experience, building rapport with students requires discourse that is meaningful. Having that meaningful discourse is difficult if the modalities of communication is limited to chat boxes. For both groups of teachers, this fear became a serious force in self-efficacy when it came to student engagement.

Classroom Management. In an in-person classroom environment, novice first-career teachers and novice career-switcher teachers noted how good classroom management positively impacts students. Novice first-career teachers felt comfortable building and maintaining a classroom structure that minimizes behavioral issues. For example, teachers would time different parts of their lessons to capture their students' attention. Another example is creating procedures for asking to go to the restroom or to ask to speak during class. These responses are indicative of traditional classroom management paradigms that might be learned in teacher preparation programs. In my personal experience, novice first-career teachers bring with them troves of different activities that bolster their control of the classroom. However, their responses indicated a high confidence in developing structure, but not stressing the importance of building relationships with students. This may be because of their lack of experience building relationships in general since many of the novice first-career teachers are entering the profession from being in schools themselves.

Novice career-switcher teachers stressed the importance of building relationships with their students as the means for building and maintaining good classroom management. In my experience, building relationships with students is the optimal way for students to respect you.

This realization came with many years in the workplace, so this makes sense that career-switchers would see the value of building relationships to create positive impacts.

In a virtual environment, the themes relating to classroom management began to merge. Because virtual learning was new for novice first-career and career-switcher teachers, both groups had concerns about classroom management. Their concerns stemmed from using Google Meets as their main form of synchronous communication and a new learning management system that the school system implemented.

The novice teachers expressed that they did not know how to properly manage bad behaviors during a Google Meet. As indicated, there was no guidance on how those instances should be reported or how to avoid them. This situation made national headlines when students were logging on to classes in which they did not belong. Novice career-switcher teachers were concerned that the relationship building that they relied on with in-person classrooms would be lost in the virtual environment. Interestingly, novice secondary and elementary first-career teachers responded that they felt more comfortable responding to students virtually. The difference in comfort levels could be based on experience with technology as a means of communication. Younger teachers are sometimes more familiar with texting and video chatting as a main form of communication, especially in learning environments.

Both groups of novice teachers felt that the school system's learning management system (LMS) was not helpful with managing the classroom. They also stated they had little support in implementing lessons through the LMS. In the 2020 spring semester, current teachers in the school district trained on the district's new learning management system (LMS). The novice teachers entering the district in the summer did not have the opportunity to participate in professional development. Because current teachers were still in the process of mastering the

new platform, they could only offer limited support to new faculty. Novice career-switcher teachers, especially, responded that they were worried about juggling the district requirements for the LMS while developing a strategy to ensure successful synchronous time with the students.

Instructional Strategies. A teacher's perception of their experience was the key element for exploring teacher self-efficacy regarding instructional strategies. In an in-person classroom environment, novice first-career teachers did not view their inexperience as a hinderance for developing lessons and teaching. These teachers, according to their responses, seemed eager to share their content knowledge with their students. The novice career-switcher teachers noted, however, that they felt uncomfortable using educational lingo. For example, many different groups, strategies, or requirements have a technical name or acronym. For example, a professional learning community (PLC) is where educators come together to discuss lessons or other facets of education. Many novice career-switcher teachers did not know what this meant, which lowered their self-efficacy. The school system in this study does not have guides for this terminology, which would explain the confusion. No novice first-career teacher mentioned educational terminology or lingo in their responses.

In the virtual classroom environment, novice first-career teachers felt more confident using technology to convey their lessons to students. Overall, they expressed that technology was not a major concern. Novice career-switchers, especially elementary school teachers, on the other hand, were puzzled about what online learning would look like for their students. Because novice career-switcher teachers may have been more removed from being in the classroom, their perception of the in-person classroom paradigm is still ingrained in their memories.

Research Question 1a asked: Which self-efficacy factor indicate greatest variance?

Novice career-switcher teachers had the greatest variance in instructional strategies ($N = 33$), ($M = 26.93$, $SD = 4.51$) compared to novice first career teachers ($N = 35$), ($M = 28.51$, $SD = 4.48$) on the TSES. In contrast, the self-efficacy factor with the least variance was classroom management; novice career-switchers ($N = 33$), ($M = 26.39$, $SD = 3.53$), novice first-career teachers ($N = 35$), ($M = 27.48$, $SD = 4.40$).

Although there was no statistical significance between the total TSES scores of novice first-career and career-switcher teachers, the novice first-career teachers had a mean score of 84.9 compared to career-switchers with a score of 80.2. For the individual TSES factors of classroom management, instructional strategies, and student engagement, novice first-career teachers had a higher mean score compared to novice first-career teachers. These results mirror previous studies about novice teacher self-efficacy. Support systems affect the self-efficacy of novice career-switcher teachers and workload affects novice first-career teachers (Bar-Talet al., 2020; Hoy & Spero, 2005). Novice first-career teachers indicated they worried about their work-life balance. Starting a new career is daunting, especially if the new career is begun in an unprecedented situation. The novice first-career teachers expressed that this situation would take away from their free time outside of work. The free response data emphasizes that novice career-switcher teachers did not feel supported as they begin their careers in a virtual classroom environment.

Moreover, novice first-career teachers worry that their workload will hinder them from creating engaging lessons. In their responses, novice first-career teachers focused on their confidence in their creativity. But because they had to learn a new LMS and new teaching format, they felt stymied in their ability to deliver creative lessons.

Research Question 2

Research Question 2 asked: Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?

According to the *t*-test, there was not a statistically significant difference on the Teachers' Sense of Self-Efficacy Scale between novice teachers who had (N = 62), (M = 82.54, SD = 10.42), and had not (N = 6), (M = 83.83, SD = 14.66) completed teacher preparation. Because of this result, I failed to reject the null hypothesis. This result was the most surprising of all the statistical results. In my opinion, teachers who have had prior teacher preparation would have had higher teacher self-efficacy. The COVID-19 pandemic influenced the teacher self-efficacy results because each teacher was starting the year in the same situation. The TSES does not differentiate its questions by virtual classroom setting or in-person classroom setting. The respondents may have answered assuming they were commenting on their self-efficacy on teaching virtually.

Research Question 3

Research Question 3 asked: Do prior career fields have an impact on teacher self-efficacy?

The novice teachers were grouped into five job categories based upon their responses in the demographic portion of the survey. There was not a statistically significant difference in any of the job categories. Social Work and Science/Engineering had the overall highest scores on the TSES. According to the free response data, teachers entering the profession from a business-related background stressed the importance of developing relationships with students. However, research shows that careers that emphasize the usefulness and experience of prior careers give

novice career-switcher teachers an advantage in classroom management and the ability to cope with difficult situations (Alharbi, 2020).

Research Question 4

Research Question 4 asked: How do novice first-career and novice career-switching teachers vary in their perception of teacher-related tasks?

The novice teachers who were surveyed gave free responses about what they felt were their strengths and weaknesses pertaining to student engagement, classroom management, and instructional strategies both in an in-person and virtual classroom setting.

Novice career-switcher teachers reported that they felt comfortable with content knowledge, however, they also reported that they felt inexperienced with best instructional practices. Novice career-switcher teachers face new challenges such as student discipline, paperwork, writing lesson plans, and managing their time (Bar-Tal & Gilat, 2019; Haggard et al., 2006).

Manuel and Hughes (2006) found that many career-switcher teachers came from fields that require a high level of commitment and training. The novice teachers reported careers from the following fields: Business, Education Related, Government, Hospitality, Social Work, Military, and Science. These career fields require a great deal of commitment and align with Manuel and Hughes' (2006) observation. In current research, novice career-switchers who came from careers that enabled them to see opportunities and recognize their strengths and dreams were successful in their first year of teaching (Bar-Tal & Gilat, 2019).

Limitations

The Teachers' Sense of Self-Efficacy (TSES) Likert scale was used for the detailed objective portion of the survey along with a demographic and free response section. The first

limitation of this study was the number of unusable submitted surveys. When the survey response timeframe ended, SurveyMonkey reported that 110 surveys were submitted. After cleaning the data and looking for incomplete surveys, I found that only 68 surveys were usable. Because the TSES data was critical in examining teacher self-efficacy scores, I did not use any surveys with missing TSES data. A larger sample of respondents would have increased the statistical power and maximized external validity. In the future, I would use an incentive, if allowed by the school system, to attract more respondents.

Another limitation of this study was the free response questions. I was unable to implement a face-to-face interview protocol. In an actual face-to-face interview with novice teachers, I could ask for clarification or elaboration. For this study, there was not an opportunity to follow up without compromising the anonymity of the respondents. For example, many novice career-switcher teachers responded that they were worried about COVID-19 affecting their personal and professional life. Because my study occurred during the pandemic, having more information about how teachers felt about the school district's response to COVID-19 would be invaluable.

Another limitation is the number of school districts in the study. I only sampled novice teachers from one school district. To make major conclusions, the sample size would need to expand over more than one school district in multiple areas of the country. Due to the timing and resources, only one school district in the United States was used. Since the TSES and supplemental free response questions are self-reported, there is no way to verify the accuracy of the information.

Finally, it is difficult to minimize the impact of COVID-19 on teachers' perceived notions of the teaching profession. Although the free response questions asked the novice

teachers to comment on their confidence and strengths about their self-efficacy in both an in-person and virtual classroom environment, the teachers knew they were entering the profession in the virtual environment. The teachers were preparing to work in the confines of their new environment during a global pandemic.

Implications and Recommendations

This section gives a detailed discussion on the implications for the school district studied and implications for future research. The school district implications are based off the themes analyzed from both the quantitative data and free responses. The implications for future research were deduced by the emerging themes and potential for furthering robust studies on teacher self-efficacy of novice teachers.

Implications for the School District

Both the objective and free response elements were used to develop the following recommendations for the school district studied. These implications involve the hiring of novice career-switcher teachers, district mentors and instructional coaches, differentiation of professional development for teachers, stress management resources, and strengthening communication.

Hiring Novice Career-Switcher Teachers. The Teachers' Sense of Self-Efficacy Scale (TSES) showed there was no statistical difference in scores between novice first-career teachers and novice career-switcher teachers. Moreover, the free response data shows that teacher self-efficacy was similar, but teacher perceived specific strengths and weaknesses were varied. Although there was variation, school districts should continue to hire career-switcher teachers. According to the free responses, novice career-switcher teachers were eager to meet their students, share their content knowledge, and learn more about best teaching practices. These

teachers were vulnerable with their responses, which shows their commitment to learning and reflective practice. Their previous careers are a strength because they can use prior professional experiences that will make them stronger employees for the school system.

Teacher Mentors and Instructional Coaches. Novice teachers need support in all three TSES factors: student engagement, classroom management, and instructional strategies.

According to the free response data, both novice first-career teachers and novice career-switcher teachers need one-on-one support in targeted areas. For example, novice first-career teachers did not feel confident in creating classroom structures that would help them manage a classroom effectively. Having a school-based mentor would give novice teachers direct access to support in their school buildings. School-based mentors give support and guidance to novice teachers about how to navigate everyday teacher tasks, teaching strategies, and building policies. Building-mentors also listen and alleviates problems a teacher may have. Novice career-switcher teachers responded that they were concerned about severe student behaviors. Experienced veteran teachers can guide novice career-switcher teachers on best practices to manage student classroom behaviors. Currently, the school district has seven instructional coaches that support 198 novice teachers. Instructional coaches are licensed full-time employees that support novice teachers in the school system. They meet with novice teachers on a quarterly basis to go over teaching strategies. Instructional coaches also run district-wide professional development sessions. The district needs to allocate more resources for instructional coaches. Having additional instructional coaches will allow more direct support for teachers.

Teacher mentors and instructional coaches will need to help novice teachers find solutions for the problems they face as the pandemic continues and beyond. These problems include work stress, navigating new technology, and supporting a larger group of students who

may have fallen behind others during virtual instruction. That is why it is imperative that the school system pledge additional resources to help create a database of solutions to common questions that novice teachers may have in the future pertaining to student engagement, classroom management, and instructional strategies. Moreover, mentors and instructional coaches will need the most up-to-date training and professional development on distance learning and best practices for coaching novice teachers at a distance.

Differentiated Professional Development. Although novice first-career teachers and novice career-switcher teachers did not have statistically significant TSES scores, they still had variation according to their free responses. Having differentiated professional development sessions starting at the beginning of the year and throughout the year would boost teacher self-efficacy if they were tailor made to fit the specific needs of different novice teachers. For example, novice career-switcher teachers overwhelmingly responded that technology was a concern. The school district should have synchronous sessions either at the district or school level to give tutorials on the technology the school uses. These tutorials should not be limited to summer sessions. Throughout the year, novice teachers should have the opportunity to take courses to refresh or learn new skills with the technology mandated by the school system. These courses could be advertised based on comfort-level.

As a second example, school districts should have a boot-camp course on popular educational lingo. Novice career-switcher teachers responded that they did not feel comfortable using or recognizing educational or pedagogical terminology. Knowing pedagogical terminology or system-wide lingo is important for novice teachers to learn because it lessens confusion. Educational terminology is used quite frequently and can differ between school systems. As school systems support their new teachers, they should anticipate that novice teachers may not

know certain acronyms for teaching related tasks. Teacher preparation programs may not be familiar with system or content specific terminology.

The school district should consider creating a professional development for novice first-career teachers about developing relationships and rapport with students. When asked about student engagement and classroom management both in an in-person and virtual classroom environment, novice first-career teachers did not express confidence in developing a rapport with students. According to Frisby and Martin (2010), students felt more connected to class if the teacher had strong interpersonal skills and developed a rapport. As an experienced teacher, I know the power of having relationships with students. Building positive relationships diminishes unproductive behaviors and promotes learning. School systems that provide opportunities for teachers to build rigorous curriculum, work together in learning teams, and develop meaningful relationships with students, saw an increase in school satisfaction among their student bodies (Gallagher & Mayer, 2006). Moreover, teachers will need training on trauma-informed practices related to the pandemic to help support students who may have been negatively impacted (Hamilton et al., 2020).

Stress Management. According to their free responses, novice first-career teachers were concerned about maintaining a healthy work-life balance. According to Klassen and Chiu (2010), stress has a direct impact on teacher self-efficacy. Teaching is challenging even for veteran teachers, so it is no surprise novice teachers struggle with maintaining a healthy work-life balance. The school system should offer seminars for teachers about how to cope with stress, utilize counseling, and have veteran teachers give presentations on how they manage work.

The pandemic has exacerbated the levels of teacher stress. In a 2021 RAND study, Diliberti et al. found almost half of the teachers who voluntarily left resigned due to the COVID-

19 pandemic. The teachers in that study worried about their health, especially if they had no access to a vaccine, and the growing responsibilities that were associated with the pandemic. An article in *Education Week* reported that 43% who left voluntarily before their retirement said it was not worth the time or pay (Will, 2021). Sixty-four percent left because they did not feel the risks were worth teaching during the pandemic. The respondents in my study also had similar fears. Some novice teachers responded that they were afraid for their family because they may bring home the COVID-19 virus.

Communication. The school district should examine how effectively they are communicating with their novice teachers. Both novice first-career and novice career-switcher teachers responded that they felt stressed when navigating the requirements for online learning, accessing curriculum, and other supports. The school district could do a better job of organizing and disseminating this pertinent information for their incoming teachers. Having distinct areas where teachers can find resources would help alleviate stress on novice teachers.

The novice teachers responded that they did not understand how the schedule worked for online learning or the grading policy. In the future, the school district should be clear on their expectations before the school year begins. Novice career-switcher teachers, especially, who are familiar with routines from their previous jobs, did not feel they were adequately prepared to start the year strong.

These implications will lead to a more robust and healthy impact on incoming novice teachers in the future. Hiring novice teachers from various backgrounds will lead to a more diverse workforce, which will enrich student exposure to different teacher viewpoints and past life-experiences in the classroom. Having a professional development program that is tailored to the needs of incoming teachers, especially during unprecedented times in education, will boost the

core competencies of all teachers. Moreover, having more instructional coaches on staff will allow novice teachers to have more dedicated help as they navigate their first year.

Implications for Future Research

Because there was variance in teacher self-efficacy scores in student engagement, classroom management, and instructional strategies between novice first-career and novice career-switcher teachers, future researchers should further examine those differences by:

1. Replicating the portion of the study that used the Teachers' Sense of Self-Efficacy Scale in a survey but follow up with teachers using a face-to-face interview protocol to make it a true mixed-methods study. There were instances where follow-up questions would have made the data more robust and specific.
2. Replicating the study but use a pre and post survey to examine the variance of teacher self-efficacy from the start of the year, middle, and end. This pre and post strategy would allow researchers to see if there would be an increase or decrease in teacher self-efficacy of novice teachers over time. This implication is critical because researchers and the school district can see if their supports are effective.
3. Interviewing novice teachers who have resigned their positions or transferred schools to examine their teacher self-efficacy to see if it is lower than teachers entering the profession for the first time at the beginning of the year. It is important to see if teacher self-efficacy impacts a teacher's desire to resign from teaching altogether or transfer to a different school or school district.
4. Following up with teachers in this current study to see if their teacher self-efficacy has changed throughout the year and when the pandemic ends.

Conclusions

Researchers have shown that self-efficacy is high if there are necessary supports (Bacon, 2020; Shields & Murray, 2017). Novice career-switcher teachers are likely to transfer out of their schools at the end of the first year if teacher self-efficacy is low (Ingersoll, 2007). Teachers were even more likely to leave during the pandemic (Will, 2021). Because teacher self-efficacy is important for both predicting teacher attrition with novice teachers, I examined the differences between different types of novice teachers, specifically teachers who are starting a career for the first time and those who are entering the profession from a previous career. Because their teaching preparation and career-development pathways are different, variance in teacher self-efficacy is worth studying to see where school districts can offer direct support and anticipate any changes in self-efficacy based on unforeseen circumstances, such as the global pandemic.

The findings revealed that there was not a statistically significant difference in total teacher self-efficacy scores as measured by the Teachers' Sense of Self-Efficacy Scale (TSES) between novice teachers starting a career for the first time and those who are coming into the profession from a prior career during a pandemic. There was also no statistically significant difference in teacher self-efficacy on a novice teacher's current teacher preparation status or prior career. However, perhaps, there may have been differences if this was a typical school year. The impact of the pandemic on their beliefs and perceptions cannot be underestimated.

The free response data led to a variety of themes based on the teacher self-efficacy of novice first-career and novice career-switcher teachers in the areas of student engagement, classroom management, and instructional strategies both in an in-person and virtual classroom environment. I asked the novice teachers to describe both their confidence and weaknesses in

both environments. Their responses led to themes that matched an either high or low teacher self-efficacy.

Because teacher self-efficacy is an important factor for teacher attrition, highly experienced teachers and administrators could develop robust induction programs which address the unique needs of subgroups of novice teachers before they enter the classroom. Based on the free responses, both groups of novice teachers feel in some way their inexperience will hinder their success. It is important for school districts to assume the responsibility of training and preparing teachers for long-lasting careers. School districts can lower attrition by examining teacher self-efficacy of their novice teachers and investing in the necessary supports.

Final Thoughts

The 2020-2021 school year was challenging for me as well as my experienced and inexperienced colleagues as we tried to navigate a new teaching paradigm. The students were not in the hallways, at their lockers, eating lunch in the cafeteria, or saying hello to staff as they walked into the classroom. Teachers were not putting up colorful bulletin boards, having conversations at the photo copiers, receiving hugs from grateful elementary school students, or participating in other traditional everyday teaching tasks. These experiences are typically a crucial part of being a teacher. Unfortunately, novice teachers did not have the traditional experience that most teachers have had when they started their teaching careers. Moreover, many teachers were considered at-risk for severe COVID-19 infections, which added a layer of stress for every professional in education.

When I conceptualized this study, I was thinking about how I could make a positive impact for novice teachers. I have had the pleasure of mentoring new teachers in my building, which has been just as rewarding as working with my middle school and high school students.

During the pandemic, mentors and proteges only communicated virtually instead of with each other inside the school building. I asked myself, what do novice teachers need, especially career-switchers? How can we use this information in the future? The COVID-19 pandemic only affirmed my desire to ask these questions. Novice teachers are the future of education. Without new teachers, how can educators continue the greatest institution of public education? These teachers deserve a voice where they can express their concerns and have their unique needs met, so they can, in turn, meet the unique needs of the students in their classrooms. I feel it is the responsibility of every teacher and administrator to meet these teachers where they are and guide them to greatness. Hopefully, my research will inspire others to study and support the dedicated novice teachers that we have in the United States and across the globe.

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Appendix A

Survey Questions

Demographic Questions

These questions are aimed to get a better understanding of the differences and variations of new teachers coming into the school division. The responses can help educators create resources to match the needs of teachers. Your responses are anonymous and confidential. The school division will not receive a copy of any provided responses.

1. Other than being a student, did you have a previous career before entering the teaching profession?

Yes

No

2. If you had a previous career, what was it? If not, leave blank.

3. Were you a college student immediately before starting your career in the school division?

Yes

No

4. Was teaching your first career choice after graduating from college?

Yes

No

5. If teaching was not your first choice, what was it? If yes, leave blank.

6. Have you completed teacher preparation coursework at a college or university?

Yes

No

7. Did you complete teacher preparation coursework in-person or online?

I have not completed a teacher preparation program yet.

- Online
- In-person
- Both In-Person and Online

8. In your teacher preparation coursework, did you student teach in-person or online?

- In-person
- Online
- I did not student teach
- Both In-Person and Online

9. What is the highest level of education you have completed?

- Bachelors
- Masters
- Doctorate

10. What was your major and minor as an undergraduate in college?

11. What content and grade level will you be teaching?

12. Do you ever plan on becoming an administrator in the school division?

- Yes
- No
- Maybe

13. Which race/ethnicity best describes you?

- American Indian or Alaska Native
- Asian or Asian American
- Black or African American
- Hispanic or Latino
- Native Hawaiian or other Pacific Islander
- White or Caucasian
- I prefer not to answer
- Another race (please specify)

14. What is your gender?

- Female
- Male
- Other
- I prefer not to answer

15. How old are you?

General Questions

Free Response. These questions will help educators design and implement supports in different areas of teaching to help new teachers be successful. Your responses are anonymous and confidential. The school division will not receive a copy of any provided responses.

16. In an in-person classroom setting, explain what are you most **confident** about in regard to

Student Engagement

Classroom Management

Instruction Practices

17. In an in-person classroom setting, explain what are you most **concerned** about in regard to

Student Engagement

Classroom Management

Instructional Practices

18. In a virtual/online classroom setting, explain what are you most **confident** about in regard to

Student Engagement

Classroom Management

Instructional Practices

19. In a virtual/online classroom setting, explain what are you most **concerned** about in regard to

Student Engagement

Classroom Management

Instructional Practices

20. Why did you choose to be a teacher?

21. If you are entering the teaching profession from a previous career, why did you leave your previous career? If N/A, leave blank.

22. What excites you the most about starting your teaching career?

23. What are you most concerned about starting your teaching career?

Teachers' Sense of Self-Efficacy Scale

This questionnaire is designed to help educators gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your responses are anonymous and confidential. The school division will not receive a copy of any provided responses.

24. How much can you do to control disruptive behavior in the classroom?

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
How much can you do to control disruptive behavior in the classroom?	<input type="radio"/>				

25. How much can you do to motivate students who show low interest in school work?

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
How much can you do to motivate students who show low interest in school work?	<input type="radio"/>				

26. How much can you do to get students to believe they can do well in school work?

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
How much can you do to get students to believe they can do well in school work?	<input type="radio"/>				

27. How much can you do to help your students value learning?

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
How much can you do to help your students value learning?	<input type="radio"/>				

28. To what extent can you craft good questions for your students?

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
To what extent can you craft good questions for your students?	<input type="radio"/>				

29. How much can you do to get children to follow classroom rules?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
How much can you do to get children to follow classroom rules?	<input type="radio"/>								

30. How much can you do to calm a student who is disruptive or noisy?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
How much can you do to calm a student who is disruptive or noisy?	<input type="radio"/>								

31. How well can you establish a classroom management system with each group of students?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
How well can you establish a classroom management system with each group of students?	<input type="radio"/>								

32. How much can you use a variety of assessment strategies?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
How much can you use a variety of assessment strategies?	<input type="radio"/>								

33. To what extent can you provide an alternative explanation or example when students are confused?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
To what extent can you provide an alternative explanation or example when students are confused?	<input type="radio"/>								

34. How much can you assist families in helping their children do well in school?

	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
How much can you assist families in helping their children do well in school?	<input type="radio"/>								

35. How well can you implement alternative strategies in your classroom?

	Nothing	Very Little	Some	Influence	Quite A Bit	A Great Deal	
How well can you implement alternative strategies in your classroom?	<input type="radio"/>						

Final Comments (Optional)

Your responses are anonymous and confidential. The school division will not receive a copy of any provided responses.

36. What resources would you need to better support you during your first year of teaching?

37. What are, if any, your final thoughts about your abilities in classroom management, student engagement, and instructional practices?

Appendix B

Respondent Demographic Information

Gender	N	Percent
Female	52	76.5
Male	11	16.2
Other	1	1.5%
Prefer not to answer	4	5.9
Total	68	100

Race	N	Percent
American Indian or Alaskan Native	1	1.5
Asian or Asian American	7	10.3
Black or African American	3	4.4
Hispanic or Latino	3	4.4
White or Caucasian	50	73.5
Prefer not to answer	4	5.9
Total	68	100

Previous Career	N	Percent
Yes	33	48.5
No	35	51.5
Total	68	100

Previous Career Category	N	Percent
Business	13	19.1
Education-Related	11	16.2
Government	2	2.9
Hospitality	1	1.5
Social Work	1	1.5
Military	1	1.5
Science/Engineering	1	1.5
No Prior Career	35	51.5
Total	68	100

Teaching First Career Choice	N	Percent
Yes	47	69.1
No	21	30.9
Total	68	100

Prior Teaching Preparation	N	Percent
Yes	62	91.2
No	6	8.8
Total	68	100

Appendix C

Respondent Survey Invitation

Dear Colleague,

I am a doctoral candidate in Hood College's doctoral program in organizational leadership. You are invited to participate in a research study about teacher self-efficacy of new teachers. This is a quantitative study designed to gather your perceptions of common teacher related areas specifically classroom management, student engagement, and instructional practices. I, Michael Lucido, am conducting this study as part of my doctoral dissertation with Hood College in Frederick, Maryland.

I am seeking volunteer responses from all first-year teachers to gather data about teacher self-efficacy. This information can be used to help educators create resources to help new teachers succeed in their first year. A link to the questionnaire and survey is at the bottom of this email. By clicking on the link and completing the survey, you consent to allowing your responses to be used in this study. The survey should take approximately 15 minutes to complete and will consist of questions addressing demographics and different aspects of teaching. All information pertaining to this study will be kept confidential. Your name will not be collected, published, or released.

Your participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with the school division or Hood College or any of its representatives. If you decide to participate in this study, you are free to withdraw from the study at any time without affecting those relationships.

Duration:

The questionnaire and survey should take approximately 15 minutes to complete.

Procedures:

If you agree to be in the study I am asking you to do the following:

- Complete the electronic questionnaire at a location and on a device of your choosing.
- You may withdraw your response at any time by contacting me directly or Hood College.

Anonymity:

All records pertaining to this study will be kept private. Your name or school's name will not be used. No names will be collected in the survey or by the PI. All data will be stored on my personal computer which requires a username and password to access. Published reports and/or presentations will not include any information that will make it possible to identify participants.

Questionnaire and Survey Link

Thank you for your time and hope you have a great school year.

Sincerely, Michael Lucido (xxxx@xxxx.edu) Doctoral Candidate at Hood College

Appendix D

Hood College IRB Application

Hood College
Institutional Review Board
Application

1. Title of Proposal: Teacher self-efficacy of first and second-career novice teachers in a suburban school district
2. Principal Investigator (PI): Michael Lucido
3. PI Department: Hood College's Graduate School; Hood College's Doctoral Program in Organizational Leadership (DOL)
4. PI Contact Information: 123 Street, Anytown, USA. 22222 Email: xxxx@xxxx.edu Cell: xxx-xxx-xxxx
5. Faculty Sponsor and Contact Information (if PI is a student): Dr. Jennifer Cuddapah, Cuddapah@hood.edu
6. Date of this Submission: June 15, 2020
7. Proposed Duration of the Project (indicate starting and ending dates): August 2020 – May 2021
8. Background Information and Research Questions/Hypotheses:

In school divisions across the United States, schools are hiring teachers who are coming from second careers (Anderson et al., 2014; Bendixen-Noe & Redick, 2012; Lerner & Zittleman, 2002) Many schools are hiring these teachers provisionally or through lateral-entry programs created by state legislatures. States have incentivized individuals whose initial career-track was not teaching.

The general problem is novice second-career teachers, even those who have gone through a teacher preparation program initially, have a variety of personal and professional challenges as they migrate professions resulting in high anxiety over teacher-related tasks (Haggard et al., 2006). Haggard et al. (2006) noted that second-career teachers express concerns over the daily challenges of teaching such as “discipline, planning curricula, preparation, and paperwork” (p. 322).

The specific problem is that school divisions do not have data on the variations of teacher self-efficacy between novice first-career and second-career teachers, resulting in specific gaps for teacher supports in their first year. Much of the research does not address issues such as how backgrounds of incoming teachers affect their likelihood of leaving after their first year. Some research has suggested that school staffing, family life, general dissatisfaction, and career-goals have significant impact on new-teacher turnover (Ingersoll & Smith, 2003; Klassen & Durksen, 2014; Langdon & Ward, 2015). However, these broad categories do not consider self-efficacy (Bandura, 1978; Gibson & Dembo, 1984).

The purpose of this quantitative self-efficacy study is to explore the variations of teacher self-efficacy between novice first-career and second-career teachers, leading to the creation of resources to help school division induction programs differentiate the needs of

different novice teachers. The study will utilize social cognitive theory and learning theory in a self-efficacy survey of novice teachers in a large mid Atlantic suburban school district. Exploring the variation in teacher self-efficacy will provide insight on how to support a growing number of career-switching teachers in the United States.

Research Questions

- RQ1. How does teacher self-efficacy which consists of student engagement, classroom management, and instructional strategies vary between first and second-career novice teachers?
- RQ1a: Which self-efficacy factors indicate greatest variance?
- RQ1b: Which self-efficacy factors indicate the least variance?
- RQ1c: Which self-efficacy factor will be the most challenging for first-career teachers?
- RQ1d: Which self-efficacy factor will have the least impact on first-career teachers?
- RQ1e: Which self-efficacy factor will be the most challenging for second-career teachers?
- RQ1f: Which self-efficacy factor will have the least impact on second-career teachers?
- RQ2: Do teachers who have completed teacher preparation coursework have higher teacher self-efficacy than those who did not?
- RQ3: Do prior career fields have an impact on teacher self-efficacy?
- RQ4: What are the different areas of teaching that excite novice first-career teachers more than novice second-career teachers?
- RQ5: How do novice first-career and novice second-career teachers vary in their perception of teacher-related tasks?

Research Hypotheses

- RQ1 H1: First career novice teachers will have higher teacher self-efficacy in student engagement compared to second-career novice teachers.
- RQ1 H2: Second career novice teachers will have higher teacher self-efficacy in classroom management compared to first career novice teachers.
- RQ1 H3: First career novice teachers will have higher teacher self-efficacy in instructional strategies than second career novice teachers.
- RQ1 H4: There will be no variation in teacher self-efficacy between first and second career novice teachers.
- RQ2 H1: Teachers who have completed teacher preparation coursework will have higher teacher self-efficacy than those who did not.

All incoming new novice teachers will be asked via email to complete a survey to assess self-efficacy and to gather demographic data (Survey in Appendix B). Included in the survey will be free response questions to further explore topics listed in the Likert survey. The Likert survey is the Teacher's Sense of Self-Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001) (Appendix B).

The questionnaire will provide demographic data to create an aggregate describing the group being studied (age, gender, prior education, prior career experience, and teacher program completion (Appendix B). Describing the group gives the quantitative study clear independent variables and qualitative research potential transferability. Included in the

questionnaire will be free response questions (Appendix B) that supplement questions for the TSES.

9. Human Participants:

- A. Who are the participants? All novice first year teachers in a large mid-Atlantic suburban school district.
- B. How many participants do you plan to have in your study? 200-300
- C. How will the participants be contacted or recruited? Participants will be sent an email inviting them to participate in the study. The email list will be provided by the school division's Coaching and Mentoring Office.
- D. Will the participants be compensated for participating? If so, describe: No compensation will be provided to participants. The school division does not allow compensation for participation.

10. Procedures:

In the start of the fall quarter, I will send out a SurveyMonkey link via email to all novice first-year teachers in the school division. SurveyMonkey will not store any personal information including respondent IP address information. The IP logging feature will be disabled. The email will have a copy of informed consent (Appendix A) and my contact information. Participants can withdraw from the study at any time. Once the participant agrees and starts the survey, they will be asked to give demographic information. No identifying personal information will be asked. Then, participants will have to respond to the Teachers' Sense of Self-Efficacy Survey as well as respond to supplemental free response questions. In October, the same survey will be sent out to the original email list again.

- 11. Consent: Before the participant begins the survey, they will have an opportunity to read the consent form in the invitation email (Appendix A). Respondents will provide consent by completing the survey; this is in-line with how the consent is currently given within the district being studied.
- 12. Risks and Debriefing: There are no physical, psychological, or social risks of participating in the study. The school division being studied will not have a record of who participates. The school division will give consent for the study as well as meet Hood's IRB approval.
- 13. Privacy and Storage of Data: Data gathered for this investigation will be kept confidential. No names or email addresses will be collected. Access to the surveys and data being collected will be limited to the PI and his doctoral committee. Further, to protect confidentiality, participants will be told: no participants names will be collected or stored before or after the study or will be given to the school district, tracking of data will only be done using pseudonyms, and all physical data will be kept in a locked room and all electronic data on the PI's personal computer. The PI's computer is only accessible through username and password. Any data listed on physical media will be stored in the PI's office cabinet locked with a key only accessible to the PI. The PI will be storing data for the study for three years. All data thereafter will be destroyed.

Appendix E

Approved Hood IRB Letter



June 30, 2020

Mr. Michael Lucido
401 Rosemont Ave.
Frederick, MD 21701

Dear Mr. Lucido,

The Hood College Institutional Review Board reviewed your proposal for the study entitled "*Teacher self-efficacy of first and second-career novice teachers in a suburban school district*" (Proposal Number 1920-34). The committee determined that this study merits EXEMPT status and approves this study for a period of 12 months. This approval is limited to the activities described in the procedure narrative and extends to the performance of these activities at each respective site identified in the IRB research proposal. This approval does not authorize you to recruit participants or conduct your study on site at other institutions. Should you decide you would like to systematically recruit participants and/or conduct your study on location at other institutions or facilities you will need to receive IRB approval from those organizations *prior* to any recruitment activities or data collection.

In addition, due to the current COVID 19 precautions, Hood's IRB is restricting all in-person (e.g. face-to-face) data collection with participants at this time. You may only recruit participants and collect data online. You are not authorized to meet with your participants for the purpose of data collection until notice from this IRB. In accordance with this approval, the specific conditions for the conduct of this research and informed consent from participants must be obtained as indicated.

All individuals engaged in human subjects research are responsible for compliance with all applicable Hood Research Policies:
<https://www.hood.edu/sites/default/files/Hood%20IRB%20Policy%20revised%20September%202013.pdf>.

The Lead Researcher of the study is ultimately responsible for assuring all study team members review and adhere to applicable policies for the conduct of human sciences research.

The Hood College IRB approval expiration date is June 30, 2021. As a courtesy, approximately 30-60 days prior to expiration of this approval, it is your responsibility to apply for continuing review and receive continuing approval for the duration of the study as applicable. Lapses in approval should be avoided to protect the safety and welfare of enrolled participants.

No substantive changes are to be made to the approved protocol or the approved consent and assent forms without the prior review and approval of the Hood IRB. All substantive changes (e.g. change in procedure, number of subjects, personnel, study locations, study instruments, etc.) must be prospectively reviewed and approved by the IRB before they are implemented.

Sincerely,

Diane R. Graves, PhD
Chair, Hood College Institutional Review Board

Appendix F

Email Invitation Reminders

09/21/2020

Dear colleague!

I hope that you have had a wonderful first two weeks. I am sending out another email to ask for your completion of my survey. Your participation would be greatly appreciated. The study's goal is to gather information to help new teachers in the future. Your opinions and experiences are very important and invaluable. The survey is anonymous and confidential. Here is the survey link: <https://www.surveymonkey.com/r/82WFKMY>

Take care,
Mike

10/19/2020

Dear Colleagues,

I hope this email finds you well. Last month, I sent out an email with a link to a survey for new teachers asking for your opinion about starting your teaching career. I know, even as an experienced teacher, that a lot has been thrown at us regarding lesson planning, learning Schoology, tracking student progress and work, and finding time to just breathe. **I want to make sure that your voice is heard.** Your response will not only help new teachers in the future in LCPS but will also help teachers in other divisions. Your responses are completely anonymous and confidential. LCPS will not have access to individual responses.

If you have 6 minutes to spare, please click on this survey

Appendix G

SPSS Codes

Question	SPSS Variable Code
Other than being a student, did you have a previous career before entering the teaching profession?	1= Yes 2=No
Were you a college student immediately before starting your career in the school district?	1=Yes 2=No
Was teaching your first career choice after graduating from college?	1=Yes 2=No
Have you completed teacher preparation coursework at a college or university?	1=Yes 2=No
Did you complete teacher preparation coursework in-person or online?	1=I have not completed a teacher preparation program yet 2=Online 3=In-person 4=Both In-person and Online
In your teacher preparation coursework, did you student teach in-person or online?	1=In-person 2=Online 3=I have not completed a teacher preparation program yet 4=Both In-person and Online
What is the highest level of education you have completed?	1=Bachelors 2=Masters 3=Doctorate
Do you ever plan to become an administrator in the school district?	1=Yes 2=No 3=Maybe
Which race/ethnicity best describes you?	1=American Indian or Alaskan Native 2=Asian or Asian American 3=Black or African American 4=Hispanic or Latino 5=Native Hawaiian or other Pacific Islander 6=White or Caucasian 7=I prefer not to answer
What is your gender?	1=Female 2=Male 3=Other 4=I prefer not to answer
Teachers' Sense of Self-Efficacy Questions 1-12	1=Nothing 2=Between Nothing and Very Little 3=Very Little 4= Between Very Little and Some Influence 5=Some Influence 6= Between Some Influence and Quite A Bit 7= Quite a Bit 8= Between Quite A Bit and Great Deal 9=Great Deal

Question	SPSS Variable Code
If you had a previous career, what was it?	1=None 2=Business 3= Education Related 4= Government 5=Hospitality 6= Social Work 7=Military 8= Science Related
What was your major and minor as an undergraduate in college?	1=Fine Arts 2=Social Sciences 3=Education 4=Pre-Professional 5=Business 6=English 7= Sciences 8= Mathematics/Engineering 9= History/Political Science/Government
What content and grade level will you be teaching?	1=Elementary 2=Middle School 3=High School 4=Special Education 5=Guidance Counseling 6=English Language Learners