2020

A Grounded Theory Study for Developing Teacher Self-Efficacy Throughout a Teaching Career

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A DISSERTATION SUBMITTED TO THE FACULTY

OF THE SCHOOL OF EDUCATION

OF THE UNIVERSITY OF ST. THOMAS

ST. PAUL, MINNESOTA

By David E. Grambow

2020

UNIVERSITY OF ST. THOMAS, MINNESOTA

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Throughout a Teaching Career

We certify that we have read this dissertation and approved it as adequate in scope and quality. We have found that it is complete and satisfactory in all respects, and that any and all revisions required by the final examining committee have been made.

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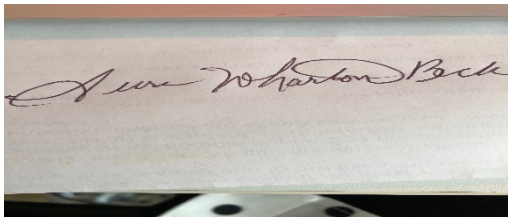

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March 31, 2020

Final Approval Date

Abstract

Teachers face unprecedented pressures that call into question their effectiveness and sense of self-efficacy. Teacher-self efficacy (TSE) involves teachers' beliefs about their ability to meet the needs of their students regardless of circumstances or challenges (Tschannen-Moran & Hoy, 1977). Studies consistently supported the impact of self-efficacy on teacher effectiveness (Gibson & Dembo, 1984). A gap in the literature existed regarding how teachers develop self-efficacy throughout their careers. A mixed methods grounded theory study was conducted to identify factors affecting teachers' self-efficacy at various career stages. I conducted a series of recursive interviews and focus groups and collected survey data related to the same topic. Findings revealed teachers develop a sense of self-efficacy in different ways depending in large part on their career path location. However, some factors positively influence TSE in all career stages, including self-reflection, feedback, collaboration, student relationships, and inclusive educational practices. A career model of teacher self-efficacy revealed differences in the contributing factors to self-efficacy based on learning habits and a direct focus on students. Generally speaking, as teachers progress through their careers, their TSE is fostered by narrowing their focus to aspects of their practice that directly impact students. For example, novice teachers developed TSE through feedback from authority figures while veteran teachers sought feedback directly from students. Additionally, the TSE of more experienced teachers was positively impacted by expanding their influence. For instance, veteran teachers pursued opportunities to mentor or coach other teachers as a way give back to the profession while enhancing their TSE.

Keywords: Teacher self-efficacy, efficacy, locus of control, reflection, feedback, collaboration, inclusion, career stage, grounded theory

Acknowledgments

First and foremost, I would like to thank my wife, Lori, for her patience with me over the past several years as I have spent many weekends holed up in my office reading, writing, and procrastinating. Without her support, I would have never been able to complete this journey. Just as she does in every aspect of my life, she has offered purpose, guidance, and corrective advice (solicited and unsolicited).

I would also like to recognize my advisor, Dr. Sarah Noonan. Dr. Noonan has provided support through her extensive knowledge of quality teaching practices, educational theory, and research. More importantly, Dr. Noonan has inspired me through her dedication to learning in the broadest sense. She is equally committed to the learning of children in our schools as she is to the adults for whom she facilitates transformative learning. Her expertise in academic procrastination has also helped me stay the course through her gentle prodding and expertly timed requests for the next section of text.

I extend my heartfelt gratitude to my Cohort 30 and Cohort 1 colleagues. We are a diverse group of learners who quickly developed a sense of common mission for which I will be forever grateful. I would especially like to thank Lynn, Michelle, and Kamal for the steadfast support. I so value our Sunday evening support sessions!

Most importantly, I would like to recognize the participants in my study who so selflessly offered their time, perspective, and insight. I have learned so much from all of you. It is your

stories and experience that I have attempted to weave into this dissertation. I only hope I did them justice.

Dedication

I lovingly dedicate this dissertation to my three children: Lindsey, Lance, and Lauryn. You have inspired me to continue to pursue my educational goals. I could not be more proud of the way you support one another. Always remember that investment in your own education will pay dividends for your entire life. Never stop growing, never stop learning, and never stop serving others.

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CHAPTER 1: INTRODUCTION

On March 11, 2011, Wisconsin Governor Scott Walker signed ACT 10, otherwise known as the Budget Repair Bill, into law. ACT 10 engendered significant controversy and became a lightning rod for vitriol and division. Supporters of ACT 10 asserted the bill effectively addressed a considerable budget deficit, but critics of the law claimed Governor Walker was attempting to balance the budget at the expense of public school teachers. ACT 10 was a neoliberal reform effort that placed confidence in the market to rectify the perceived missteps of the public education system (Harvey, 2014; Murphy, 2015). Supporters of the legislation viewed it as a common-sense reform measure to control school spending and provide districts the flexibility to balance their own budgets (Kittle, 2018). From limiting union rights for collective bargaining to placing the responsibility of health care coverage on the shoulders of employees, ACT 10 followed a neoliberal blueprint. Under ACT 10, teachers were "supposedly free to choose [yet] they are not supposed to choose to construct strong collective institutions (such as trade unions) as opposed to weak voluntary associations" (Harvey, 2014, p.69). ACT 10 transformed the teachers' unions in Wisconsin into just that – weak voluntary associations. Many teachers interpreted the debates and community-wide arguments regarding the merits of ACT 10 as questioning the value of public education and public school teachers in general.

I served as an elementary school principal in a mid-sized western Wisconsin school district when Governor Walker proposed ACT 10 in January 2011, just two months before he signed the bill into law. Simple geography shielded western Wisconsin from in-state media; most of our print, radio, and television press came from Minnesota. Governor Walker and policy strategists developed ACT 10 quietly, behind closed doors, and the bill took Madison and Milwaukee media outlets by surprise. Remote communities without universal access to

Wisconsin media were shocked by its passage (Kahlenberg, 2011). Critics claimed the clandestine manner in which the legislation addressed the bill accelerated implementation, obstructed debate, and consequently forced an aggressive reaction to the proposal. I found myself amid a political maelstrom dividing my loyalties while forcing me to reflect on my role as a school administrator and advocate for public education.

To be clear, as a school administrator, I saw benefits to ACT 10, but I also empathized with teachers who were feeling undervalued. The reality is that the impact of ACT 10 did provide newfound latitude for districts. The choices of each district ultimately determined the impact of the law on teachers. I was confident our district would not take advantage of our teachers with the newfound latitude afforded by the passage of ACT 10. I also understood teachers felt compelled to stand for teachers throughout the state.

By February 11, 2011, small-scale protests of ACT 10 began to emerge in and around Milwaukee and Madison (Glauber & Walker, 2011). Being somewhat isolated from Wisconsin media, the fervor around the topic of ACT 10 was slow to reach my district. On the evening of February 17, 2011, teachers inundated our automated substitute teacher system by calling in sick for the following day. We received word from a few teachers regarding an organized effort to encourage teachers to attend the ACT 10 protests in Madison the next day. As a district, we attempted to develop a plan of action quickly.

We were primarily concerned with maintaining adequate staff and substitute teachers for holding class. Our secondary concerns were twofold. First, we wanted to respect our teachers, who felt torn by the issue. Second, we tried to protect teachers from any potential backlash from the community. We decided we must call each teacher in my school individually to inquire if they were planning to attend school the next day. Some teachers resented the phone call, feeling

it called their professionalism into question. Ultimately, based on teacher response, we decided we could not hold classes.

I soon came to realize the dilemma of whether or not we could hold school on one day in 2011 was simply a symptom indicative of a potentially much more harmful systemic concern. Teachers felt disrespected and underappreciated. In the ensuing weeks, I engaged in numerous conversations with teachers who began to question their value as educators and their choice to pursue a career in public education. I found myself ill-prepared for the emotional toll this political maneuver exacted on our teachers. Morale in our school plummeted, and political tension put stress on relationships between many teachers and their students' families.

I personally understood the benefits and challenges related to ACT 10, but my understanding had no tangible impact on my next steps. I had a responsibility to find a way to empower teachers to do everything in their power to once again meet the needs of all our students. Some teachers, although disappointed in the political landscape, remained focused on their students and ignored disparaging comments about the value of public education, which cast doubt on their effectiveness. I vividly remember a conversation with a teacher named Caroline, who I knew to be upset with the passage of ACT 10. This particular teacher continued to be incredibly productive, positive, and student-focused throughout this tumultuous period. I asked Caroline how she remained so focused, given the fact she felt hurt and disrespected. She passionately told me she knew her students needed her, as she was the single most crucial factor in her students' success. She went on to explain the belief she had in herself, and her students were stronger than the unavoidable negativity around public education so pervasive at the time. This conversation moved me and became fundamental to my strategy for helping other teachers move beyond negativity and self-doubt.

ACT 10 continues to have a significant impact on public education in Wisconsin (Beck, 2017). However, this impact has become much more locally focused. Individual school districts began to make decisions directly affecting teachers who previously would have been impossible or at least heavily contested by teachers' unions (Berkovich, 2011). Leaders in my district quickly took steps to ensure the inclusion of teacher voice in important decisions. For example, we formed the Teacher Advisory Council (TAC). TAC consisted of a cross-section of teachers who openly discussed issues impacting teachers.

Ultimately, we made changes to retirement benefits, healthcare benefits, and, most notably, compensation structures. In our district, we instituted a pay-for-performance structure. Many teachers claimed these decisions negatively affected their confidence in their teaching abilities. Caroline and many other teachers who maintained a similar approach to their profession coped with these challenges and continued to be highly effective teachers. This latent ability is called "teacher self-efficacy" (TSE). Tschannen-Moran and Hoy (2018) defined TSE as a teacher's "judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (p. 783).

Teacher effectiveness studies document the vital role teachers play in student success (Danielson, 2013; Marzano, 2013; Stronge, Ward & Grant, 2011). Additionally, a strong correlation exists between TSE and teacher effectiveness. Bandura (1997) underscored the impact of TSE by tying it to a supportive learning environment, stating: "The task of creating learning environments conducive to the development of cognitive competencies rests heavily on the talents and self-efficacy of teachers" (p. 240).

Statement of the Problem and Significance of the Study

Teacher self-efficacy is an essential component of the complex task of highly effective teaching and, therefore, crucial for student achievement. Additionally, TSE may empower teachers to persevere in the face of external and internal challenges. Certain external factors, such as accountability measures imposed by federal, state, and local governments, may negatively impact TSE (Umhoefer & Hauer, 2011). Self-efficacy may also allow teachers to persevere through internal challenges, such as lack of collegial support (Brouwers, Evers, & Tomic, 2015).

Accountability measures apply external pressure on schools and, in some cases, dictate instructional programming and curriculum (Cronin, Dahlin, Xiang, McCahon, 2009). For example, a 2011 survey of over 1,000 3rd through 12th-grade teachers suggested a narrowing of K-12 curriculum in response to the push for improvements in standardized test scores (Robelen, 2011). Some proponents of increased accountability suggested there is an epidemic of less than effective teachers in our schools (Chait, 2011; Pyhalto, Soini, & Pietarinen, 2010). A misaligned approach to school improvement singularly focused on teacher accountability may inadvertently send messages to teachers about their ability to positively influence student learning – some might even come to believe student success resides outside of their control (Leiter, 1992).

Educators may be entering a potentially destructive cycle in the K-12 educational system. The current teacher shortage in the United States (Passy, 2018), coupled with teacher retention issues, amplifies the need for teachers with a high sense of self-efficacy. School districts must attract and retain highly effective teachers who possess a strong sense of self-efficacy to improve education and student learning outcomes. The convergence between factors that undermine TSE and the failure to attract and retain new talented teachers may feed a negative cycle, which could

be challenging to break. Leaders may help to mitigate the risks of this destructive cycle by supporting the development of TSE in new and veteran teachers.

Another discouraging factor affecting TSE involves the decline of funding for public education based on student needs. Some legislators argue the public school system fails students and use this "failure" as an excuse to divert resources away from public education (Ravitch, 2013). These myriad messages related to school failure and the need for increased accountability may negatively impact TSE (Andrews & Crowther, 2002; Pendergast & Kaplan, 2015).

The preponderance of evidence suggests teacher effectiveness positively affects student learning more than any other in-school variable (Darling-Hammond, 2000; Sanders & Horn, 1998). Bandura (1997) found TSE accounted for at least some of the student achievement success teachers' experience. Because "efficacy beliefs influence how people think, feel, motivate themselves, and act" (Tschannen-Moran & Hoy, 2001), it is imperative to understand the processes by which teachers develop and sustain TSE.

Bandura's (1995) seminal research on self-efficacy illuminated four sources of self-efficacy. These included engaging in mastery experiences, vicariously experiencing examples of self-efficacy through social models, social persuasion, and physiological states sensed while experiencing success. Bandura's work has influenced the design or interpretation of many studies, which support his original findings (Gibson & Dembo, 1984; Hoy & Spero, 2005; Woolfolk-Hoy, 2006). Bandura's research and subsequent related studies reveal the sources and inspiration for self-efficacy, but they do not directly address a process of developing self-efficacy.

Purpose of the Study

In this grounded theory study, I developed a theoretical model explaining the process through which teachers develop self-efficacy at various stages in their careers. Bandura (1995) definitively identified four sources for self-efficacy. Another well-researched aspect of self-efficacy is the role self-reflection plays in the development of efficacious thoughts (Bowles & Pearman, 2017). This relationship, however, opened up a bit of a cart-and-horse dilemma. If self-reflective tendencies are necessary for the development of self-efficacy, how can one develop such tendencies? Self-efficacious individuals appear to be naturally self-reflective because of their understanding of the critical role reflection plays in increasing self-efficacy. Teacher reflection on progress toward self-efficacy is a skill that may be developed and is "a normal process that requires knowledge and practice" (p.8). In my study, I identified sources aiding in the development of self-efficacy and the knowledge as well as related skills correlated with self-efficacy. The process of developing self-efficacy also differed depending on the individual teacher's point in their career development (Tschannen-Moran, Hoy, & Hoy, 1998). I developed a model explaining the process by which teachers develop a sense of self-efficacy at various stages in their careers —a logical next step in operationalizing the benefits of TSE.

Reflexive Statement

I proudly identify as a professional educator. In preparation for this study, I reflected on my various roles as a professional educator over the past two decades. In these roles, I have come to value TSE as a necessary tool for maximizing effectiveness. As a qualitative researcher, I recognized these and other beliefs as potential biases and deliberately avoided introducing these potential biases into my study (Birks & Mills, 2015).

The primary purpose of this study involved uncovering the process by which teachers develop a sense of self-efficacy. In my interviews, I transparently used TSE as a sensitizing concept to orient the participants to the purpose of the study (Patton, 2015). I designed the interview protocol to sensitize the participants to the idea of self-efficacy, but not to any specific process or steps in the process of building self-efficacy. In this way, I allowed any possible processes to emerge through recursive dialogue and analysis.

The concept of self-efficacy influenced my choices related to my professional responsibilities. I have evaluated teachers' performance using structured observation and interview protocols in a professional capacity, and while conducting these evaluations, I used self-efficacy as a lens to analyze various aspects of a teacher's overall performance. I currently oversee the implementation and related professional development for the Educator Effectiveness framework in our district. Educator Effectiveness is the legal mandate for uniformed teacher evaluation in the state of Wisconsin (Department of Public Instruction, 2018). Although the framework clearly defines standards with associated rubrics, indicators, or "look-fors," the system left the development of the indicators to the discretion of district leadership. While developing these indicators, I placed significant value on those related to TSE.

Constructivist grounded theory (CGT) research presented a unique need for reflexivity and a clear understanding of the positionality of the researcher. Constructivist grounded theory is philosophically rooted in the classic grounded theory (GT) framework first explored by Glaser and Strauss (2017). Glaser and Strauss (2017) described the GT approach as, "The discovery [emphasis added] of theory from data systematically obtained from social research." Constructivist grounded theory differs from classic GT in as much as CGT aims to construct a theory, not discover one (Evans, 2013).

As a CGT researcher, I constructed this theory in a social environment. My presence within this social environment is something of which I was constantly vigilant. I have over ten years of experience as a school administrator. My experience as an administrator has been beneficial by providing context and a depth of understanding. I was able to engage more naturally with the participants in my interviews and focus groups. My understanding allowed me to ask probing and responsive questions based on the participants' initial responses.

I was equally aware of potential biases resulting from my years as a teacher and school administrator. I approached my study with a preexisting admiration for teachers who demonstrate the tenacity and professionalism to unwaveringly strive to meet the needs of all of their students. As I began to explore this concept, I came to understand this phenomenon as TSE. I continue to admire teachers who demonstrate TSE. I intentionally resisted my tendency to allow the emotion associated with this admiration to influence my interactions with my study participants.

The grounded theory evolved and emerged through the iterative process with the interview participants. I used constant comparison and theoretical coding to refine the theory (Charmaz, 2014). Throughout this constant comparative process, I needed to ensure my social interactions with the participants do not unduly influence their input. It was also imperative that I recognized my biases and consciously mitigated these biases with careful consideration of the true intent of the participants and their responses. During the data analysis, I continually considered my positionality in this process and ensured the theory emerged from the data and not my preconceived ideas.

Research Questions

I adopted the following question to guide my study: How do teachers develop and sustain self-efficacy related to their role as education professionals? My sub-questions include:

1. What experiences contribute to the growth of TSE?
2. What conditions foster or limit TSE?
3. How does the process of developing and sustaining TSE differ depending on their career stage?

Overview of Chapters

In this study, I explore the process through which teachers develop teacher self-efficacy (TSE) throughout the course of their careers. Chapter One briefly establishes the context of this research topic and explains the importance of TSE for a teacher's effectiveness and well-being. It goes on to introduce the research topic of TSE development and establishes the research problem, purpose, and significance. Chapter One also includes a statement of reflexivity to firmly establish my perspective and potential biases related to this topic.

A review of the content and theoretical literature related to TSE development is provided in Chapter Two. The chapter focuses on the historical background and philosophical underpinnings of TSE and self-efficacy in general. I then explore the components of TSE and the impact of TSE on teaching and learning. Next, next the review of literature related to factors contributing to and inhibiting TSE development are presented. The findings show clearly the link between low TSE and the risk of teacher burnout. Additionally, this chapter delineates the gaps and tensions in the related literature. Chapter Two identifies a significant gap in research on the

ways teachers develop TSE through different career stages. This gap in the literature served as inspiration for the research.

Chapter Three provides a description of the mixed-methods grounded theory (MM-GT) methodology used to conduct the research. The chapter includes a description of traditional grounded theory as well as the value of a mixed-methods approach in conducting research. I describe in detail the MM-GT methodology.stChapter Three ends with a description of the ethical considerations of the study.

The general findings which apply to all teachers regardless of career stage are explained in Chapter Four. This chapter establishes the five dominant themes which describe the way teachers develop TSE. The themes include: self-reflective practices, seeking and valuing feedback, collaboration with colleagues, prioritizing student-relationships, and a commitment to inclusive practices. The chapter about describes the subcategories which provide more context to the way teachers' development of TSE are manifested through these themes.

Chapter Five includes a description of the application of Bandura's (1987) Social Cognitive Theory (SCT) and Mezirow's (1991) Transformative Learning Theory (TLT) to the analysis of the findings from Chapter Four. SCT supports the analysis of the interplay among the interpersonal, intrapersonal, and behavioral aspects of TSE development. TLT provides the theoretical basis for the analysis of the way teachers expand their perspectives and frames of reference to develop and sustain TSE.

Chapter Six consists of a set of findings specific to the career stage of the participants. The same five themes apply to these findings. This chapter includes an explanation of the way teachers across the career span interpret each theme through their professional practice and quest

to develop and maintain TSE. In general, teachers become more focused on students and more motivated by providing their leadership to influence others as they progress through their careers.

A theoretical analysis of the career specific findings is described in Chapter Seven. I adopted Super's (1980) Life-Span - Life Space Theory (LST) and Maslow's (1968) Hierarchy of Needs Theory (HON) to analyze TSE and career stage findings. LST served the specific analysis of the career transitions professionals go through as they gain experience. HON offered the theoretical structure needed to analyze the way the sources of TSE meet the psychological needs of teachers throughout their careers.

Finally, Chapter Eight provides a summary of the findings and describes the implications of my findings for various stakeholders. As this is a grounded theory study, this chapter introduces the Career Stage Teacher Self-Efficacy (CSTS) model as the theory which emerged from the study. CSTS serves as a useful theoretical model to the reveal the process of TSE development throughout a teaching career. This model may be used to support the TSE development of teachers from the perspective of various stakeholders. The stakeholders include teachers, principals, district administrators, teacher preparation programs, and educational policymakers. This final chapter also contains the limitations of my study and recommendations for further research.

Definition of Terms

ACT 10: A controversial bill signed into law by Wisconsin Governor Scott Walker in 2011 (Ford & Ihrke, 2016). ACT 10 significantly reduced the power and influence of teachers' unions by eliminating their right to collectively bargain.

Achievement gap: A difference in student learning results between subgroups of students and the broader student population. For this study, I referred to the term achievement gap as the differences in achievement or growth between subgroups of students identified by the state of Wisconsin as compared to all other students, not part of the specified group. These groups include economically disadvantaged students, students with educational disabilities, English language learners, and non-White students (Department of Public Instruction, 2017).

Accountability measures: Initiatives or mandates designed to measure a school's or teacher's effectiveness. Federal, state, or local authorities may impose such measures.

Career stages: Distinct phases in the life-span of a professional's career. Super's career stage theory consists of five stages: Growth (0-14 years), Exploration (15-24 years), Establishment (25-44 Years), Maintenance (45-64 years), and Decline (65 years +).

Collective efficacy: The degree to which a school staff believes their collaborative efforts can positively impact student outcomes (Donohoo, 2017).

Human agency: The "capacity to exercise control over one's thought processes, motivation, and action" (Bandura, 2006). The concept of human agency places the individual in the role of an agentic driver, one who is not simply controlled by his or her environment but directly influences their environment. Self-efficacy is a mechanism of human agency (Bandura, 1989).

Locus of control: Rotter (1966) coined the term "locus of control." "Locus of control" refers to the degree to which individuals believe they have control over their own lives and goals.

Mastery experiences: One of the four sources of self-efficacy beliefs as outlined by Bandura in 1986. According to Bandura, mastery experiences are the most effective influencer of self-efficacy development. Mastery experiences are those in which the agent has demonstrated a high

level of expertise in a specific task or when attempting to control an element of their environment.

Self-efficacy: Self-efficacy is the belief in one's ability to influence events affecting one's life and control the way these events are experienced (Bandura, 1994). For this study, the terms "self-efficacy," "self-efficacy beliefs," and "perceived self-efficacy" are used interchangeably.

Social Cognitive Theory: Social cognitive theory (SCT) contends people learn from observing others, and some of an individual's knowledge acquisition can be directly attributed to social observation and interaction (Bandura, 1989). Bandura theorizes human agency and self-efficacy can be explained through SCT.

Social persuasion: One of the four sources of self-efficacy beliefs outlined by Bandura in 1986. Bandura posits one can positively effect self-efficacy through the support or encouragement of people deemed influential.

States of physiology: States of physiology describe the four categories in one Bandura's sources of self-efficacy beliefs. These states include moods, physical states, and emotions, which, if positive, can enhance self-efficacy beliefs or, if negative, can decrease these beliefs.

Teacher self-efficacy: Tschannen-Moran and Hoy define TSE as a teacher's "judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (p. 783).

Vicarious experiences: One of the four sources of self-efficacy beliefs defined by Bandura characterized by the agent observing others achieving success in similar situations or circumstances.

CHAPTER 2: REVIEW OF THE LITERATURE

My study is concerned with the processes by which teacher self-efficacy (TSE) is developed at various stages in educators' careers, as TSE plays an influential role in creating conditions for all students to succeed (Bandura, 1997). I conducted a review of scholarly research related to self-efficacy, and, more specifically, TSE, to develop a deeper understanding of how teachers develop self-efficacy. My review began with Bandura's seminal work on self-efficacy (Bandura, 1977, 1994) and continued to contemporary literature specific to TSE (Gibson & Dembo, 1984; Tschannen-Moran, Hoy, & Hoy 2018; Woolfolk-Hoy, 2006). I focused my literature review on studies related to the way teachers develop and sustain self-efficacy related to their role as education professionals. These studies included those focused on experiences contributing to the development of TSE. I also examined studies pertaining to the conditions fostering or inhibiting self-efficacy, and its effects on student learning.

A tremendous amount of research exists regarding the concept of self-efficacy. In total, I reviewed over 80 peer-reviewed studies and four books about self-efficacy and teacher self-efficacy.

This literature review accomplished three goals: (1) to identify empirical research related to my research questions, (2) to locate theoretical literature used to interpret review findings, and (3) to locate the gaps and tensions in existing literature supporting the need for my study. I organized my findings into the following themes: (1) historical development of the concepts related to TSE, (2) the impact of TSE on teaching and learning, (3) factors fostering the development of TSE, (4) factors inhibiting the development of TSE, and (5) differences in the way teachers develop TSE at various career stages. After describing the content review findings,

I described the gaps and tensions in the literature related to TSE. I also summarized the literature concerning two of the theories used to analyze my review findings.

Literature on Self-Efficacy

Historical Development of TSE

Researchers have been advancing our understanding of TSE (Bandura, 1982; Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk-Hoy, 2001). Bandura, a widely respected scholar, propelled the concept of self-efficacy to prominence in the study of human motivation and behavior (Bandura, 1984). His analysis of self-efficacy began with the article "Self-Efficacy: Toward a unifying theory of behavioral change" (Bandura, 1977). Self-efficacy is a personal judgment of how effectively one may carry out the steps necessary to be successful at a given task. Bandura's seminal and ongoing studies of self-efficacy have repeatedly supported the phenomenon of self-efficacy beliefs correlating highly to professional success. Other scholars followed and expanded Bandura's work. I focused my review on scholars who studied TSE. Some notable scholars who significantly contributed to the collective understanding of TSE include Ashton, Buhr & Crocker (1984), Gibson and Dembo (1984), Schwarzer (1992), and Tschannen-Moran and Woolfolk-Hoy (2001). I described their studies after introducing Bandura's work.

Bandura (1977) initially introduced the concept of self-efficacy. Other scholars later advanced knowledge about self-efficacy by conducting empirical studies focusing on specific aspects of self-efficacy. Bandura continued to study self-efficacy and synthesized the work of other scholars in later editions of his books and articles. Bandura contributed to the scholarly literature on self-efficacy by integrating empirical studies with his original findings. For

example, Bandura studied the role of self-efficacy related to student cognitive functioning and found self-efficacy may support students by reducing academic anxieties (Bandura, 1997).

To further define self-efficacy in educational settings, Tschannen-Moran and Woolfolk-Hoy developed a widely accepted definition of TSE: "A teacher's judgment of his or her ability to positively impact engagement and learning for all students regardless of the challenges they may present" (2001, p.783). According to Bandura (1997), one can best understand self-efficacy in the specific context in which the subject operates. He further explained measures of general efficacy are not necessarily indicative of context-specific self-efficacy. For example, an individual may have a high level of self-efficacy related to one or more aspects of performance but may not be successful in another aspect. Context-specific efficacy applies to educational settings, including the multiple facets of a teacher's abilities. Bandura returned to the idea of teacher self-efficacy as part of his description of the role of self-efficacy related to cognitive functioning (1997).

In a widely cited study, Gibson and Dembo (1984) conducted highly detailed and specific studies of teaching, breaking down the various actions associated with TSE. This level of specificity emerged as an extension of Bandura's (1977) work. Gibson and Dembo (1984) discovered teachers with high TSE tended to provide more equitable feedback to students regardless of student characteristics, such as background, achievement, or IQ. The feedback from these high-TSE teachers consistently reinforced high expectations for all students. These types of actionable findings have been common from the late 1970s to the present. Due to this work and the expanded understanding of self-efficacy, TSE has remained at the center of conversations regarding teacher effectiveness and support (Zee & Koomen, 2016).

While understanding the history of TSE is important, many researchers have focused on direct impact, exploring the relationship between TSE and student learning. In recent years, researchers developed tools to measure TSE (Ashton, Buhr & Crocker, 1984; Gibson & Dembo, 1984). Tschannen-Moran and Woolfolk-Hoy, pioneers in the area of TSE, developed a promising tool to measure TSE (Tschannen-Moran & Woolfolk-Hoy, 2001). These researchers examined several existing methods of measuring TSE and developed a comprehensive tool used extensively to this day (Cavus & Ercag 2016; Holzberger, Philipp, & Kunter, 2013; Kass, 2015; Stipek, 2012). Many researchers conducted studies using Tschannen-Moran and Woolfolk-Hoy's TSE instrument. Others used additional tools to examine different variables and study multidimensional correlations (de Jong, Mainhard, Tartwijk, Veldman, Verloop, & Wubbles, 2014; Sezgin & Erdogan, 2015; Turkoglu, Cansoy, & Parlar, 2017). For example, Turkoglu, Cansoy, and Parlar conducted a multivariate correlation study using Tschannen-Moran and Woolfolk-Hoy's (2011) TSE instrument in conjunction with Balci's Job Satisfaction Scale. The researchers found varying degrees of correlation between each TSE dimension and job satisfaction. In this study, TSE accounted for nine percent of the variance in the measure of job satisfaction TSE played had an even stronger impact on job satisfaction than salary, working conditions, and promotion opportunities, which accounted for six percent (p.769). These studies indicate a trend of developing tools to measure the relationship between TSE and other school-related phenomena.

Bandura's Four Sources of Self-Efficacy

Bandura (1985) identified four sources of self-efficacy. These included: mastery experiences, vicarious experiences, social persuasion, and physiological or emotional states. When individuals consistently perform a task well, they may increase self-efficacy because of

the results of a “mastery experience.” Vicarious experiences are those in which the participant witnesses the process and change in others who have developed a sense of mastery. Social persuasion includes mentoring and coaching experiences in which participants are persuaded to believe in their ability to accomplish a task. Emotional or physiological states describe internal experiences that create feelings that encourage participants to believe in themselves and their abilities (Bandura, 1995). Bandura found all these sources may lead to increases in self-efficacy, individually or in combination with one another. Bandura originally described his four sources of self-efficacy irrespective of context, but as scholars expanded on Bandura’s seminal work, they commonly focused on context-specific applications of the four sources. Many researchers have applied the logic of Bandura’s four sources to TSE (Acka, Ulutas, Bileck, 2018; Cayirdag, 2016; Wyatt, 2015). Some researchers explicitly mentioned Bandura’s four sources. For example, Erdem and Demirel (2007) noted the important role the four sources of self-efficacy played in their study. In some cases, sources of self-efficacy may be used in a study but not named as part of Bandura’s original work, likely due to the large acceptance of ideas associated with self-efficacy (Turkoglu, Cansoy & Parlor, 2017).

Bandura (1997) turned the focus of his self-efficacy theory to teacher-specific applications later in his career. Bandura named social modeling and mastery experiences as specific sources of self-efficacy applicable to teachers. He advocated for increasing TSE by engaging teachers in professional development and leadership activities, such as modeling strong instruction (Bandura, 1997). Cansoy and Parlor (2018) expanded on this concept, identifying the development of social norms to reinforce the impact of quality teaching on student outcomes as a specific means of increasing TSE through social persuasion. Bandura (1987) found engaging in mastery experiences is one of the strongest sources of self-efficacy. Because of the complexity of

teaching, developing a sense of mastery may be challenging. Reflective strategies help teachers understand their impact and may increase TSE.

Wyatt (2016) conducted a study aimed at developing an alternate model to Tschannen-Moran and Woolfolk-Hoy's (2001) dominant TSE model. Wyatt was specifically concerned with the relationship between reflective practices and TSE. In this study, Wyatt highlighted many specific practices that support teacher reflection and subsequently increased TSE, such as analyzing the coursebook, adapting materials, or justifying pedagogical decisions. These practices are closely related to Bandura's "mastery experience" source as the reflective practices are strategically designed to provide teachers with tangible strategies to improve student learning, thus breaking down the highly complex task of teaching into subcomponents, which can be perceived to be "mastered."

Instructional coaching is highly beneficial to the development of TSE (Knight, 2007). Instructional coaching primarily involves two of Bandura's four sources, namely social modeling, and mastery experience. In Knight 2007 book, *Instructional Coaching: A Partnership Approach to Improving Instruction*, he described essential components of instructional coaching. According to Knight, instructional coaches model effective strategies and support teachers in their effort to master these strategies. Reflective practice during the action and after, allows coaches and teachers to learn from this "mastery" experience using deep guided reflection (Schidler, 2009). The modeling portion of the instructional coaching cycle directly aligns with the social modeling source Bandura identified.

Researchers have found guided practice combined with reflection generates mastery experiences (Bandura, 1987; Schidler, 2009). In one study, mastery experience coaching was found to have an even more significant positive impact on TSE when compared to other styles of

peer coaching (Goker, 2006). Goker found peer coaching focused on reflection and self-efficacy benefited both the peer coach and the coached teacher, ultimately resulting in higher self-efficacy for both parties. For example, Goker found pre-service teachers who experienced peer coaching increased perceived self-efficacy at a rate 44 percent greater than those who only received coaching from authority figures (p. 248). Scholars advanced the work associated with Bandura's original four sources of self-efficacy by identifying components associated with TSE.

Components of TSE

As described previously, self-efficacy is context and skill-specific: teachers may not be equally efficacious in two different settings with two different tasks. Teacher self-efficacy is made up of teachers' personal self-efficacy and their knowledge and skills associated with effective teaching (Bandura, 1993). Scholars have since expanded on the components of TSE moving beyond Bandura's general categories.

Researchers disaggregated the components of TSE and studied ways to apply research to increase TSE. For example, Tschannen-Moran and Woolfolk-Hoy (2001) refined measurement tools to focus on different perspectives of TSE. They developed a tool to measure general TSE as well as three subcomponents: student engagement, instructional strategies, and classroom management. Since then, many scholars analyzed their findings using the three subcomponents previously defined by Tschannen-Moran and Woolfolk-Hoy (2001).

Hattie's examination of over 1400 meta-analysis and over 80,000 studies have offered even more credence to the importance of TSE to the learning process. Hattie grouped the factors found to impact student learning into four domains: school effects, student effects, curricula effects, and teacher effects. Of the teacher effects, several of the highest-ranking factors directly align indicators of TSE identified in the Tschannen-Moran and Woolfolk-Hoy TSE scale (2001).

For example, Hattie found feedback to have an effect size of .73 while five of the twenty-four items on the Tschannen-Moran and Woolfolk-Hoy instrument deal directly with feedback.

Many studies have examined the relationship between student engagement and TSE. One study demonstrated a negative correlation between student engagement TSE and student age for students who exhibited externalizing behaviors ($B = -.11$, $p < .01$) (Zee, de Jong, & Koomen, 2016, p. 1019). Essentially, these researchers found teachers of younger students maintained their TSE related to their ability to keep students engaged when the students exhibited challenging behavior. On the other hand, teachers of older students found their TSE related to student engagement negatively impacted when students exhibited challenging behavior.

Another study found no significant difference in the influence of TSE on student engagement dependent on student gender among teachers with high TSE (Shaukat & Iqbal, 2012). In this same study, however, the research revealed a counterintuitive finding temporary (or substitute) teachers with high TSE had more of an impact on student engagement than permanent teachers with high TSE. The short-term assignment required teachers to rapidly engage students in learning to maximize their impact on student learning.

Scholars have specifically examined the relationship between TSE and classroom management (Brouwers & Tomic, 1999; Woolfolk-Hoy & Spero, 2005). One study found specific and focused training related to encouraging prosocial behavior increased classroom-management TSE (Tsoulopoupas, Carson, Matthews, Grawitch & Barber, 2010). This study found teachers who lacked the classroom management strand of TSE were susceptible to emotional exhaustion and could ultimately leave the profession. The authors suggested professional development for teachers on how to efficiently address student misbehavior and to explicitly address the connection between TSE and classroom management.

Brouwers and Tomic uncovered a cyclical relationship between TSE and classroom management. They found teachers with higher TSE had fewer classroom-management issues (Brouwers & Tomic, 2000). Less efficacious teachers experience reduced TSE as they attempt to improve the learning environment in their classrooms. Brouwers and Tomic explained the role two of Bandura's four sources at play in the cyclical relationship between TSE and classroom management. Teachers who were emotionally exhausted due to disruptive classroom behaviors are less likely to engage in mastery experiences, thus decreasing the likelihood of increased TSE. Bandura's (1977) physiological state source also came into play. The emotional exhaustion associated with managing disruptive behaviors correlates with the classroom management component of TSE. This emotional exhaustion then served as a factor associated with the decrease in TSE in its own right by generating a negative physiological state, thus connecting with Bandura (1977), finding negative physiological states may negatively impact TSE.

Researchers also explored the multivariate relationship between the subcomponents of TSE (Zee, Koomen, Jellesma, Geerlings & de Jong, 2016). In this particular investigation, researchers found the highest correlation (.98) between student engagement and instructional strategies (p.48). While researchers like Zee, Koomen, Jellesma, Geerlings, and de Jong discovered a correlation among certain aspects of TSE, others found a lack of correlation between each subcomponent and assumed correlates. For example, one study revealed no substantial correlation between the subcomponents of TSE and teacher-student relationships (de Jong et al., 2014). Their findings were counter to the assumptions the researchers initially made and points to the fact TSE is quite especially like to and not fully understood. I have found in my review of relevant literature, many studies that explored the relationships among the various

subcomponents of TSE. In the next section, I focused on studies that examined the impact of TSE and the subcomponents on teaching and learning.

Impact of TSE on Teaching and Learning

A study by the Rand Corporation in 1976 first raised the topic of the relationship between self-efficacy and teacher success during a large-scale study of teacher effectiveness (Henson, 2011). Since then, numerous scholars examined this critical relationship. The majority of the studies reviewed concerned the relationship of TSE on the teachers and their teaching practice but not necessarily student achievement and growth (Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk-Hoy, 2001; Zee & Koomen, 2016). Because TSE is truly a construct based on self-perception, many of the studies have correlated TSE to perceptions about teachers and teaching. One study found both teachers and students perceived higher levels of teacher effectiveness in teachers who possessed high levels of TSE (Holzberger, Philipp, & Kunter, 2013). The authors, however, were cautious drawing conclusions because deeper analysis found little correlation between a teacher's self-efficacy beliefs in one year with their instructional quality the following year.

Another study examining student inspiration found highly efficacious teachers identified ways to inspire student creativity even in high-accountability settings (Cayirdag, 2017). In this study, Cayirdag also controlled for internal versus external locus of control among teachers. Locus of control describes the degree people believe they have control over outcomes in their life (Rotter, 1966). Cayirdag found teachers with an internal locus of control coupled with high creative self-efficacy were most likely to foster student creativity and to engage in student-centered learning. Additionally, Cayirdag found years of experience negatively correlated with the fostering of student creativity. Cayridag suggested professional learning associated with

creative self-efficacy of teachers should address the needs of teachers at various stages in their careers. As is the case with the Cayirdag study, many of the studies I reviewed focused on the impact of TSE on student and teachers' perceptions, not student learning results. Some researchers, however, turned their attention to the impact of TSE on student academic achievement.

In one such study, researchers found TSE exerted a more significant impact on fifth-grade student literacy outcomes than even teacher education and experience (Guo, Connor, Yang, Roehrig, & Morrison, 2018). The authors of this study asserted TSE indirectly impacted student learning through classroom practices. Essentially, teachers with higher TSE "were more likely to provide a classroom environment that supported learning" (p.16). Another study found teachers with high perceived levels of self-efficacy create warmer and more inclusive environments, and elementary school students experienced higher levels of academic growth as a result (Caprara, Barbaranelli, Steca, & Malone, 2006). However, these factors were revealed to have less impact on achievement for secondary school students.

Some researchers found more general connections between TSE and student achievement, but the net effect remained insignificant. In a synthesis of 40 years of literature on TSE, Zee and Koomen found only 27 of the 199 studies they examined dealt directly with the link between TSE and student achievement. They found only a general correlation between student achievement and TSE in those 27 studies (Zee & Koomen, 2016). The authors of this study noted a more thorough examination in related literature of phenomena such as classroom procedures and classroom management strategies as opposed to student academic outcomes.

One interesting study examined the relationship between some variables, including student academic performance, job satisfaction, and student's previous academic achievement.

(Caprara, Barbaranelli, Steca, & Malone, 2006). These scholars found previous student achievement correlated with teachers' sense of self-efficacy but not job satisfaction. They also found job satisfaction had little impact on student outcomes. However, they found TSE positively correlated with student outcomes. This correlation suggested student characteristics, in this case, previous achievement, may influence the development of TSE while TSE may influence job satisfaction, but the findings did not support the inverse. Job satisfaction, by itself, was found to be less impactful than perceived teacher competence. This study serves as an example of the challenges of identifying a causal relationship between two phenomena as complex as TSE and student learning. Subsequently, there has been ample research illustrating the impact of TSE on certain student characteristics previously demonstrated to positively influence student learning.

Gibson and Dembo (1984) determined teachers with high levels of self-efficacy are better equipped to support students in dealing with failure. They studied the relationship between TSE and two observable teacher characteristics: academic focus and feedback behaviors. They found high TSE teachers spent very little time on non-academic tasks. For example, the authors found high TSE teachers allocated double the amount of time on whole group instruction than their low TSE counterparts (p. 578). Gibson and Dembo cautiously suggested feedback patterns to students from high TSE teachers tended to focus on higher expectations for student learning than low TSE teachers, but the authors suggested more research with larger sample sizes would be important before drawing conclusions. Other researchers have turned their attention to the contributing factors of TSE, such as job satisfaction or parent and student feedback. These factors clarified and expanded upon our understanding of ways in which variables other than Bandura's (1985) four sources impact TSE.

Factors Fostering the Development of TSE

Bandura definitively identified four sources of self-efficacy in his groundbreaking research conducted in 1977. He later modified the terms and definitions associated with self-efficacy, but the four sources remain virtually unaltered (Bandura, 1995). Since Bandura identified the sources of TSE, researchers in the education field have studied specific avenues for teachers to access these four sources as well as how different sources affect the development of TSE. Researchers who have taken on the challenge of examining factors related to TSE have attempted to offer specific context to Bandura's previously context-agnostic four sources for self-efficacy.

Several factors have been demonstrated to predict TSE consistently and accurately, including self-esteem and an internal locus of control (Sahin, 2017; Akca, Ulutas, and Yabanci, 2018). For example, Sahin (2017) demonstrated a correlation between TSE and teacher well-being, sociability, and self-esteem. From an affective perspective, Sahin also found teachers with high TSE were more likely to have a stronger sense of well-being and subsequently more able to create a warm and supportive learning environment. Sahin specifically suggested including professional development related to emotional intelligence for preservice teachers as a means to increase TSE.

Akca, Ulutas, and Yabanci (2018) studied the effect of a multitude of cultural variables such as religion, gender, and mobility along with locus of control on TSE. Locus of control describes the degree to which individuals believe they have control over their lives (Rotter, 1966). Acka, Ulutas, and Yabanci found a positive correlation (.447) between internal locus of control and self-efficacy while analyzing all of the participants regardless of cultural

characteristics (p. 227). Ashagi and Beheshtifar's (2015) study corroborated the positive correlation between an internal locus of control and self-efficacy.

Researchers have also demonstrably linked TSE to concepts such as academic optimism and hope (Sezgin & Erdogan, 2015). Sezgin and Erdogan studied the relationship among optimism, hope, and zest for work as well as the predictive nature of these three constructs on TSE. Sezgin and Erdogan found all three of these constructs significantly correlated with TSE, with academic optimism being the highest (.56) and zest for work was the lowest (.50, p.13).

Some researchers have taken a pragmatic approach to TSE and examined the relationship between TSE and job satisfaction. It has become increasingly important for school district leaders to focus on teachers' job satisfaction, as the teacher shortage is increasing and affecting a growing number of teaching licensure areas (Passy, 2018). Some studies have demonstrated a correlation between aspects of TSE and job satisfaction and, in some cases, found high TSE to be predictive of job satisfaction (Skaalvik & Skaalvik, 2010; Turkoglu, Cansoy, & Parlar, 2017). Turkoglu, Cansoy, and Parlar (2017) found TS more highly correlated with job satisfaction than even salary. These authors went further in their analysis, finding self-efficacy specifically related to student participation to be the most predictive of job satisfaction. The authors suggested this strong correlation was a result of the perceived importance of student engagement by teachers. These types of pragmatic results may inform human resource management in schools.

Researchers also examined the ways leadership and support for teachers impact TSE (Fackler & Malmberg 2016; Walker & Carr-Stewart, 2006). Fackler and Malmberg found the experience of the principal and the principal's feedback related to specific instructional strategies to be the most predictive of TSE. Another group of scholars supported this finding. They found principals who focus on instructional leadership with clear feedback for teachers have a positive

impact on TSE (Calik, Sezgin, Kavgaci & Kilinc, 2012). Leaders who support the development of TSE may prove pivotal for specific subgroups of teachers, such as instructional coaches or aspiring principals (Walker & Carr-Stewart, 2006). A positive and empowering principal may also have an especially powerful impact on the development of the TSE of women teachers (Kass, 2015). Additionally, Cansoy and Parlor found strong principals and teachers with high TSE may together foster collective efficacy, a concept I explore in more depth in a subsequent section (Turkoglu, Cansoy, & Parlor, 2017).

Certain potentially positive influences on TSE may seem contradictory to assumptions held in the field. Some researchers have come to surprising conclusions regarding positive influences on TSE, while others have uncovered factors directly inhibiting TSE. For example, teacher evaluation processes related to instructional leadership were found to positively impact an individual teacher's TSE (Calik, Sezgin, Kavgaci, & Kilinc, 2012). This assertion must be interpreted cautiously, as another study found teacher evaluation to be part of burdensome accountability structures, which may decrease TSE (Umhoefer & Hauer, 2011). Stipek (2012) came to two fascinating conclusions relating to TSE, which may initially seem counterintuitive: teachers who serve more racially or economically diverse groups of students tend to have higher levels of TSE while working with students receiving special education services may negatively impact TSE. The connection between TSE and reaching traditionally marginalized students is particularly important when considering efforts to reduce achievement gaps for students, which are especially alarming in Wisconsin and Minnesota, where this study has taken place (Beck, 2013). Just as it is important to understand factors supporting the development of TSE, it is important to understand the converse. In the next section of my review, I explored literature related to factors limiting the development of TSE.

Factors Inhibiting the Development of TSE

Some scholars have turned their attention to identifying factors that negatively impact TSE. For example, Woolfolk-Hoy and Spero (2005) found TSE was lower for first-year teachers than student teachers. They found novice teachers engaged in "self-protective strategies lowering their standards" for students (p. 353). In this same study, they found lower SES classrooms correlated with lower TSE. This finding is contrary to Stipek's finding, which indicated teachers working with lower SES populations might support higher levels of TSE (Stipek, 2012). Woolfolk-Hoy and Spero (2005), similar to Stipek (2012), found support from administrators may mitigate potential negative impacts on TSE.

As mentioned above, Stipek (2012) illuminated a more disturbing potential mitigator of TSE by finding a negative correlation between general-education teachers working with students who have disabilities and TSE. However, another study demonstrated special educators to have higher levels of TSE than their general-education counterparts (Ekstam, Korhonen, Linnanmaki, & Aunio, 2017). The authors attributed the higher TSE of special educators to specific training they received designed to diagnose student learning challenges and to create personalized learning experiences to address any deficits.

Guskey (1987) has explored context variables related to TSE. One of the most interesting aspects of Guskey's findings was the relationship between TSE and the whole class versus individual student differences. Guskey's study in 1987 revealed only minor differences in the way teachers perceive their efficacy related to positive student performance. On the other hand, he found teachers assume more responsibility for the poor performance of an entire class than individual students. Teachers in this study attributed the poor performance of individual students to factors outside their control and, thus, not their own efficacy. Other researchers have come to

contradictory conclusions concerning positive performance and its impact on perceived self-efficacy. One such study discovered a positive relationship between instructional quality and TSE based on teacher perception but only in relation to positive outcomes, not negative outcomes. (Holzberger, Philipp, & Kunter, 2013).

In some cases, inhibitors of TSE affect certain teachers more than others. From a feminist perspective, women teachers may face unique limiters to TSE. One study found negative experiences as a child and experiences in a school may both negatively impact TSE development (Kass, 2015). Specifically, Kass found women teachers whose voices were silenced in their childhood found it difficult to find their voice as teachers. Kass also found women teachers faced unique challenges in school settings related to TSE development. For example, covert or overt mechanisms to silence women teachers were found to have a negative impact on TSE development.

New teachers are also susceptible to unique and unintentional attacks on their TSE. In 2008, Yost found teachers who lacked opportunities to learn from mentors who could model effective teaching were less likely to develop TSE. These mitigators to the development of TSE may be detrimental to teachers and students. In the next section, I discussed some of the potential risks of low TSE.

Low TSE and Teacher Burnout

One of the greatest risks associated with low TSE is teacher burnout. When a teacher has a poor sense of their own ability to meet the needs of students, negative outcomes may result. For example, researchers discovered a correlation between low TSE and pessimism about students' abilities (Kass, 2015). Low TSE may lead to exhaustion, a sense of helplessness, stress, and eventual burnout (Skaalvik & Skaalvik, 2010). Burnout is a gradually occurring

phenomenon in which prolonged and significant stress builds up, resulting in feelings of pessimism and helplessness (Pietarinen, Pyhalto, Soini & Salmela-Aro, 2013). Teacher self-efficacy has been demonstrated to have a positive effect on mitigating teacher burnout (Zee & Koomen, 2016).

High TSE educators who believe in their capabilities tend to use more diverse instructional strategies and change their goals according to students' needs (Zee & Koomen, 2016). These researchers found veteran teachers to be more positive about the implementation of innovative instructional strategies. This student focus and positivity correlated directly with fewer symptoms of teacher burnout. Conversely, these researchers found low TSE teachers to be less willing to embrace innovative strategies aimed to meet the individual needs of students.

Teachers may experience the precursors of burnout early in their careers or even during their pre-service experiences (Hultell, Melin & Gustavsson, 2013). Programs designed to teach pre-service and initial educator self-regulation and co-regulation strategies may reduce signs of burnout. These same strategies have been found to support the development of TSE (Pietarinen, Pyhalto, Soini & Salmela-Aro, 2013). As I explore in greater detail in the section on gaps and tension in the current TSE literature, some evidence suggests significantly elevated TSE also correlates to teacher burnout (Skaalvik & Skaalvik, 2010). External factors may also impact TSE. One such factor is the increasing prevalence of high accountability structures for teachers.

The Impact of Teacher Accountability on TSE

I was originally attracted to the topic of TSE as I was contemplating the impact of sweeping teacher-accountability measures in Wisconsin on teachers and students. Although the available works related to teacher accountability are limited, I felt it was important to include in my review of the pertinent literature. Berryhill, Linney, and Fromewick (2009) have found, in

some cases, accountability measures negatively impacted teacher well-being. In the same study, they found accountability measures tied to standardized tests negatively impacted TSE. They went on to hypothesize that many factors outside a teacher's control impacted standardized testing outcomes rendering them unrelated to TSE. In essence, they argued high-stakes accountability measures might spur a self-fulfilling prophecy indirectly damaging a teacher's effectiveness. This lower TSE may subsequently lead to poorer student performance. Other researchers have discovered supporting evidence indicating teacher accountability measures may have a negative impact on teachers. In 1991, Farber found high-accountability educational settings tend to have higher levels of teacher burnout.

Certain trends in teacher accountability, such as value-added teacher evaluation, have helped mitigate the potential damage associated with high-stakes accountability measures. The term "value-added" concerning teacher accountability refers to measures that take student demographic and academic differences into account when evaluating a teacher's performance (Harris, 2011). These models have demonstrated some level of success in reducing the stress placed upon teachers, but Harris found the actual impact on student learning and educational improvement to be negligible (2011).

Another trend in accountability that has helped mitigate potential decreases in TSE was a focus on the work of the teacher, not the outcomes of the students. Schrag (1995) found peer coaching, strong feedback, and accountability based on observable teacher behaviors improved teacher perceptions of their abilities to meet the needs of their students. Fullan (2016) suggested the widespread reliance on high-stakes accountability measures without appropriate support structures for teachers has negatively affected teacher efficacy. Some research has indicated highly efficacious teachers may rise above the perceived limitations of high-accountability

settings. Cayridag's 2017 analysis of a teacher's ability to both teach creatively and teach creativity in high-accountability settings revealed high levels of self-efficacy might mitigate some of the perceived challenges of meeting student needs in overly bureaucratic or controlled teaching environments.

While some factors related to TSE have strong similarities across many teaching contexts, other factors may affect teachers very differently (Bandura, 1995). These differences lead to an important theme that emerged in my review of the pertinent literature: teachers develop TSE very differently depending on their career stage (Yost, 2008).

TSE and Teacher Career Stages

A pre-service teacher has very different needs than a 30-year veteran, and these differences apply to developing self-efficacy. Teachers at different stages in their careers follow different patterns in their TSE development. Scholars have discovered TSE naturally fluctuates throughout a teacher's career. According to Woolfolk-Hoy and Spero (2005), TSE generally rises during pre-service years but falls during the first few years of teaching, when the demands of the classroom present unanticipated challenges.

Some studies have suggested implementing programs to aid pre-service teachers while supporting their TSE development. Martins, Costa, and Onofre (2018) found practicum experiences rich in lesson planning, observation, and reflection correlated with higher levels of TSE in pre-service teachers. Another investigation strongly supported the importance of Bandura's vicarious source of self-efficacy for pre-service by finding a sense of community, cooperation, and personally meaningful experiences supported pre-service TSE (Meristo, Ljalikova & Lofstrom, 2013). Not all assumed predictors of TSE for pre-service teachers were confirmed, however. One group of researchers, studying predictors of student-teacher

relationships in pre-service teachers, hypothesized TSE would positively correlate with student-teacher relationships. They found instead, perceptions of TSE were not related to perceptions of student-teacher relationships (de Jong et al., 2014).

High-quality mentoring programs may generate a reciprocal benefit for both new teachers and veterans alike. Mentors may support new teachers in developing self-efficacy while developing their own self-efficacy by discovering hidden leadership talent (Yost, 2008). For some veteran teachers, their career path led them to a principalship, at which point leadership dynamics shifted from teacher-student to principal–teacher. One study showed TSE to be a predictor of success in this shift (Walker & Carr-Stewart, 2006). Walker and Carr-Stewart recommended "sense-making" support for new teachers to help them develop reflective skills, which may subsequently support TSE development.

Studies have demonstrated a teacher's level of experience may impact TSE in some aspects of teaching but not others. Shoulders, Krie, and Scott (2015) found teachers with master's degrees and more experience to have higher instructional-strategies and classroom-management TSE but discovered no correlation between experience and student-engagement TSE. In other words, work experience factors related to TSE may impact a teacher in certain contexts but not others. These findings directly align with Bandura's (1989) assertion stating self-efficacy is context and task-specific. One interesting study found a positive correlation between pre-service teachers' level of perceived TSE and that of their cooperating veteran teacher (de Jong et al., 2014). This study confirmed teachers' level of self-efficacy might impact the perceived self-efficacy of others. These findings related to how teachers may impact each other's TSE has led to an interest in the potential impact of a group of teachers' aggregated

perceived efficacy, otherwise known as collective efficacy. In the next section, I explore this phenomenon of "collective-efficacy."

Collective Efficacy

Collective efficacy is an increasingly prevalent topic in the growing body of literature on TSE. Donohoo (2017) described collective efficacy as a scenario in which school staff believes their collaborative efforts may positively impact student outcomes. Fullan stressed the importance of focusing change efforts on teams of teachers, not individual ones. He proposes lasting and impactful change for students may be sustained only through collective efforts. Fullan (2016) suggested four conditions are essential for the creation of collective efficacy: transparency in practice and results, a non-judgmental mindset, instructional specificity, and clarity of evidence related to student learning.

Recent studies have indicated collective efficacy may be more predictive of student outcomes than individual TSE (Calik, Sezgin, Kavgaci, & Kilinc, 2012). Collective efficacy is a measure of a group's perceived level of power to bring about desired change and accordingly may be impacted by large group professional learning opportunities (Turkoglu, Cansoy & Parlar, 2017). Donohoo (2017) demonstrated peer coaching to be an effective structure to increase collective efficacy; specifically, peer coaching including co-planning, observation, co-analysis of data, and co-reflection. Simple strategies, such as opening up space for dialogue among teachers, have also been shown to positively impact collective efficacy (Lim & Eo, 2014).

Hattie (2016) cited collective teacher efficacy as the "new number one" factor positively influencing student performance with an effect size of 1.57. Collective efficacy was found to have more than three times more impactful on student learning than socioeconomic status

(Donohoo, Hattie, & Eells, 2018). Interestingly, according to Hattie's research, student self-efficacy also has a strong impact with an effect size of 0.92.

Instructional leadership is vital in the development of collective efficacy. Recent research has suggested teacher evaluation processes may support *individual* efficacy while teacher professional development correlated to increased *collective* efficacy (Calik, Sezgin, Kavgaci, Kilinc, 2012). Cansoy and Parlor (2017), for example, found strong school leadership coupled with high individual TSE may generate collective efficacy. Conversely, Goddard and Goddard's 2001 results indicated collective efficacy might positively impact individual TSE. Although researchers have extensively explored TSE, some elements would benefit from further study and clarification. In the next section, I explore gaps and tensions in the literature related to TSE.

Gaps and Tensions in the Literature

One of the most foundational tensions in the related literature is the questioning of the legitimacy of self-efficacy as a unique theory distinguished from the more general outcome expectation theories (Marzillier & Eastman, 1984). Bandura (1984) specifically responded to this critique and reiterated the role of social and cognitive factors related to self-efficacy. He argued Marzillier and Eastman presented an overly simplistic summation of self-efficacy. This argument has spurred a series of critiques and rebuttals regarding the value of self-efficacy theory (Williams, 2010).

One prominent tension in the literature regarding TSE is the question of the universal benefits of self-efficacy. Specifically, some researchers have found risks associated with amplified TSE. For example, in their previously cited 2010 study, Skaalvik and Skaalvik found teacher autonomy correlated positively with TSE. However, they also found high levels of TSE

coupled with autonomy, may lead to teacher burnout by creating unrealistic expectations in high TSE teachers.

A more common question related to self-efficacy is its individual potency in shaping desired outcomes. Chen (2012), while examining core self-evaluations, has suggested there are some key judgments people make about themselves that shape and influence intended outcomes. Furthermore, core self-evaluation theory explains these evaluations work in conjunction with one another. Generalized self-efficacy is only one of the reflexive key judgments people make, and core self-evaluation theory proposes self-efficacy in and of itself is not as predictive of outcomes as the aggregate core self-evaluation (Judge, Locke, Durham & Kluger, 1988).

Some scholars have called into question the conceptualization and measurement of TSE. The Tschannen-Moran and Woolfolk-Hoy model of TSE is widely accepted. Scholar cited the Tschannen-Moran and Woolfolk-Hoy model of TSE in 34 of the 89 articles I reviewed. Wyatt (2015), one critic, has created an alternative model of TSE development he felt was more inclusive of the entirety of the teaching experience.

Although there is substantial literature on the TSE of pre-service and novice teachers (Martins, Costa, & Onofre, 2018; Meristo, Ljalikova, & Lofstrom, 2013; Zee & Koomen, 2016), there is a lack of scholarly literature pertaining to the TSE of veteran teachers. Some researchers have explored general patterns in the development of TSE throughout teaching careers but have not specifically addressed developing TSE in veteran teachers (Meristo, Ljalikova, Lofstrom, 2013). Woolfolk-Hoy has specifically recommended further investigation into TSE development throughout various stages of a teacher's career (Woolfolk-Hoy, 2001; Woolfolk-Hoy & Spero, 2005). I next present the two theories I used to analyze the literature about TSE the role career stages play in the development of TSE. These theories are Bandura's Social Cognitive Theory

(SCT; 1977) and Super's Life Space-Life Span Theory (LST; 1980). I also used these two theories to analyze the data I collected throughout my study.

Theoretical Frameworks

Analytical theories serve as conceptual models to clarify findings in a quantitative study (Maxwell & Chmiel, 2014). I adopted three substantive theories to describe and explain the emergent concepts in my study on TSE (Maxwell, 2011). I adopted Bandura's (1987) SCT because the social and cognitive aspects of the human learning process are so integral to teaching. I applied SCT theory to my analysis of the processes associated with the development of TSE.

I also used Super's (1983) Life-Span Life Space Theory (LST) because of the focus on career stages. Super defined four stages in a typical career: exploration, establishment, maintenance, and decline. I used this theory to describe and explain the variation in the way certain factors enhance or limit self-efficacy at various stages of a teaching career. For example, some factors influencing TSE at an early stage may not produce greater TSE at a later stage.

I relied on Mezirow's Transformative Learning Theory (TLT) (1996). TLT strives to describe the way adult learners make meaning of their world. Mezirow defined learning as "the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience in order to guide future action" (Mezirow, 1996, location No. 217). Mezirow inductively identified ten steps that lead to transformative learning. Mezirow describes the mechanisms by which we interpret information as frames of reference. These frames of reference consist of two types. The first is a "habit of mind," which are broad assumptions we use to process our experiences. The second type is a "point of view," which can be fixed or permeable (Mezirow, 1996). Mezirow asserted that the goal of transformative learning is to question and

transform these frames of reference (Mezirow, 2018). I used TLT to analyze the depth of the learning experienced by participants in their TSE development process. Additionally, TLT served to explain further the individual experiences participants identified as contributors to their TSE.

Finally, I used Maslow's (1968) Hierarchy of Needs (HON) to explain the relationship between motivation and changes in factors contributing to TSE through a teacher's career. Maslow established a hierarchy of needs that explains how people are motivated by either a deficit of low-level needs or the draw toward higher-level needs (2018). These needs include survival, safety, belonging, esteem, and self-actualization (Maslow, 1968a).

Social Cognitive Theory

SCT asserts learning does not occur in a personal vacuum but instead, through observation and engagement in a social setting (Bandura, 1987; Frey, 2018). Bandura (2001) frames SCT as an "agentic" theory, meaning SCT exists within the realm of human agency. Bandura posits human agency exists in three distinct and modalities: personal, by proxy, and social (Bandura, 2001). Behaviorally speaking, Bandura (1986) uses SCT to explain how personal, behavioral, and environmental factors influence human behavior. These factors all interact reciprocally to influence human behavior.

Self-efficacy serves as the cornerstone of human agency and the belief-based factor in SCT (Bandura, 1997). Behavioral, cognitive, and environmental factors likely account for many of the variables affecting the development of self-efficacy. SCT explains how these three separate influences work reciprocally to influence human behavior and, more specifically, how they influence self-efficacy (Schunk, 2012).

The three corners of this triad are personal, behavioral, and social or environmental. These three influences work reciprocally and in conjunction with one another (Bandura, 1989). In SCT, learning occurs when the agent takes action or observes others, contradicting the tenets of strict behavioral theories. Behaviorists stress the role of consequences as reinforcements or punishments related to behavior (Skinner, 2011). SCT, on the other hand, describes consequences as informing behavior through feedback. This feedback helps individuals determine whether they are performing well on any given task (Schunk, 2012). I applied SCT to my analysis of data to more thoroughly understand how these various factors work in conjunction with one another to influence the participants' learning.

Self-efficacy is one of the four major tenets within SCT (Lowry, Zhang & Wu, 2017). The other four include social learning, outcome expectancies, and identification. These four tenets work in conjunction with one another to explain human behavioral learning (Bandura, 1996). I previously explained the tenet of self-efficacy in some detail. In short, self-efficacy is the judgment one makes of their own ability to master a certain skill.

Social learning, or modeling, is the concept that describes the ways people can learn from observing others. This is the specific element of SCT that most directly contradicts strict behaviorist theory (Bandura, 2002). Social learning is sometimes referred to as observational learning, as observation is often the mode for the transmission of the modeled behavior. The concept of social learning was a key finding in Bandura's famous Bobo doll experiments (1961).

Outcome expectancies describe the consequence or outcome of an individual's behavior. These expectations are based on, but not identical, to outcomes they may have observed from social models. Outcome expectancies differ from self-efficacy in that they merely predict the consequence of any given behavior, not the ability to master a task (Maddux, Norton, &

Stoltenberg, 1986). These concepts are often confounded. There can be significant overlap between these two concepts. Expectations about a course of action and a belief in one's ability to succeed can both influence learning and behavior.

Identification refers to the connection one makes with a social model. Identification transcends simple social learning in that the model can indirectly or directly instill beliefs and values. The degree to which these beliefs and values are integrated is a function of the degree to which the learner identifies with the model (Bandura, Ross, & Ross, 1963). This concept is especially important when analyzing social modeling in which there is a power imbalance between the model and the observer.

I used SCT to analyze teacher behavior and perceptions by examining the social, behavioral, and cognitive aspects of the data collected (Boateng, Adam, Okoe & Anning-Dorson, 2016). Although I focused on self-efficacy in my study, the other components of SCT have proven useful in analyzing the learning behavior of teachers. I also considered human agency, one of the theoretical foundations of SCT in my analysis. Human agency refers to the ability of people to take control of their lives and not simply operate at the whims of external factors (Bandura, 2001). The next theory I describe focuses on career development and attributes some of its theoretical foundation to SCT.

Life-Span, Life-Space Theory

Super's (1953) based Life-Span Life Space Theory (LST) on the premise that people choose career paths because of differences in their interests, abilities. Super believed career identities served as extensions of our overall identities (Super, 1983). Subsequently, Super (1990) eventually expanded his theory beyond career development, referring to it as life-space, life-span theory. Super has updated and modified LST several times since its inception

(Savickas, 2011). The first iteration was Career Development Theory, now commonly referred to as Life-span, Life-space theory. Between 1953 and 1990, the general theory had gone through a number of iterations with different names and nuances. For the sake of this study, I treated the names of the theory synonymously in my analysis of data from respondents at various stages in their careers.

Super's (1983) career development theory asserts career development is not as simple as matching an individual's skillsets and interests at one point in their life to a congruent career. Instead, Super's career development involves the potentially life-long process marked by specific stages (Brown & Lent, 2012). For example, professionals may exhibit unique needs and be influenced by different motivators in each stage. Super placed self-concept and human agency at the center of LST, positing a person's evolving skills and environment shape their career development through choice rather than a formulaic matching at early adulthood (Super & Hall, 1978). Tschannen-Moran, Woolfolk-Hoy, and Hoy (2018) advocated for a scholarly investigation into the role career stages play in the development of TSE. Super's (1983) career stage theory served as a basis for my exploration of the impact of career stage on TSE development.

Super (1983) emphasized the critical role of self-concept in one's career development by arguing self-concept evolves with new experiences and challenges. These challenges and experiences shape self-concept and then career development. This process does not necessarily follow a linear path linked only to professional responsibilities. Sahin (2017) found self-esteem, a critical component of self-concept, influenced the development of TSE. I applied Super's analysis of self-concept as a determinant in career choices to my review of findings related to

self-concept as a variable in the development of TSE. I also applied this theory to the analysis of my research findings specific to the impact of career stage and the development of TSE.

Super (1990) divided professional career pathways into five stages. The first stage involves “growth,” which takes place from ages four to 14. I have not referenced this stage in my analysis nor future data analysis due to the age range. My study involves participants who describe their career choices as young and more mature adults. The next stages apply to my study. The second stage, described as “exploration,” occurs from ages 14–24. I applied this stage to my analysis of pre-service teachers (Savickas, 2011). Many scholars have specifically identified pre-service teachers as especially in need of TSE. For example, Meristo, Ljalikova, and Lofstrom (2013) interviewed veteran teachers and asked them to reflect on their pre-service experiences. These researchers found cooperation, vision, and a sense of community among cooperating teachers led to the development of TSE. De Jong et al. (2014), on the other hand, found the perceptions about the strength of the relationship between student and a pre-service teacher did not correlate to TSE. Super’s (1983) stages allow a deeper analysis of the review findings related to the early stages of a teacher's career and their reflections on pre-service experiences.

“Establishment,” the third stage, spans from ages 25–44. This stage is marked by acclimating to instructional expectations and potentially seeking advancement (Super, 1980). In this stage, teachers transition from novice to veteran teachers. Shoulders, Scott, and Krie (2015) found teaching experience affects certain aspects of self-efficacy, but not others. For example, they found teachers with master's degrees and more experience exhibited higher levels of TSE specific to classroom management and instructional strategies, but not student engagement. As

themes and potential theories emerged in my study, I applied Super's theory to my analysis of the factors affecting TSE development at different career stages.

According to Super (1983), the "Maintenance" stage takes place from ages 45–65 and is marked by finding new challenges but not taking significant risks. Turkoglu, Cansoy, and Parlor found experienced teachers' job satisfaction to be highly correlated with self-efficacy. This correlation was especially true for self-efficacy related to instructional strategies and classroom management. Given the current teacher shortage and the increasing accountability-based demands on teachers, systems-based support of veteran teachers seems imperative. Career indecision is not just a phenomenon for new teachers (Betz & Hackett, 1986). Veteran teachers in the field may begin to doubt their career choices. Self-efficacy serves as a mediating factor for job satisfaction (Chen, 2012). I have applied the theoretical underpinnings of Super's LST to my analysis of the literature related to teachers at this stage in their careers as teachers.

Super attributed the final stage, "disengagement," to those over 65 years old. This stage is characterized by preparing to transition out of the professional setting (Super, 1983). I did not focus on the qualitative portion of my study on teachers at this stage in their careers. However, my survey included participants at the disengagement, and therefore, my quantitative data contains references to teachers at this stage. I also considered the impact of these various career stages on the decisions teachers make, up to and including whether or not they decide to remain in the teaching profession (Smart & Peterson, 1997).

In addition to the stages of career development, Super's LST relies heavily on the social context of one's career development (Super, 1990). Super explained one's career could not be understood devoid of social context, and accordingly, one must study them together. Research has also indicated a link between self-concept and self-efficacy (Alivernini & Lucidi, 2011). For

example, in a study of the role self-efficacy played in student drop-outs, Alivernini and Lucidi found the relationship between social context and self-efficacy to be paramount. I utilized the logic of Super's theory to the analysis of self-concept and self-efficacy at various stages in a teacher's career. SCT explores how we learn while LST explores how we progress through a career. The next theory I explored, TLT, which focuses on how people can learn significantly and deeply resulting in expanded perspectives.

Transformative Learning Theory

Mezirow (1996) inductively identified ten phases in the Transformative Learning process. Mezirow held that adult learners who go through these ten phases could experience transformative learning, which results in a significant transformation in their frame of reference.

The steps are as follows:

1. A disorienting dilemma
2. Self-examination with feelings of guilt or shame
3. A critical assessment of assumptions
4. Recognition that one's discontent and process of transformation are shared and that others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning of a course of action
7. Acquisition of knowledge and skills for implementing one's plans
8. Provisionally trying out new roles
9. Building of competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective.

"Frames of reference" is a key concept in TLT that describes a mechanism by which people make meaning of their world (Mezirow, 1996). Frames of reference refer to the assumptions and beliefs people acquire through their experiences and their culture (Mezirow, 2018). People acquire frames of reference through cultural and sociolinguistic means (Howie & Bagnall, 2013). TLT holds that through critical reflection, people can question their assumptions and beliefs and ultimately transform their frame of reference. In TLT, these new, transformed perspectives are broader and more inclusive and are anchored by a more critical and thoughtful analysis (Mezirow, 1996). Mezirow delineated four ways in which learning takes place. "Learning occurs in one of four ways: by elaborating existing frames of reference, by learning new frames of reference, by transforming points of view, or by transforming habits of mind (Mezirow, 2000, p. 84). Elaborating existing frames is non-transformative, while the other three ways of learning are transformative. Mezirow also stressed the agentic concept of autonomous thinking as an ideal for which to strive and an element of TLT (1991).

I selected Bandura's SCT (1977), Super's LST (1983), and Mezirow's TLT (1996) as the initial theories used to use to analyze the related literature. I also used these theories to analyze my quantitative and qualitative data I gathered throughout the course of my study. I selected these theories for their direct connection to the two primary concepts I explored in my study. The first involves the development of TSE, and the second involves the way teachers develop TSE at various stages in their careers. These theories served as a framework for my analysis and the development of a grounded theory regarding the development of TSE at various career stages.

Hierarchy of Needs

Maslow developed a theory of human motivation, commonly referred to as Maslow's Hierarchy of Needs (HON) (Gawel, 1997; Koltko-Rvera, 2006; Baslevent & Kiramanoglu,

2012). HON is based on the premise that human needs serve as the primary motivator of human behavior. Maslow postulated that through the satisfaction of increasingly complex needs, humans find motivation. Maslow described this as a hierarchy of prepotency, meaning each level in the hierarchy takes on different importance and influence, or prepotency, based on the satisfaction of needs in the previous levels (Maslow, 2018). Furthermore, Maslow asserts that these needs are arranged in a hierarchy in which lower-level needs must at least be partially met before one can access the motivational power of the higher levels.

The needs in this hierarchy include 1. Physiological needs, including sustenance and sex 2. Safety needs, including protection from dangers and a drive for stability. 3. Love needs including belongingness and affection. 4. Esteem needs for self-respect and for respect of others, often referred to as ego or status needs. 5. Self-actualization or self-fulfillment needs to achieve the potential within a person, in other words, to make the potential the actual (Maslow, 1968b).

Maslow classified the first four levels of need from physiological to esteem needs as deficiency needs as they are basic needs that, if not satisfied, drive motivation (Maslow, 1968b). Whereas higher-level needs, including self-actualization and in some refined models, intrinsic values are growth needs meaning these needs motivate through a desire to become a more complete person. Maslow originally described his model in a binary sense. He asserted people did not access higher levels of the hierarchy unless the lower level was completely satisfied. Maslow later adjusted the model and stated it was not as rigid as originally conceived, and internal and external factors could lead to variability in its application (Koltko-Rvera, 2006).

Summary of the Literature Review

I reviewed over 80 articles and books related to self-efficacy and TSE. The body of research on TSE is extensive and continues to expand. I organized my findings from the

literature into a series of ten major themes. My review of the literature helped me identify themes most pertinent to my study. The first theme involved the historical development of TSE, beginning with Albert Bandura's (1977) seminal work continuing to this day by a vast array of scholars. Next, I explored how Bandura's four sources of self-efficacy catalyzed subsequent research (Bandura, 1985). I then explored specific components of TSE as first identified by Woolfolk-Hoy and Tschannen-Moran (2001) and later turned my attention to the impact of TSE on teaching and learning. I explored this topic from the perspective of teachers and students. I examined factors favoring the development of TSE, and conversely, factors inhibiting the development of TSE. My review also led me to examine the risks of low TSE on teachers and students.

In the next section of my review, I explored the concept of collective efficacy (Donohoo, 2017). Collective efficacy is receiving extensive attention in the most current research because of the effect it exerts on student learning and school culture (Donohoo, 2018; Cansoy & Parlor, 2017). Finally, I turned my attention to the impact of teacher accountability measures on TSE. I explored the role of teacher career stages in the development of TSE. This final theme guided me to the discovery of the major gaps and tensions in the literature on TSE.

Gaps in the literature and needs in the field led me to focus my study on processes supporting the development of TSE throughout a teacher's career. I identified two theories, Bandura's SCT (1976) and Super's LST (1983), to analyze my review findings. In the next section, I described the methodology adopted to conduct my study. This review of literature and theory allowed me to develop a clear picture regarding the development of TSE throughout a teaching career and its impact on teacher performance and student learning.

CHAPTER 3: METHODOLOGY

To answer my research question, I adopted mixed-methods grounded theory methodology (MM-GT) (Gutterman, Babchuk, Howell Smith, & Stevens, 2017) to conduct my study regarding how teachers develop TSE and the differences in this development at various career stages. In this section, I describe the methodology in detail, after first describing the process used to select this method. Because I chose a mixed-methods approach to data collection, the description of the method includes the advantages of collecting both qualitative and quantitative data to inform my understanding of TSE. Descriptions of methodology involve not only how researchers plan to proceed with their studies, but also how exploratory research influenced their decisions regarding the research design. To that end, I included a brief description of my "research story" to document the phases of my research.

My journey to ultimately select MM-GT was not direct. Instead, the process spiraled inward from a position of uncertainty and confusion toward a clear alignment between my goals for the study and a MM-GT methodology. I was originally attracted to a quantitative approach where I could collect numerical data, statistically analyze numbers, and discover a potential connection between TSE and any number of other variables I was considering. However, as I learned more about TSE during my literature review, I came to appreciate the complexity of self-efficacy. This complexity led me to realize I cannot fully understand TSE with numbers and statistics alone. At that point, I decided to focus my energy on a qualitative study. I adopted a qualitative approach to develop a deeper understanding of the perspectives, emotions, and complexities involved in the development of TSE.

I decided to conduct a short exploratory study to enhance my understanding of TSE before launching the quantitative survey analysis I anticipated conducting. I selected three master

teachers from my District, who I recognized as having a strong sense of TSE. During my exploratory interviews, I began to recognize themes among these master teachers and their TSE. For example, all three participants valued fostering student independence. These interviews were both enlightening and invigorating. However, I still yearned for some level of quantitative measurement to enhance my understanding of the process teachers go through while developing TSE. It was at this point I decided a mixed-methods approach was the right fit for my study.

Research Design

In any mixed-methods study, the researcher must strike a balance between the quantitative and qualitative portions of the study (Morse & Cheek, 2015). I have prioritized the qualitative aspect of this study because developing self-efficacy is a complex human construct fully immersed in a social environment, and as such, lends itself to a qualitative approach (Creswell & Poth, 2018). Specifically, my study aims to elucidate a process deeply rooted in social interaction; two of the four sources Bandura identifies for self-efficacy are inherently social in nature (Bandura, 1986). Qualitative research methods serve to navigate the complexities of social constructs (Patton, 2015). In addition to social context, self-efficacy relates directly to an individual's sense of control, which is deeply rooted in contingency and competency beliefs (Bandura, 1997). Contingency beliefs refer to a person's sense of the probability their actions will lead to the desired result, while competency beliefs relate to a person's sense of their ability to achieve the desired result (Schunk, 2012). Patton asserts, through qualitative methods, a researcher may help give meaning to these very "human" types of experiences (2015, p. 57).

Qualitative methods are also well suited to exploring questions related to processes (Patton, 2015). I focused my study on the development of TSE. Detailed descriptions emerging from my interviews and focus groups helped define the processes associated with this

development. Individuals operationalized these processes in various ways. Participants described their experiences in their own words allowing me to understand even subtle differences. By utilizing one of the foundations of a qualitative study, in-depth interviewing, I developed a clearer understanding of the experiences and beliefs of the participants with whom I worked (McCracken, 1988).

I ontologically framed my study from a post-positivist perspective. There is inherent subjectivity in understanding an individual's sense of self-efficacy. I strived to develop a deeper theoretical understanding of TSE throughout my study. As theories emerged, I considered the context from which they emerged. This inextricable link between theory and social context is a definitive tenet of a post-positivist perspective (Reed, 2010. For the reasons I stated above and based on my ontological position, the use of qualitative methods aligned well with my research goals.

Although I emphasized the qualitative elements of my study, the quantitative elements played an important role in verifying and further elucidating my qualitative findings. A mixed-methods approach allowed me to utilize both quantitative and qualitative methods to adequately address my research questions regarding TSE (Creswell & Plano Clark, 2011). By using both quantitative methods based on survey data analysis and qualitative methods, including in-depth interviews and focus groups, I was able to triangulate data to support a more thorough understanding of the processes teachers undergo while developing self-efficacy (Plano Clark & Ivankova, 2014). Specifically, I capitalized on data triangulation by using the quantitative data to support and clarify my inductive findings from the qualitative methods (Patton, 2015).

Grounded Theory

Epistemologically speaking, I approached my study from a social constructivist perspective. Social constructivism asserts the human world and the natural world differ in that human understanding is constructed in a social context (Patton, 2015). I adopted a GT framework for this study of TSE as it aligned with my philosophical position and my research goal.

Grounded theory is a naturally recursive approach relying on an iterative analysis of data (Creswell & Poth, 2018). Glaser and Strauss are considered the originators of the GT approach. From the most basic perspective, Glaser and Strauss (1999) describe GT as a process for deriving theory from qualitative social research. Glaser and Strauss provided a methodological structure and philosophical basis for generating theory through the flexible use of data.

Glaser and Strauss soon developed two somewhat opposing viewpoints related to GT, where Glaser remained consistent in his previous description of GT, while Strauss advocated for a more loosely structured pragmatic approach (Charmaz, 2014). Grounded theory has evolved into several sub-genres of research, including classic grounded theory (CGT), which emphasizes the researcher's participation in the process of generating theory (Charmaz, 2012). It is worth noting these variations still incite debate among the earliest pioneers of GT (Glaser, 2012).

Mixed-Methods Grounded Theory

Grounded theory research and mixed-methods approaches are both prevalent in today's social science research, but the combination of these two approaches is just beginning to emerge (Gutterman, Babchuk, Howell Smith, & Stevens, 2017). There is, however, a growing body of research supporting MM-GT as a unique methodology (Johnson, McGowan, & Turner, 2010; Walsh, 2014). Interestingly, Glaser and Strauss originally conceptualized GT to be used both

qualitatively and quantitatively (Glaser & Strauss, 1999), but in practice, it has been used predominantly in qualitative studies (Gutterman, Babchuk, Howell Smith, & Stevens, 2017). I adopted the specific MM-GT methodology to guide my research as it so closely aligned with my research question and goals.

Methods and Data Collection

My MM-GT study necessitated a specific set of procedures to satisfy the goals of such a study (Mills, Bonner & Francis, 2006). I followed procedures ensuring an adequate collection of both the quantitative and qualitative data sets. I also adhered to practices ensuring the ethical treatment of all participants in my study. Finally, I utilized procedures to maximize the reliability and validity of my data collection and analysis.

Participant Recruitment and Selection

I engaged in three distinct data collection processes requiring separate participant sets: two processes for the quantitative and one process for the qualitative element of my study. The quantitative data aided in the selection of an appropriate sample and offered an additional layer of data, which may bolster the potential emerging theories (Daniel, 2012). The qualitative data also served as the primary basis for generating theory.

The first step was to establish a sample of teachers who demonstrate a strong sense of self-efficacy. Because my study considered the impact of the teachers' career stage, I began the recruitment process by focusing on teachers who are considering a distinct change in their career stage. I recruited teachers currently enrolled in the Principal Licensure Program, for which I served as an instructor. I did not begin my recruitment until the participants completed my course and received their final grade. The detailed procedures related to the recruitment of these

students, including informed consent procedures and recruitment communication, can be found in my Institutional Review Board (IRB) documentation (See Appendix A).

I then administered the TSE Scale (Schwarzer, Schmitz, Daytner 1999) to those teachers who agreed to take part in the study. I used the data from this survey to identify teachers with various levels of perceived self-efficacy. I included additional questions in the survey to allow for the disaggregation of data specific to the participants' career stage. After I administered the survey to the initial set of participants, I initiated a respondent-assisted sampling process, otherwise known as chain sampling (Daniel, 2012). With the respondent-assisted process, I asked each participant to identify colleagues at any career stage who they feel might have a moderate to a high sense of self-efficacy. I recognized this process itself would not result in a statistically valid pool of teachers with high levels of self-efficacy (Vehovar, Toepoel, & Steinmetz, 2016). I only used this chain sampling process to identify potential participants. I then offered the potential participants an opportunity to complete the modified TSE survey.

I used the results from this modified TSE survey to ultimately identify 19 participants for the first phase of the qualitative study. I considered the level of perceived self-efficacy, career stage, and availability to participate as factors in ultimately deciding who to invite to participate in the initial in-depth interviews. All candidates were currently licensed and practicing teachers in Wisconsin or Minnesota. Additionally, all participants had to be willing to participate in an initial 60 minute, one-on-one interview with the potential for follow-up interviews and engagement in focus groups. Because GT follows a recursive process informed by the gathered data, I could not predetermine the extent to which follow-up interviews and focus groups would be necessary (Birks & Mills, 2015). Ultimately, I engaged in six follow up phone interviews and two focus groups to complete my data collection.

Once I identified potential participants, I sent an email officially inviting them to participate in the study. For those who indicated interest in participating, I provided them with a thorough description of the study and a physical copy of the informed consent letter via the United States Postal Service or email. I scheduled all interviews based on the availability of the participants. I advocated for a private office setting for all of the interviews. When we met in person for the interview, I began by reviewing privacy protections and reiterated participation in the study was completely voluntary. I reminded the participants they could withdraw their consent for participation at any point. No participants withdrew their consent, so there was no need to redact or destroy any records.

The final recruitment process pertained to the broader quantitative component of my study. I surveyed a wide range of individuals and recruited at least 118 Wisconsin teachers to take part in this survey. I recruited teachers throughout the state to participate in the modified TSE survey, which I originally used to select participants for my qualitative study. I modified the survey to include questions pertaining to the themes developed throughout the qualitative study. I made a link to my electronic survey available to teachers throughout Wisconsin via an electronic newsletter to the Wisconsin Education Association Council (WEAC) members inviting them to participate in the survey.

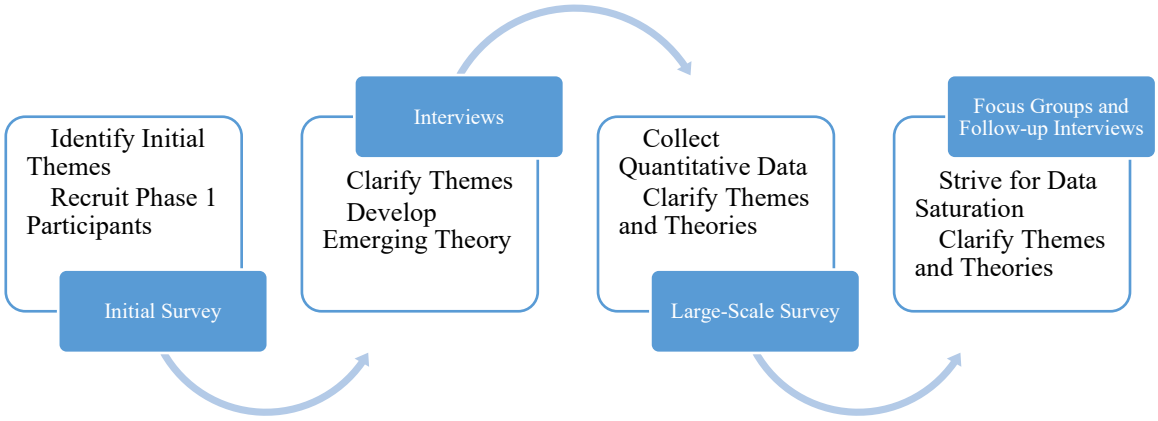


Figure 3.1. *Data collection and analysis procedures.*

Data Collection

I followed procedures for data collection aligned with accepted practices for GT and MM-GT (Charmaz, 2014; Glaser and Strauss, 1999; Gutterman, Babchuck, Howell Smith, Stevens, 2017; Johnson, McGowan, & Turner, 2010; Walsh, 2014). To that end, I combined my discussion of data collection and analysis, since leading scholars inextricably linked these two processes in their GT studies (Glaser & Strauss, 1999). Researchers refer to the process of concurrently gathering and analyzing data as the "constant comparative method" (Birks & Mills, 2015). It should be noted; however, I conducted the quantitative analysis independently of the qualitative analysis, and therefore, in some cases, I discussed them separately in this study.

I first conducted in-depth and structured interviews with participants. Interviews are used very frequently in MM-GT studies (Gutterman, Babchuk, Howell Smith, & Stevens, 2017). I chose to follow McCracken's four-step process for long interviews (McCracken, 1988). The steps in McCracken's process allow for the researcher to: (1) thoughtfully review the pertinent

literature, (2) reflexively consider personal connections to the subject, (3) develop and utilize an interview protocol, and (4) analyze the data. Strict grounded theorists may question the first step in McCracken's process, as conducting an exhaustive literature review runs counter to strict emergent design (Glaser, 1992; Birks & Mills, 2015). However, I found the literature review to be a pragmatically necessary component in my process to ensure I developed a thorough understanding of TSE and to ensure approval of my study.

Institutional Review Board

I submitted the required forms and Study Application to the University of St. Thomas Institutional Review Board (IRB) in April 2018. The IRB agreed my research proposal met the ethical requirements related to the protection of participants and standards for conducting human subject research and approved my application (see Appendix A). I also established an interview protocol to inform participants of the voluntary nature of the study and to advise them of their rights.

I prepared consent forms to ensure all participants were fully aware of the scope of the processes involved in my study. These forms also addressed the confidentiality of research participant data. The forms outlined routines to protect this data from access by anyone but myself. These protections included a confidentiality/non-disclosure agreement for the transcription services I used. Finally, the consent form clarified the potential harm, however minimal, to participants.

Data Analysis

After I conducted the first round of interviews, I began initial coding. Initial coding is the process of analyzing the specific words and phrases of the participants to determine important concepts and potential themes. In some cases, the actual words of the participants became codes

(Charmaz, 2014). I developed initial codes in an open coding process in which I identified keywords, phrases, and concepts appearing in the transcripts of my interviews (Birks & Mills, 2015).

I engaged in qualitative follow-up interviews and focus groups with teachers who indicated a high level of self-efficacy, as evidenced by the results of the initial survey. Although GT research depends on an iterative process in which interview questions and procedures evolve as themes emerge (Strauss & Corbin, 2017), the initial qualitative interview questions focused on three concepts. The first of these concepts included causal conditions, the second concept explored the strategic actions taken by the teachers, and the third concept considered outcomes of these strategies on student learning (Bandura, 1996).

After I gathered and coded the data from the initial broad questions, I engaged in theoretical sampling and intermediate coding. Theoretical sampling is "the process of identifying and pursuing clues that arise during analysis" (Birks & Mills, 2016). This process is highly recursive, as emerging data leads to new themes and codes, which then inform the next data collection process. Theoretical sampling does not always necessitate gathering new data; it may occur by re-analyzing existing data from a new theoretical perspective (Hernandez, 2009). When necessary, I followed up with participants in person or virtually to further explore the rich nuggets of data that emerged in my study (Bryant & Charmaz, 2011). As I engaged in intermediate coding, I began generating themes and attempting to elucidate an emerging theory. I applied intermediate coding to focus group data, memos, and subsequent interview data (Hernandez, 2009).

For my second method for theoretical sampling, I assembled two focus groups to complement my in-depth interviews (Charmaz, 2014). I considered these focus groups to be

secondary data sets (Birks & Mills, 2016; Glaser, 2009). As secondary data sets, the focus groups were directly involved in the development of theory. Birks and Mills (2016) refer to these as "interpretive focus groups." I formed these focus groups based on the attributes of potential participants, thematic connections, and experiences. Thematic connections among focus group members served as the first attribute to form focus groups. I analyzed my interview and survey data to form groups of members who demonstrated similar emerging thematic responses. Years of experience served as the second attribute I used to analyze and compare quantitative results.

Throughout the data collection process, I wrote and maintained field notes and memos. In their seminal publication, *Discovery of Grounded Theory* (1999), Glaser and Strauss suggest memos should be used to record the researcher's thoughts and implemented systematically while in the field and when analyzing data. My memos provided a structure to gather my thoughts on emerging theory. Once again, the recursive nature of GT applied to memoing. I coded my memos by applying the constant comparative analysis. Additionally, I conducted follow up phone interviews with existing participants to clarify and expand on information they previously provided.

The final step in the data collection process before pure theoretical analysis was axial coding. Axial coding is the process of comparing concepts which have emerged and coding them accordingly (Bryant & Charmaz, 2011). I conducted axial coding once I reached the point of theoretical saturation. Saturation refers to the point at which new data no longer emerges from the various sources of data collection, and new codes were no longer generated (Birks & Mills, 2015). I utilized axial coding methods to completely reassemble the data by identifying connections among the categories and themes which emerged (Rabinovich & Kacen, 2010).

I used Dedoose cloud-based coding software for all levels of my qualitative coding (www.dedoose.com). Dedoose allowed for secure and intuitive coding based on end-user focused platform assisting in the discovery of emerging themes. Dedoose utilizes double encryption, and a redundant password-protected data protection platform to ensure data security.

I then turned my attention to quantitative data analysis based on responses from the TSE Scale (Schwarzer, Schmitz & Daytner 1999) and the additional survey questions discussed previously. I used Survey Monkey software to disseminate the survey and collect the data, followed by IBM SPSS Statistics (SPSS) software to analyze the survey data. I selected SPSS because of its widespread use in quantitative studies and its applicability with the analysis of the survey. I used SPSS to measure central tendency data and to conduct Pearson's Correlation Analysis.

I designed my survey to gather both descriptive and explanatory data (Jann & Hinz, 2016). The descriptive questions aimed to measure a teacher's perceived level of self-efficacy. The majority of these survey items are part of the existing TSE Scale (Schwarzer, Schmitz & Daytner, 1999). I designed the explanatory questions to gather information about teachers' perceptions of the process they underwent to develop TSE, as well as information about their career stage. I analyzed the survey data from all participants to uncover further patterns related to the ways in which teachers develop higher degrees of perceived self-efficacy. I used this data to test the emergent theories from the qualitative portion of my study. Additionally, I used the survey data to strengthen the emergent theory as it related to the career stages of teachers.

The correlation analysis was used to determine if there was an association between the demographic variables of the study: Questions 26, 27, and 28 in the TSE and the factors of the TSE, as determined by cluster analysis of the survey instrument. The correlation test was used to

determine if there is an association between Question 1 of the Interview Questions and the factors of the Interview Questions determined by Cluster Analysis of these questions. The null-hypotheses for the correlation tests will state the variables are independent of each other. The correlation test determined if the variable clusters measured by the TSE and the various demographic characteristics gathered from each participant were associated in a statistically significant fashion. The correlation test determined if the variable clusters measured by the interview questions and the various demographic characteristics gathered from each participant are associated in a statistically significant fashion.

I then conducted a cluster analysis of the survey data. Cluster analysis is a descriptive method used to group similar data into naturally occurring clusters (Uprichard, 2008). The cluster analysis helped identify characteristics I then used to refine themes, which emerged from the qualitative portion of the study. The cluster analyses also guided further qualitative inquiry in the form of additional interviews or focus group research.

Once my analysis led to an emerging theory, I conducted additional focus group sessions to test the theory. I convened a group of high TSE instructional coaches who all previously served as classroom teachers. These coaches focus their energies on improving the instructional effectiveness of teachers. They target increasing TSE of the teachers with whom they work as one of the strategies to improve effectiveness. These coaches engaged in an analysis of the emerging theory to test it against their personal experience working with other teachers and supporting their own TSE.

In this methodology section, I described the philosophical underpinnings and methods I used to complete my study and both the qualitative and quantitative procedures I used to gather and analyze my data. I have also specifically discussed the key components of a mixed-methods

study and a GT study. Finally, I have described the unique methodology of the MM-GT study I followed. I am hopeful my study contributes to the body of research aimed at helping teachers develop increased levels of TSE for the benefit of all students.

Validity and Reliability in Qualitative Research

Validity and reliability assist in justifying the importance of any study. The importance of both validity and reliability is magnified in a qualitative study because strict statistical processes are not employed. Internal validity refers to the ability of a proposed instrument to measure what it is intended to measure (Given, 2008). External validity is a measure of how the design and execution of a study may result in generalizable conclusions (Frey, 2018). In qualitative research, reliability is a function of the consistency of the findings (Given, 2008).

I focused my efforts on maximizing validity through two general strategies. First, I engaged in 19 detailed and open-ended interviews with participants until I reached a point of theoretical saturation (Birks & Mills, 2015). By collecting data to the point of theoretical saturation, I greatly increased the likelihood of the themes and theories emerging from the data were valid. My second strategy, the use of triangulation, took advantage of the benefits of mixed-methods research and allowed me to validate the data I collected. In essence, the qualitative data I collected helped validate quantitative data, and conversely, the quantitative data validated the qualitative data (Creswell & Plano Clark, 2011).

I employed a variety of strategies to increase the reliability of my study. I viewed general trustworthiness as a key measure of reliability. I regularly checked in with the participants during the qualitative portion of my study. I engaged in ongoing conversations with participants to

ensure I was capturing their thoughts, feelings, and perceptions accurately. I also strived to be transparent about my potential biases, which I previously delineated in my reflexive statement.

Ethical Considerations

My primary ethical concerns related to the privacy and anonymity of the participants who agreed to participate in my study. Although I took precautions, the risk of the anonymity of a subject could have been compromised. Because the interviews often took place at the subject's place of work, others could have witnessed the interview process. I made it clear in the consent form and my opening remarks before each interview, participants could decline to respond to any questions and may withdraw from the research project at any point without any repercussions (Simons, 2009).

There was also some chance individuals could have compromised the data in either digital or paper form. I maintained confidentiality with all the records I created in this study. In all reports I drafted, I used the pseudonyms of participants. I did not include any information which would have made it possible to identify participants. I created records, including written field notes, interview transcripts, digital recordings of interviews, memos, written descriptions of potential observations of teaching practices, and written descriptions of teaching environments. All digital information was stored on an encrypted, password-protected local drive and was backed up to an encrypted, password-protected cloud-based storage system. I personally transcribed all audio files or used Rev.com, a service with clearly articulated confidentiality procedures. I will retain all signed consent forms for a minimum of three years upon completion of the study.

Many teachers are deeply and emotionally committed to their craft. Although teachers were responding to a relatively benign question, some experienced a level of emotional distress

based on the content of their responses. Having experienced such a response from a teaching colleague during my pilot study, I have become particularly sensitive to this risk. I not only made it clear in the consent form and my opening remarks before each interview participants could decline to respond to any question and could withdraw from the research project at any point without repercussion, but I also specifically mentioned the potential for emotionally charged conversations.

Because the interview protocol included questions covering a wide array of topics related to teaching, I could not predict what a particular subject may recall when answering. Thus, as stated above, I communicated verbally and in writing, indicating participants could decline to respond to any question and could withdraw from the research project at any point. The data collection method was iterative. I employed probing techniques to clarify emerging themes. This process resulted in questions some participants could perceived as personal. When I observed any signs of distress, I ceased probing for the information, which appeared to trigger a distressing emotional response. On one occasion, I did alter the line of questioning as a participant was becoming emotional.

Participant Information

I ultimately interviewed 19 teachers in Wisconsin and Minnesota over the course of 14 months. The interviews lasted between 39 minutes and one hour and 40 minutes. I conducted individual interviews with 16 of the 19 of the teachers. I conducted a focus group with three of the 19 teachers who all served as instructional coaches. I conducted short follow up interviews with the participants in the focus group. All of the teachers I interviewed taught in Wisconsin or Minnesota. Fourteen of the teachers I interviewed identified as women and five identified as men. None of the teachers I interviewed Identified with non-binary gender. (See Table 3.1). I

classified the school setting of the 19 participants among three classifications. Eight of the participants taught in rural schools, nine in suburban, and two in an urban school. The distribution of levels at which the participants taught ranged from one at the preschool level to eight at the elementary level (see Table 3.1). I attributed the gender discrepancy to the higher number of elementary level participants, which tends to have higher numbers of teachers who are women. The following table delineates pertinent demographic data related to the participants.

Table 3.1

Participant Demographic Data

Name	**Gender**	**Level**	**Years of experience**	**Career Stage**
Lindsay	Female	Elementary	0	1-Exploration
Loretta	Female	Elementary	1-5	1-Exploration
Kevin	Male	Middle	6-10	2-Establishment
Margaret	Female	High	6-10	2-Establishment
Barbara	Female	Middle	6-10	1-Exploration
Joanie	Female	Preschool	6-10	1-Exploration
Debra	Female	Middle	11-15	2-Establishment
Kelly	Female	Middle	11-15	1-Exploration
Thomas	Male	Middle	16-20	2-Establishment
Belle	Female	Elementary	16-20	2-Establishment
Lacey	Female	Elementary	16-20	3-Maintenance
John Paul	Male	Middle	16-20	3-Maintenance
James	Male	High	21+	4-Decline
Dawn	Female	High	21+	4-Decline
Carol	Female	Elementary	21+	4-Decline
Maria	Female	Elementary	21+	3-Maintenance
Robert	Male	Elementary	21+	3-Maintenance
Mary	Female	Elementary	21+	3-Maintenance
Elizabeth	Female	Elementary	21+	3-Maintenance

I sought to work with a balance of teachers across career stages. Secondarily, I had hoped to interview a balance of teachers across all levels in a K-12 system. Although I was able to

interview a balance of teachers across career stages, I was unable to balance my participants across teaching levels. I worked with significantly more elementary teachers than high school teachers (see Table 3.2).

Table 3.2

Participants by Level and Career Stage

Teaching Level		**Career Stage**	
Preschool	1	Exploration	5
Elementary	9	Establishment	5
Middle School	6	Maintenance	6
High School	3	Decline	3

In order to better understand the context surrounding my participants, I included this brief introduction to each participant organized by Career Stage. Lindsey, Loretta, Barbara, Joanie, and Kelly were teachers in the Exploration Career Stage. Lindsey was a preservice teacher seeking her license as a special educator in Minnesota. She was in the last year of her licensure program. Loretta had been an elementary teacher in a mid-sized Wisconsin school district for the past seven years. She has most recently served as an interventionist working with students who are struggling to meet academic expectations. Barbara was a middle school teacher in a small private school in Minnesota. She has been a professional educator for the past six years. She most recently has served as a middle school English teacher. Joanie was a preschool teacher in a small private school in Minnesota. She had served as a professional educator for the past ten years. She has recently accepted formal leadership responsibilities in her school. Kelly had served as a middle school science teacher for the past five years.

Kevin, Margaret, Debra, Thomas, and Belle were all teachers in the Establishment Career Stage. Kevin had been teaching for eight years. He is an elementary teacher in a small Wisconsin school district. Margaret was a school counselor in a large Wisconsin high school. She had been working as a school counselor for six years. Debra was a middle school science teacher who worked in a small Wisconsin school district. Thomas was a middle school social studies teacher with nearly 30 years of experience in a variety of settings. Belle was a teacher in a small private school who has been teaching at the elementary level for over 20 years.

Lacey, John Paul, Robert, Maria, Mary, and Elizabeth were all teachers in the Maintenance Career Stage. Lacey was a veteran teacher with over 20 years of elementary experience in a mid-sized district in Wisconsin. John Paul was a veteran middle school science teacher with over 20 years of experience. He also served as an athletic coach in the medium-sized district in Wisconsin. Robert had been an elementary teacher for the past 27 years. He had spent all of the past 27 years in the same small district in Wisconsin. Maria had taught in Minnesota and Wisconsin for over 25 years. She had taught at multiple levels. She served as an elementary teacher in Wisconsin. Mary and Elizabeth both worked as instructional coaches.

James, Dawn, and Carol were teachers in the Disengagement Career Stage. James was a recently retired high school English teacher who had taught in a variety of settings. Most recently, James taught in a mid-sized Wisconsin School district. Dawn was an English teacher in a mid-sized Wisconsin high school. She had worked as a professional educator for over 25 years. Carol was an instructional coach who had previously taught for over 25 years.

Quantitative Methods

I focused the quantitative portion of this study on determining the factors associated with teacher self-efficacy. I collected data from a sample of 118 teachers throughout the state of Wisconsin, who were asked to complete the Teacher's Sense of Efficacy Scale (TSES). I included the general quantitative results of my study in this section as I considered them foundational and informative to the qualitative portion of my study. The quantitative process informed my interview and focus group processes. Based on the data collected, I conducted a set of inferential analysis procedures to identify which aspects of TSE were correlated and whether there was a statistically significant relationship between a teacher's demographic characteristics and their sense of self-efficacy. In this section, I presented my general quantitative findings without specific consideration for the career stage of the participants. The following null and alternative hypotheses were formulated:

$H1_0$: There was no significant correlation between the impact of feedback on TSE and experience level of teachers.

$H1_a$: There was a significant positive relationship between the impact of feedback on TSE and experience level of teachers.

$H2_0$: There was no significant correlation among the impact of mentorship or collegial factors on TSE and experience level of teachers.

$H2_a$: There was a significant negative correlation between the impact of mentorship or collegial factors on TSE and experience level of teachers.

$H3_0$: There was no significant correlation between the impact of student-related factors on TSE and experience level of teachers.

$H3_a$: There was a significant positive correlation between the impact of student factors on TSE and experience level of teachers.

Table 3.3

Survey Participant Demographic Data

Category	Number	%
Years of Teaching		
1-5	9	8.0
6-10	23	20.4
11-15	26	23.0
16-20	26	23.0
21+	29	25.7
Professional Setting		
Rural	6	5.3
Suburban	87	77.0
Exurban/Smalltown	16	14.2
Urban	4	3.5
Gender		
Male	27	23.9
Female	85	75.2
No response	1	0.9

Prior to conducting the inferential analysis procedures, I processed the quantitative data for descriptive statistics. Table 3.3 contains the results of the frequency analysis of the categorical data collected. This includes the respondents' number of years teaching, professional setting, and gender. As shown in Table 3.3, very few of the respondents had 1-5 years of experience (9 out of 113). The remaining respondents were more or less equally divided in their number of years teaching. However, the majority of the respondents were teachers in a suburban location (87 out of 113, 77%). Likewise, the majority of the respondents were female (85 out of 113, 75.2%).

I also processed the continuous variables for measures of central tendency, particularly the minimum and maximum values, the mean, and the standard deviation. Table 3.4 contains the results of the descriptive statistics analysis conducted. The analysis included the scores for the

TSES subscales, namely Student Engagement, Instructional Strategies, and Classroom Management. The results indicated that the respondents reported the highest mean scores for the Instructional Strategies subscale (M = 2.84, SD = .22), followed by Classroom Management (M = 2.80, SD = .25), then by Student Engagement (M = 2.72, SD = .28). I also collected data on other factors possibly affecting the teachers' sense of self-efficacy, such as feedback, students, mentors and colleagues, and content mastery.

Table 3.4

Results of Descriptive Statistical Analysis

	Min	Max	Mean	SD
Teacher Sense of Self-efficacy				
Student Engagement	1.47	3.00	2.7219	.28
Instructional Strategies	2.00	3.00	2.8449	.22
Classroom Management	1.75	3.00	2.7990	.25
Feedback Factors	10.00	20.00	16.3274	2.26
Feedback from students	1.00	4.00	3.3805	.70
Feedback from parents or guardians	1.00	4.00	2.9292	.81
Feedback from Colleagues	1.00	4.00	3.4690	.60
Evaluative feedback from supervisor	1.00	4.00	3.1416	.83
Clear expectations	1.00	4.00	3.4071	.72
Student Related Factors	7.00	12.00	10.7568	1.16
Maintaining positive relationships with students	3.00	4.00	3.7768	.42
Holding high expectations for students	3.00	4.00	3.6875	.47
Fostering student independence	1.00	4.00	3.2920	.65
Mentor and Colleagues Factors	3.00	12.00	10.2124	1.82
Working with a mentor or coach	1.00	4.00	3.1770	.94
Working with expert teammates	1.00	4.00	3.5221	.67
Being encouraged by colleagues	1.00	4.00	3.5133	.71
Mastery Factors	5.00	12.00	9.5045	1.58
Autonomy-Ability to make your own decisions	1.00	4.00	3.4248	.72
Mastering an instructional strategy or skill	2.00	4.00	3.3243	.68
Mentoring other teachers or pre-service teachers	1.00	4.00	2.7699	.89

To address the hypotheses of the study, I conducted a set of correlation analysis procedures determining the nature and existence of statistically significant relationships between

the identified variables (see Table 3.5). The first hypothesis was formulated to determine the relationship between the impact of feedback on TSE and the experience level of teachers. The results of the analysis indicated that although the years of teaching or experience level of the teachers exhibited a positive relationship with the impact of feedback on TSE, this relationship was not statistically significant ($r = .015$, $p = .873$). Hence, the first null hypothesis was accepted.

The second set of hypotheses of the study focused on the relationship between the impact of mentorship on TSE and the experience level of teachers. The results of the data analysis indicated that the impact of mentorship factors on TSE was significantly correlated with the teachers' experience level ($r = -.222$, $p = .018$). The relationship between the two variables was negative or inverse, indicating that more experience was correlated with lower effects of mentorship on the TSE levels of the participants. Based on these results, the second null hypothesis was rejected.

The third set of hypotheses were formulated to examine the relationship between the impact of student-related factors on TSE and the teachers' experience levels. As shown in Table 4.3, student-related factors were not significantly correlated with the teachers' years of experience ($r = .138$, $p = .149$). Thus, the third null hypothesis was accepted.

I also determined the correlations between the other factors of the study. The results indicated that the scores for the Student Engagement subscale of the TSES were significantly correlated to all the other variables except for Years Teaching ($r = .031$, $p = .746$) and Mentorship and Collegial factors ($r = .102$, $p = .282$). All the other relationships displayed a significant positive or direct relationship with student engagement. The data indicated the same trend with the Instructional Strategies and Classroom Management subscales of the TSES, which

were significantly correlated with all the other variables except for years teaching and Mentorship and Collegial factors.

Table 3.5

Results of Correlation Analysis Procedures

	Years of Teaching		Student Engagement		Instructional Strategies		Classroom Management	
	r	p	r	p	r	p	r	p
Student Engagement	.031	.746	--	--	--	--	--	--
Instructional Strategies	.089	.349	.676	.000	--	--	--	--
Classroom Management	.102	.282	.648	.000	.539	.000	--	--
Feedback Factors	.015	.873	.415	.000	.243	.009	.286	.002
Student-Related Factors	.138	.149	.251	.008	.228	.016	.260	.006
Mentor and Colleagues	-.222	.018	.102	.282	.057	.549	.041	.663
Mastery Factors	.236	.013	.190	.046	.247	.009	.209	.028

Summary

In this section, I described my methodology in my MM-GT study and outlined how I followed the fundamental principle in ethical research of "do no harm" (Simons, 2009). I also included a more detailed account of my quantitative methods and formative results. I made every effort to describe the experiences of the participants in my study accurately and thoroughly. My goal, as described in my research questions, was to support teachers by contributing to the field of research addressing TSE. As I engaged in my data collection, whether it be in one-on-one

interviews, focus groups, or virtual exchanges, I always did my best to honor the relationships with participants and respect the trust they placed in me.

CHAPTER 4: GENERAL FINDINGS

In this study, I examined processes with which teachers develop and sustain teacher self-efficacy (TSE) throughout their careers. In this chapter, I explicated the data collected from the qualitative and quantitative portion of my study and addressed findings related to the overarching concept of developing TSE. Five themes emerged from my data collection and analysis process. Each theme contained two to three sub-concepts that clarified the scope of the data related to each theme. I explained my findings for each theme and its related subcomponents in the subsequent sections. The following vignette of Lacey served as a microcosm of my general findings. Lacey continually sought opportunities to enhance her TSE. In doing so, her behaviors exemplified the five themes that emerged from my study.

Lacey served as an elementary teacher for over 20 years. She spent the majority of her career teaching in a suburban Wisconsin district. Lacey's colleagues and supervisors described Lacey as a highly effective teacher. Lacey's principal proudly said, "Lacey is a teacher who gets the best out of *all* kids. I never have to worry at class placement time with Lacey because she will find a way to reach all of her students." Lacey described herself as a tenacious teacher who refused to give up.

The recipe for efficacious teaching is more than a mere list of ingredients. This recipe is made up of habits of learning and an inclusive focus on students, which work in conjunction with one another to foster TSE. Lacey's teaching story exemplifies a comprehensive recipe that allowed for her continual and robust TSE development. Lacey demonstrated *habits of learning* that allowed her to continually improve her professional and pedagogical knowledge. These *habits of learning* included self-reflective practices, seeking and valuing feedback and collaboration. For Lacey, these three habits worked hand-in-hand. Lacey consistently sought

feedback about her teaching from supervisors, colleagues, and students. She then made a point to actively reflect on the feedback, adjusting her practice when necessary. Lacey recognized she could not maximize her impact as a teacher by working alone. She valued collaboration with colleagues and understood ways her colleagues could improve her practice and student outcomes. For example, Lacey ensured meaningful collaborative opportunities by seeking a "seat at the table" when important discussions about teaching and learning were taking place. Lacey served on both building and district-level leadership teams to take her seat. She also informally collaborated with colleagues she felt were like-minded in their belief in the potential of all students. These *habits of learning* provided the foundational ingredients for Lacey's TSE growth.

Lacey also prioritized two student-focused aspects of teaching, which fed her TSE. First, Lacey focused on building student relationships; she noted that this has always come naturally to her. She had more recently recognized how she could leverage the strong relationships in order to help students to meet high student expectations. Secondly, Lacey was highly committed to inclusive teaching practices. Lacey strongly believed her students were best served by maximizing their time in her classroom. For Lacey, these inclusive teaching practices were the byproduct of strong relationships. She built authentic relationships with her students and then created an environment of high expectations for all students. The relationships fostered trust between Lacey and her students and among classmates. She advocated for support for her students but was fiercely protective of her instructional time. Whenever possible, Lacey wanted the support for her students to be "pushed in" to the classroom. These five pillars: (1) self-reflective practices, (2) seeking and valuing feedback, (3) prioritizing student relationships, (4) commitment to inclusive practices, and (5) collaboration with colleagues, emerged as the general

themes in this study regarding how teachers gain and sustain TSE over the life of their careers (see Figure 4.1).

I grouped and named the first three themes of self-reflective practices, seeking and valuing feedback, and collaboration with colleagues as *"habits of learning*." These habits defined the ways in which teachers learned from others and themselves. I classified the next two themes of prioritizing student-relationships and making a commitment to inclusive practices as "*focus on students*" themes because together, they defined ways high TSE teachers maintained a student-centric approach as opposed to focusing on adult concerns. In this chapter, I described these themes and their relationship to my primary research question: How do teachers develop and sustain self-efficacy related to their role as education professionals?

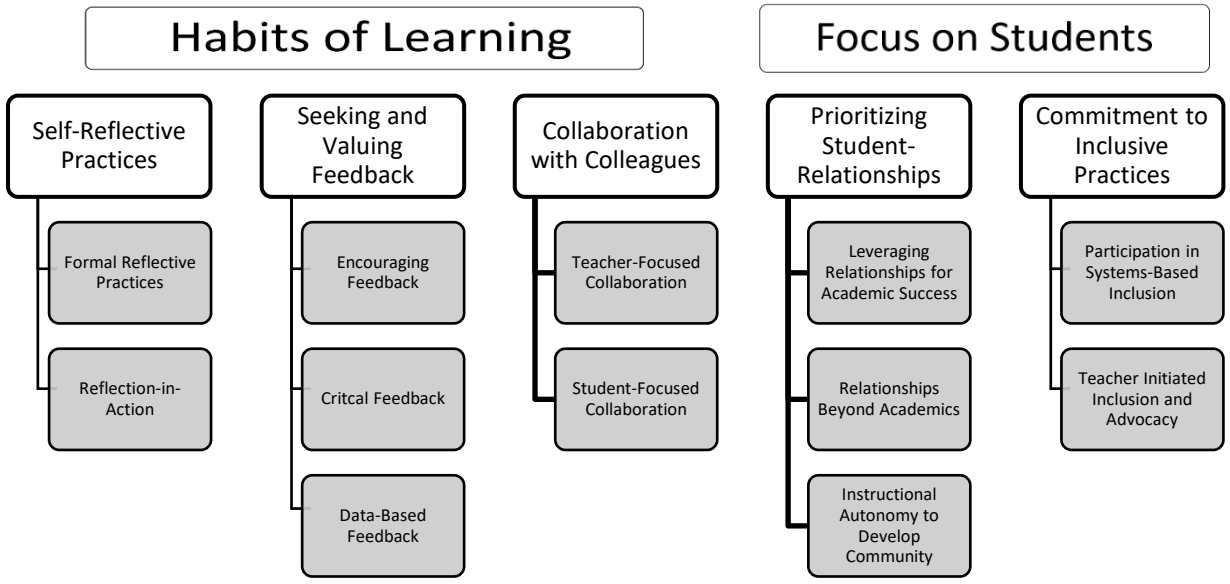


Figure 4.1. General findings by theme.

Self-Reflective Practices

Self-reflection emerged as a dominant theme in this study, as participants discussed the concept of self-reflection over 70 times throughout the course of fieldwork. According to Schön (1983), self-reflection is the practice allowing teachers and other professionals to increase their awareness of their professional knowledge and to subsequently adjust their practice based on this awareness. To clarify an important distinction, I divided the data regarding self-reflective practices into two sub-concepts of formal reflective practices and reflection-in-action. I classified formal reflection as practices that are regularly scheduled and supported by a predetermined process, while reflection-in-action refers to intuitive processes characterized by adjustments in action based on the immediately available information (Schön, 1987). Self-reflection was one of the two *habits of learning* which emerged as dominant themes in this study. Overall, 17 of the 19

participants offered in-depth perspectives on the role reflection played in developing their TSE. Participants described various ways reflection allowed them to process their effectiveness and make necessary adjustments in their practice. This habit allowed them to increase the likelihood they would meet the needs of all students.

Formal Reflective Practices

Eleven of the 19 participants described formal self-reflective practices, including the rituals and routines they adopted to engage these practices. They valued self-reflective practices and described them as practices critical to becoming and be an effective teacher. The formal self-reflective practices described by the participants ranged from weekly routines of more than an hour to short-cycle reflections occurring multiple times during an individual lesson.

Three teachers described daily journaling as the primary means of reflection. All three of the teachers who described journaling as a component of their reflective practices explained that they set time aside each day for brief journaling. For instance, Debra explained that her daily journaling not only allowed her to reflect on her individual teaching practices but also served as a way for her to process her emotions associated with challenging teaching experiences. Joanie, on the other hand, described her less frequent journaling routine as part of her self-reflective practices. She sets aside time once a week for approximately 30 minutes to think back on her teaching experiences and process these experiences through journaling. Joanie described this weekly reflective journaling as an opportunity to “collect her thoughts” and think about what she might do differently next week.

Two teachers described the use of daily reflective phone call with trusted colleagues on their drive home from school. Kelly, for example, described her nightly phone call on her drive home after school. Kelly called her mom, a fellow teacher, every evening on the drive home to

discuss their experiences. Sometimes Kelly sought specific advice, and at other times, she enjoyed a conversation with an open-minded colleague. Kelly's mother served as a friendly sounding board and listened to Kelly as she processed her daily experiences. Kelly said, "I am so thankful to have my mom as a friend and a teacher in the same district. I have become very reliant on our nightly phone calls. I feel like I'm able to let things go after I share them with my mom." Barbara also used her commute as an opportunity for reflective phone conversations. Instead of talking to a fellow teacher, Barbara reflected with her husband, who commuted at approximately the same time. She went on to describe that this practice worked well as she was able to share her thoughts with an interested listener and, at the same time, protect their family time from the potential intrusion of extended work-related conversations at home.

The reflective practices I described thus far all occurred at the end of the day or workweek. In other cases, participants described reflection as a naturally recursive process taking place during the actual teaching experience. Four participants described short-cycle reflective practices they intentionally incorporated into their teaching practice. The short-cycle reflective practices involved reflecting during teaching activities with students or during transitions between classes or subjects. For example, Mary said, "I think just constantly… even when I am meeting with the student, like I said before, I'm reflecting. I'm always checking to see if they get it." Mary deliberately made time during the class and in between classes to "stop and think" about how students responded to her instruction. Reflective practices became more deliberate throughout Mary's years of teaching.

As a middle school teacher, Thomas described taking advantage of the house structure in which he worked to increase his self-reflective capacity. Thomas worked with four other teachers as part of the core house team in his middle school. During passing time between classes,

Thomas made a point to seek out teachers who would be working with students he just taught or teachers who just taught students he was about to receive. During this time, he shared quick reflective quips about his perceived successes or failures with individual students. This process had become more formalized over the past few years as he found it to be a successful strategy in meeting the individual needs of his students. However, not all self-reflective practices shared by participants were as formalized and ritualistic as these examples. Some participants, instead, described self-reflective practices as occurring naturally or instinctively without a corresponding formalized structure.

Reflection-In-Action

In some cases, participants described their self-reflective practices as processes occurring subconsciously and naturally. Reflection-in-action, "is central to the 'art' by which practitioners sometimes deal with situations of uncertainty, instability, uniqueness, and value conflict" (Schön, 1987, p. 50). For example, Margaret said she did not realize she was a reflective teacher until she enrolled in a principal licensure course, which required more regularly written reflections. Once she realized she could be reflective, she developed skills allowing her to exercise "reflection-in-action." Although the required written reflections in her principal preparation program proved beneficial, she became more cognitively aware of the value of her reflective practices as an educator, allowing her to adjust her practices more fluidly. Other participants described their intrinsic reflective tendencies with no mention of their intent to formalize their reflective practices. For instance, Kevin described his "on the fly" style of reflection, which resulted in making instructional adjustments as needed:

> I do a lot of reflecting on the fly and within our PLCs, just being open and honest about it. If there's a certain skill coming up, whatever it might be, if I'm not confident going into that,

I'm going to ask my peers for suggestions. I'm not… afraid to ask questions. I'm not… afraid to adjust as needed.

James attributed his informal style of reflection on his ability to make quick decisions. He described the process of combining student learning data and affective information stemming from personal conversations with students to make quick adjustments in his instruction. He made a point to say he did not engage in any formal reflection other than that which was required of him. James believed overly formal reflection could hinder his ability to focus his energies on individual student needs and make the necessary adjustments to meet those needs.

Three of the participants never specifically mentioned the term "reflection." They did, however, describe their use of highly reflective practices. All three of these participants described processes allowing them to provide immediately responsive instruction to meet student needs. To support their claims, they described the student learning behaviors and the subsequent adjustments they made in their instruction. They did not, however, specifically describe the reflective thought process that led them to these adjustments. For example, Carol described a shift she made in the way she contemplated the impact of standardized test scores. Previously in her career, she viewed standardized test scores as a measure of student aptitude. The shift in her thinking concerned a new view of standardized tests. She now views and analyzes standardized test scores as a measure of her effectiveness as a teacher. She described in some detail the thought process she underwent during this inherently reflective analysis.

My findings suggested that formalized practice and reflection-in-action were not mutually exclusive. Five participants described engaging in both formal reflection as well as unplanned reflection-in-action (Schön, 1987) during the teaching process. For example, Kelly, as previously discussed, engaged in a formal reflective conversation with her mother each evening.

Kelly also described making reflective adjustments between each of her middle-school class sessions. Kelly described using the information she gleaned from student performance and student comments in classes to fine-tune her instruction so by mid-day, she had "perfected the lesson . . . until next year."

In this section, I explored self-reflective practices, one of the dominant themes in my study. I described findings related to formalized reflective practices and less formal reflection-in-action occurring during teaching and learning episodes. Self-reflective practices may also be intrapersonal in nature. In the next section, I explored the theme of seeking and valuing feedback from others, an inherently interpersonal theme.

Seeking and Valuing Feedback

Seeking and valuing feedback was the second habit of learning that emerged in my study. Participants highlighted the theme of seeking and valuing feedback throughout the data collection process. Feedback is information from outside sources that informs future instructional practice. Hattie and Yates (2015) defined feedback as "information allowing a learner to reduce the gap between what is evident currently and what could or should be the case" (para. 2). Each of the 19 participants commented on ways in which feedback fostered their personal sense of TSE and reduced the gap between their current reality and the desired state of meeting the needs of all learners. Specifically, I identified three forms of feedback participating teachers attributed to their development of TSE. In this section, I discussed these three forms of feedback: encouraging feedback, critical feedback, and data-based feedback.

Encouraging Feedback

Five of the 19 participants discussed the impact encouraging feedback exerted on their TSE development. Encouraging feedback was that which the participants described as positive

and affirming of their practices or efforts. For instance, Thomas described how encouraging feedback from his principal was very important to him when he started teaching. He explained how he relied on encouraging feedback to let him know he was on the right track and to maintain his positivity when he was feeling especially challenged. He said that feedback served as a guide for his actions and choices, not as a "pat on the back" to make him feel better. Kelly also explained how encouraging feedback influenced her TSE:

> For as corny as it sounds, I really do rely on the encouragement or the affirmation from the people around me. It really does make a difference for me to hear my principal say, you took that on, nice job, it worked out well, or you took that on, good for you, here's where we want to go next, or this is what we could have changed. Even if it's something that needs growth, having the affirmation regarding the process I have engaged in more than maybe the product or the outcome, that helps keep me where I am and helps me move forward.

The four participants who described the impact of encouraging feedback believed it contributed to their TSE by allowing them to "weather the storm" when facing challenges in the classroom or their school. Debra, for example, discussed the positive impact of encouraging feedback on her instructional planning as a new teacher. She felt overwhelmed by the burden of writing detailed lesson plans for all of her classes. When her administrator offered specific feedback that reinforced her skills related to lesson planning and allowed her to decrease the burdensome level of detail, she said she was not only able to refocus emotionally; she also became a more efficacious instructional planner.

Each of the four participants who talked about the importance of encouraging feedback described it as feedback from adults, but two of the four participants also described the impact of

encouraging feedback from students. James, for example, described in detail the process in which he engaged to fully capitalize on the feedback he receives from students via surveys. He described how he shifted his perspective on a mandatory survey from a mandate to an opportunity for meaningful feedback. He noted that the positive feedback he received from students via the survey helped him maintain his positivity. Participants described encouraging feedback as a mediating factor for the challenges teachers face, which could otherwise erode TSE. Although many participants perceived that encouraging feedback enhanced TSE, others identified critical feedback as a contributor to their TSE which indicated not all feedback that supports TSE is universally positive.

Critical Feedback

Critical feedback is information that directly calls into question or challenges the effectiveness of actions or behaviors of a teacher. The participants who described the value of critical feedback did not view the term "critical" as pejorative. Instead, they sought out critical reviews of their work and valued the resulting suggestions. Critical feedback is the opposite of encouraging feedback inasmuch as it calls for different behavior instead of reinforcing existing behavior. The data participants provided regarding encouraging and critical feedback were not, however, mutually exclusive. Of the four participants who discussed the impact of encouraging feedback, three also identified critical feedback as a contributing factor for their TSE. In all, twelve participants asserted critical feedback served as a support to their TSE.

Six of the twelve participants who discussed the value they placed on critical feedback provided examples involving their supervisors. They described the trust necessary to accept critical feedback. For example, while at one time, critical feedback was difficult for Carol to accept, she had come to embrace critical feedback from those she trusted to help her fine-tune

her ability to meet the needs of her students. Joanie also described the impact critical feedback had on her self-efficacy. Joanie took a very proactive approach to seek critical feedback by asking for critical feedback from supervisors or people in positions of authority and then holding herself accountable to be reflective of that feedback. She said, "I am constantly asking for feedback from others and just being accountable with that, but also being self-reflective. I do this out of love and care for my students." Joanie also sought critical feedback from peers and from those who reported to her. Joanie made a point to engage her assistants in reflective conversations and allowing them to provide critical feedback. She told them, "We cannot improve our program if I don't know what isn't working for you." Joanie reiterated the importance of linking feedback and reflection. She noted that deliberate reflection allowed her to stave off the tendency to become defensive upon receiving critical feedback. Not all participants sought out critical feedback, but they did come to value it.

Although Kelly came to value critical feedback, it took perseverance and support to get to that point. Kelly endured a workplace in which leaders delivered critical feedback with the intent to humiliate and shame:

> I can very clearly think of one administrator I worked for who—honestly, I was ready to be done teaching. [This principal] was not supportive . . . Not only that, leading up to that, I think that person put very unnecessary workplace stress on his staff. He treated teachers poorly and claimed he was only providing tough feedback.

After a period of building trust with the new administrator, Kelly developed the ability to embrace critical feedback as an important aspect of the many factors supporting her TSE. Both teacher-focused and student-focused feedback can be offered based on observed behaviors. In some cases, data was included as part of the feedback exchange to offer a new perspective and a

potential springboard for future actions. Observable behaviors served as the basis for both the encouraging and critical feedback, but some participants felt that feedback based on quantifiable data contributed more to their TSE.

Data-Based Feedback

Teachers in this study sought and valued data-based feedback. For the purpose of this study, I defined data-based feedback as that which included a quantifiable data component used to clarify the feedback offered. In some cases, data-based feedback affirmed existing practices like encouraging feedback did, but it also called into question existing practices like critical feedback. What sets data-based feedback apart is the way the participating teacher processed the feedback independently of someone else's judgment and allowed the data to "speak for itself."

Seven of the participants in my study identified data-based feedback as a contributor to their TSE. Dawn, for example, commented on the structures she put in place in her classroom to allow students to collect their academic data from formative assessments. She would have students review the data and provide feedback to her regarding the next steps in the teaching and learning process. She explained that this process not only offered her feedback related to her teaching, but it also engaged students in the process of generating meaningful feedback. Thomas offered a similar description of the way he engaged students in the data collection process that subsequently fueled a meaningful feedback cycle:

> You're constantly looking at feedback coming back, you know, and I think kids understand that because I'll put data charts on the wall, just on the whiteboard on how we did on a certain question related to a certain standard and I'll say okay, let's see our trend guys, what's our trend, we don't know this very well. Now is it me? Is it all of us? So what can we do differently?

The data teachers relied on as fuel for the feedback cycle came in different forms. For instance, data from the formal teacher evaluation system served as a data source for some. John Paul cited his Student Learning Objective (SLO), a goal-setting component of Wisconsin's mandatory Educator Effectiveness evaluation system, as a source for feedback-rich data. John Paul explained that many of his colleagues resisted the SLO process, but once he decided to embrace the process as an opportunity to gather data-based feedback, it became beneficial to his TSE.

Loretta said receiving data-based feedback allowed her to understand her impact as a teacher more completely. She described data as a "clarifier" which helped her see what she might otherwise take for granted. She explained the way a shift in her perspective related to data-based feedback led to a great sense of TSE. She shifted her perspective on assessment results as purely a measure of student performance to a measure of her effectiveness; as a result, she came to value her data meetings with her colleagues as an excellent source of feedback fuel to her efficacy.

Participants in this study also identified data-based feedback as a clarifier for the two other styles of feedback I identified. For instance, for three participants, data-based feedback contributed to the participants' acceptance of critical feedback. Dawn described the way a supervisor used student learning data to convince her she could employ different instructional strategies with a particularly challenging group of students. Prior to the supervisor introducing data into the conversation, Dawn had a hard time moving beyond the emotions generated by challenging student behavior. She identified this experience as a turning point in her trust with her supervisor. The experience convinced her that her supervisor was interested in working with her to improve the experience for her students by focusing on measurable objectives. In some

cases, the feedback evolved into more democratic dialogue. When this evolution takes place, the relationship between a teacher and colleagues becomes collaborative – the third of the *habits of learning* themes.

Collaboration with Colleagues

Collaboration with colleagues emerged as a major theme in my study, which I classified as a habit of learning. I defined collaboration with colleagues as working directly with other professionals toward a goal related to meeting the needs of students. Lacey, who was the subject of this chapter's opening vignette, described her desire to learn with and from others as she strived to personalize her instruction for her students. She felt working with others on a common mission supported her TSE. Like Lacey, all other participants cited some form of collaboration with colleagues as an important contributor to their TSE. Although I addressed collaboration as a theme in its own right, it was often closely associated with other thematic findings. Collaboration served as the binding agent allowing teachers to link together the multiple factors that contributed to their TSE. I have divided this theme into two categories: teacher-focused collaboration and student-focused collaboration.

Teacher-Focused Collaboration

Teacher-focused collaboration refers to instances in which teachers planned for professional skill development not directly linked to student outcomes. The teacher-focused collaboration allowed teachers to rely on each other to process challenging situations and circumstances that otherwise could erode their TSE. In all, eight of the 14 participants who cited collaboration with colleagues as a contributor to their TSE addressed teacher collaboration.

Five of the eight participants who identified teacher-focused collaboration as a contributing factor to their TSE spoke of structured collaboration, such as scheduled professional

learning communities or curricular teams. Lacey, for instance, spoke of her daily collaboration with her teaching partner. Lacey squarely focused this collaboration on the responsibilities of teaching, like lesson planning and topic coverage:

> Nowadays, the way we collaborate, we just get it done. [My teaching partner] always takes care of writing plans and throwing ideas out to get us started. We are always making sure that things are ready to roll. [My teaching partner is] doing math, and then I do reading inquiry. We're all on the same page every day. This helps us all stay focused on our kids.

Lacey's collaborative efforts made it clear she focused on supporting her teaching responsibilities. This is not to say she felt her collaboration would not positively impact students, but that the impact was indirect. Kevin shared a similar sentiment related to the way his structured collaboration with a special educator colleague supported his TSE development. He described the original collaboration as purely mechanical, characterized by "filling out the right forms" and proceeding through mandated processes. When they learned to rely on each other for support, the collaboration became supportive of Kevin's TSE.

Three of the eight teachers, on the other hand, spoke of impromptu collaboration that was a result of teacher choice, not an administrative mandate like professional learning communities or curriculum team meetings. Debra, for instance, shared multiple examples of the sort of collaboration she identified as supportive of her TSE. She viewed impromptu meetings, like talking in the hall or the teachers' lounge, as opportunities to provide and receive support. She explained that her time to meet was so limited she did not want to engage in negative dialogue. Instead, she sought out and offered support to build the emotional stamina to maintain TSE. Although some participants focused exclusively on teacher-focused collaboration, others

parlayed the teacher-focus, which indirectly supported students, to a more directly student-focused collaborative practice.

In many cases, teacher-focused collaboration was relationship-based and was designed to be emotionally supportive. I defined emotionally supportive collaboration as a collegial effort of two or more professionals designed to offer personal support for teachers who were experiencing stress or precursors to burnout. Six participants described receiving collaborative emotional support, which helped sustain their sense of TSE. Kevin eloquently described the value of collaboration in overcoming emotional attacks on TSE:

> Some days, you do have those days where things are just harder. You're in a funk . . . but I want to quickly get myself out of that because it's not fair and the students can sense that, and I don't want to let them down or let parents down . . . It's more internally and just personally feeling accountable for putting your best foot forward. When I am feeling this way, I re-center myself by reaching out to my teaching partner or other teachers in my school, I respect. Sometimes all I need is a boost or just to understand that other great teachers get down sometimes.

Lindsay depended on collaboration as a strategy to overcome emotional challenges during preservice experiences. While student teaching in a special education program, Lindsay came to realize how important it was to develop a truly collaborative relationship with her cooperating teacher. By developing this collaborative relationship, she was able to move beyond the mechanics of teaching and discuss the affective aspect of teaching students with significant challenges. She described the outcome of this collaborative relationship as something that helped her understand, “I can do this!” Emotionally supportive collaboration is unique in that it is not necessarily directly aimed at improving outcomes for students, but not all examples of

collaboration focused on improving the experience for the teacher. In the next section, I explored the highly personalized category of student-focused collaboration.

Student-Focused Collaboration

I classified student-focused collaboration as that which aims to directly benefit an individual student or a group of students. Seven of the participants in my study referenced the impact of student-focused collaboration on their TSE. For example, Kelly spoke about the importance her teaching partner played in her TSE development. Kelly valued her ability to collaborate over her skills in assessment administration, data analysis, or instructional planning to directly improve student learning. Kelly said of her partner, "She has been here ten years. I adore her and respect her. We make each other better." She went on to explain that the impetus for the majority of their collaboration were experiences she and her partner had with students they felt they were not reaching.

Debra also recognized the impact of structured collaboration on her TSE. She spoke of the way her professional learning community has contributed to her TSE. She said that her professional learning community had helped her get past the periods in her career when she felt "stuck" with a student who she "seemed to try and try to get to but just couldn't quite get there." Debra described the continual evolution of student-focused collaboration with her professional learning community. She attributed this positive evolution to trust among team members and professional learning related to the impact of professional learning communities. Debra identified these collaborative endeavors as the most impactful factors feeding her TSE.

Three participants described ways they enhanced their existing collaborative processes to create a more student-centered experience. Dawn, for instance, explained how she worked with her PLC to redesign their student assessment practices to generate student data that could serve

as a “new voice in our collaboration.” Before these changes, Dawn explained that they based their collaboration almost exclusively on teacher needs and logistics. By analyzing student data, they were able to shift their collaborative efforts in a more student-focused direction.

Mary reflected deeply on the way her own TSE has been positively impacted by her efforts to support other teachers through student-focused collaboration. Mary served as an instructional coach, and one of her coaching strategies was “student-centered coaching.” Student-centered coaching is based on the premise that the coach and coachee should focus on student learning behaviors, not teacher practices. She said this practice was designed to increase TSE by illustrating the direct impact adjustments in instruction can have on a student. Mary also described the impact student-centered coaching had on her own TSE. Mary described the way her student-centered coaching impacted her own TSE by allowing for deep reflective conversations about teacher practice that reinforced her own practices. Mary said, “Student-centered coaching has helped me realize the impact I can have as a coach on finding ways to really pinpoint the missing puzzle pieces for student success.”

Debra described her student-focused collaboration with specific colleagues for the express purpose of engaging students who somehow felt dispossessed. Debra illustrated her level of commitment to ensuring all students felt welcome and are meaningfully engaged in the educational experience. She said she frequently collaborated with other professionals throughout the school to develop plans to support the students. She cited coaches, administrators, and school counselors as collaborative partners aimed at creating a more inclusive classroom.

The three “*habits of learning*” themes of self-reflective practices, seeking and valuing feedback, and collaboration with colleagues all described the processes in which high TSE teachers engage to grow and sustain their TSE. I classified the next two themes of prioritizing

student relationships and a commitment to inclusive practices as "*focus on students*" themes as they define the laser-like focus high TSE teachers place on students.

Prioritizing Student Relationships

Prioritizing student relationships emerged as the first *"focus on students"* theme in this study. All 19 participants described the building of student relationships as a contributing factor to their TSE development. I identified teacher behaviors and actions that were aimed at learning more about the personal, social, and emotional aspects of a student's life as prioritizing student relationships. Strong student-teacher relationships contributed to students' feelings of safety and security in the school environment, increased sense of competence, and academic growth thus allowing for TSE to thrive (Hamre & Pianta, 2006).

In this section, I have divided the prioritization of student relationships into three subcategories. The first two categories were related to the goals teachers have while building student relationships — leveraging student relationships for academic success and building relationships for purposes beyond academics. The final category, valuing instructional autonomy to build classroom community, was foundational as it related to the perceived needs of the participants concerning their ability to build strong student relationships in a supportive and empowered learning environment.

Leveraging Relationships for Academic Success

Participants representing this category described ways they leveraged their ability to build student relationships in order to increase academic success for hard-to-reach students. In some cases, teachers focused these relationship-building efforts on the entire class of students, and in other cases, they focused on a particular student who required more support. As is the case

with the other themes, the examples discussed below are not mutually exclusive; several of the participants are represented in two or all three of the categories in this theme.

In all, 12 participants described the importance of building relationships for and with all students with a focus on academic growth. These teachers felt their ability to develop meaningful relationships with students generated opportunities to reach them academically. They described the building of relationships as a foundational element of their teaching. Five of the 12 participants representing this category felt building student relationships was a natural skill they possessed. They initially did not recognize this skill as a contributor to TSE. It was only with some experience that they came to realize the impact their relationship-building skills had on student learning outcomes, and subsequently, on their own TSE. For example, Robert explained that he entered the profession based on his relational skills with students. He said, "The relationships are what drew me to the profession. The curriculum and teaching came later." Robert explained that after about five years, the relationships and the instruction "started gelling," and he began feeling more efficacious. In this example, Robert focused on the impact of building relationships for all students.

James, on the other hand, offered insight into the way he focused his energy on building relationships with individual students who needed more support to find success. James explained that he tended to identify students who either minimally engaged or exhibited disruptive behavior were preventing them from reaching their potential. He described himself as a "tough" teacher who didn't allow that "toughness" to get in the way of developing strong relationships. He felt that because he was viewed as a tough teacher, relationships with students were even more significant, as the students perceived them as authentic. He also felt this authenticity was of paramount importance when working with middle school students. James described every day as

a new opportunity to build a relationship with a student who wasn't feeling connected to the learning experience. James also felt that a moral imperative to develop relationships with students were not cultural mirror images of himself.

> Every day starts over; every kid can start over every day. That's one of the nice things about teaching is that every day a kid can come in [with] a new start… So, you just don't have a time table with relationships. I mean, we have to teach kids that aren't like us.

Loretta described the challenges she experienced related to relationships and classroom community when she transitioned from a classroom teacher position to an interventionist. She highly prioritized building student relationships and derived a sense of self-efficacy from her ability to leverage these relationships for student success. When she transitioned to an interventionist, she struggled to build meaningful relationships in the half-hour increments in which she worked with her students. She described becoming much more strategic and deliberate with the building of relationships as opposed to the very natural process that unfolded in the classroom in her previous position. For Loretta, going through this transition illustrated the impact that building student relationships had on her TSE as it forced her to become more reflective and metacognitively aware of the underlying processes which contributed to student success and her TSE. Not all examples of the prioritization of student relationships directly related to academic success. In the next section, I described examples of prioritizing student relationships for social-emotional benefits or for the inherent value in the relationship itself.

Relationships beyond Academics

Nine of the 19 participants described ways the building of student relationships fostered their TSE regardless of the relationship's impact on academic learning. These participants stressed the inherent value of building student relationships. They also noted the importance of

social-emotional learning as an end in itself and not necessarily a means to the end of academic success.

Joanie, like others, was originally intrigued by being an educator based on the value she placed on relationships. Joanie said, “I wanted to build those relationships with my students from the beginning. This was my number one.” She stressed that the relationship itself was the goal and any benefit beyond that was appreciated but was not the specific aim. Barbara expressed a similar sentiment. She stressed the importance of preparing students beyond academic expectations. She discussed the value of making mistakes with her students and allowing them to make mistakes with her. She described this as preparation for life, not preparation for school. She went on to explain that she had attempted to parlay relationships with students into relationships with students’ entire families, as she feels the impact of the relationship would be amplified.

Kelly described prioritizing relationships with students so much that she had directly worked with other teachers whom she felt had lost sight of the importance of student relationships. She described approaching a teaching partner who she sensed had given up on a student who was exhibiting some antisocial behaviors. She persistently worked with this teacher to help him realize that his resistance to developing a meaningful relationship had created a barrier that would be impossible for the student to overcome. At one point, Kelly decided to serve as a surrogate relationship builder with the student even though he was not in her class.

Carol described an interesting dynamic between relationships with teachers she coaches and the teacher’s focus on student relationships. Carol emphasized social-emotional learning as a cornerstone of her own teaching practice. After she began serving as an instructional coach, she starting using some of the same techniques she used with students to build relationships with teachers so they could, in turn, develop improved skills to build relationships with their own

students. Carol explained that the importance of building relationships with students had changed throughout her years in the classroom. As students were coming to her with more mental health needs and potentially less support at home or in the community, the need for strong relationships with each individual student increased dramatically. The building of student relationships does not occur in a vacuum. Classroom community is a concept widely accepted as environmental support for strong student relationships (Charney, 2015). In the next section, I explored the way autonomy to develop classroom community supports TSE.

Instructional Autonomy to Develop Community

Six participants described their efforts to build authentic relationships with their students as a natural and inherent part of their identity as a teacher. They described the instructional autonomy to build classroom community as a necessary factor in their TSE development. They did not develop relationships in an effort to increase student engagement or improve quantifiable learning results, but developed relationships as an essential element of their self-efficacy. To do this, these participants placed a great deal of value on the autonomy to design their instructional program to maximize classroom community.

For example, Thomas described the building of relationships as the most important element of his TSE profile. He said, “It (building relationships) is an art. It takes time, and sometimes it is challenging, but you have to know you will get there. Somehow you will get there. You have to.” He went on to explain how important it was for him to have a principal who understood the importance of a strong classroom community for fostering positive student relationships. He said he had worked for principals who were very supportive of this and others who demanded a strictly academic focus. Thomas explained that working for those who understood and valued the need to create classroom community positively impacted his TSE.

Lindsay also identified developing authentic relationships with students as a critical factor in her ability to engage students in the learning process. Lindsay described her process of developing relationships as "trial and error," but something she believed would engage students. Building relationships with students not only fed her self-efficacy, but inspired her to become a special educator in the first place. She explained that her future-focused concept of classroom community is very different from that which she experienced as a student. Because Lindsay was studying to be a special educator, she had worked with her cooperating teacher to develop an understanding of how to apply the concept of classroom community in new teaching environments. She wanted to gain an understanding of the classroom community-related differences between a regular education setting and a small group, skill-specific environment in which she would likely operate as a teacher of students with emotional and behavioral disabilities.

The participants in this category discussed the importance of student-to-student relationships, while in the other two categories, participants explored relationships between teacher and student. Although the participants representing this category valued the autonomy to develop classroom community to foster strong teacher-student relationships, they also believed the classroom community could support strong student-to-student relationships. Strong student-to-student relationships also served as a contributing factor to their TSE.

For example, Lacey cited her training in Responsive Classroom techniques as a major contributor to her TSE. She explained how she learned to build a classroom community of students who could support one another. She felt she was able to share in the responsibility of building strong relationships with all of the students, and that although her school was no longer officially engaged in work with Responsive Classroom, the techniques she had learned had

become an important component of her repertoire. She described herself as fortunate in that all of the principals she had worked for allowed her the autonomy to build the classroom community in the way she felt appropriate. Joanie's Responsive Classroom training was also foundational in the development of her commitment to inclusive practices; the theme explored in the next section.

Commitment to Inclusive Practices

A commitment to inclusive practices for students emerged as the second "*focus on students"* theme in this study. This theme, like the previous theme of prioritizing student relationships, related to instructional and programmatic practices teachers associated with increased TSE. Inclusive education is grounded in the belief that all students deserve a meaningful educational experience with their peers (Villa & Thousand, 2017).

Sixteen of the 19 participants shared ideas of how they strived to develop an inclusive environment where all students could be successful and how that inclusive environment positively impacted their TSE. Inclusion is a democratic set of beliefs based on the idea that all students deserve to learn, grow, and succeed in the classroom experience with their peers. School professionals foster inclusion by designing supports to ensure all students can be successful in the core academic program. In this section, I divided inclusive practices into two categories. The first category was the commitment to existing systemic inclusive practices that are part of the district's or school's expectations. The second category was teacher-initiated inclusive practices, which the teacher individually implements to increase the inclusive nature of their classroom environment.

Participation in Systems-Based Inclusion

Nine participants described how participating in system-wide inclusive practices contributed to their TSE. System-based inclusive practices are structures that have been developed at the district or school level. These practices typically include opportunities for professional development. They can be voluntary or mandated. An example of a system-wide inclusive practice is co-teaching. Co-teaching is an instructional framework in which general educators and special educators share the responsibilities for planning, instructing, and assessing

a class of students, including students with and without disabilities (Schwartz, 2018). Kevin described the way co-teaching changed his perspective on the capabilities of students with special education. Prior to his district's co-teaching initiative, Kevin was a relatively new teacher accustomed to special education programs predicated on specialized pullout services with little responsibility from the classroom teacher, save for an annual IEP meeting. The inclusive co-teaching initiative changed Kevin's perspective and forced him to collaboratively find ways to meet the needs of all of his students. Working in a co-teaching environment allowed Kevin to learn that his teaching could impact a much broader spectrum of students than he previously believed.

Barbara said that her focus on high-quality questioning strategies for students had increased her ability to meet the needs of all students. She described the pressure she was receiving from parents of highly capable students used to having their children pulled out of the regular classroom to receive enrichment. Barbara had come to believe that this enrichment was not as valuable as being part of a heterogeneous classroom experience. By focusing on differentiated questioning strategies, she was able to create a learning environment where all students were appropriately challenged. This was challenging at first but eventually positively impacted Barbara's TSE by illustrating to her that meeting the needs of all her students was well within her control.

Loretta served as an instructional interventionist, so she focused her energies on designing and implementing interventions for students who struggled in reading and mathematics but did not qualify for special education services. She had recently transitioned from a classroom teacher to an interventionist position. When she began her role as an interventionist, she offered intervention through 30-minute direct pullout services, where she

removed students from their classrooms. One of the expectations placed upon Loretta when she began her new role was to create a more inclusive delivery model. She did just that. As a result of the more inclusive model, Loretta found herself supporting classroom teachers and improving their ability to meet the needs of all their students without removing them from the classroom as frequently. Not only did this generate improved student learning results, it positively impacted Loretta's TSE. Not all teachers are fortunate enough to work in districts or schools that have systematic supports in place to increase inclusion.

As I wrote in my introduction, I focused my attention on the topic of TSE because of reactions I witnessed with teacher colleagues during the early phases of a political initiative focused on school reform and teacher accountability. Although I did not ask any specific questions about teacher accountability in my interview, eight participants in my study discussed teacher evaluation processes as part of their description of their commitment to inclusive practices for their students regardless of ability or perceived deficits. Five of these eight participants referenced the way they compared inclusive high expectations for their students to the high professional expectations for teachers reflected in the accountability measures. The other three participants who addressed teacher accountability measures explained the way they welcomed the accountability measures that focus on student performance since they reflected the same high expectations for student learning with which they so closely agreed.

The specific references to the supervision system related to three different aspects of the supervision systems Student Learning Objective (SLO) component of educator effectiveness. SLOs are teacher-generated goals for student learning that account for fifty percent of the teachers' total evaluation. All of the participant references to SLOs were framed positively and linked to the concept of holding high expectations for students. For example, Margaret said, "But

this year that's my SLOs all about the 10th grader's ability to identify devices being used by all the crafts and structures. So I'm kind of like, all right, well this is easy to document, so I'm going to just do that and make sure my SLO is good for kids". John Paul capitalized on the SLO requirement by using it as a metaphor for his high expectations for all of his students. He described this as an element of his TSE as it demonstrated his confidence in his abilities. He said, "Hey, I'm gonna ask you to write a paragraph, and oh, by the way, this is for my SLO that we've talked about, so remember the key parts." He went on to explain that he felt there was no reason to resist the accountability measures, and it was better to embrace and use them to leverage improved student learning outcomes. In the next section, I described the experiences of teachers whose TSE was positively impacted by independently seeking out and designing more inclusive instructional models.

Teacher-Initiated Inclusion and Advocacy

In some cases, teachers assume a leadership role in offering or advocating for inclusive practices. Twelve participants described a commitment to inclusive practices that required their initiative, as the inclusive practices were not part of a district or school initiative. As was the case in previous findings, these two categories are not mutually exclusive: 7 of the 12 participants expressed a commitment to both system-wide inclusive practices and teacher-initiated collaboration.

Margaret emphasized the concept of “giving hope” as a pillar of her belief system. She said that every child deserved to have a strong sense of hope about their future and their ability to succeed in school. She viewed it as her responsibility to give hope. One of the ways Margaret believed she gave hope was by providing an inclusive experience. She explained that hope is not one dimensional. Some students require academic hope, while others may require social-

emotional hope. She believed she increased a sense of hope by creating a learning environment in which all students felt welcome and were appropriately challenged.

Margaret described two different ways she focused on creating inclusive environments to foster hope. First, Margaret strongly advocated for all of her students. One of the ways she advocated for her students was by demanding that students with special needs maximized their time in the classroom. Margaret's advocacy occasionally found her at odds with other professionals in the school who believed her students needed more service delivery outside of the general education setting. She described this as a challenge that she accepted each time she went out of her way to prove that all students could be successful in her classroom.

The other way Margaret fostered an inclusive learning environment was by focusing on classroom community. Margaret stressed the importance of an inclusive belief system not only as the domain of the teacher but also the students in the classroom. Margaret systematically developed a classroom environment where students were explicitly taught how to work collaboratively with one another. This instruction on collaborative work also included a focus on respecting and appreciating differences. Margaret had so wholly embraced this concept of giving hope that she voluntarily coached other teachers in the building on their hope-giving capacity. If she saw a teacher who seemed to be giving up on a student, she readily stepped in and tried to build that teacher up so they could step back in the classroom and give hope to the students who needed an advocate. This underscores the relationship between the two student-focus themes. One of the supports for an inclusive classroom environment was strong relationships among students and teachers. The *habits of learning* and student focus themes are often exercised with other colleagues.

Factors that Inhibit TSE

One of my ancillary research questions addresses conditions that limit or inhibit the development of TSE. My findings suggest a rather simple relationship between factors that foster TSE and factors that limit TSE. When a teacher who strives to be efficacious works in an environment lacking the previously identified factors that support TSE, self-efficacy can be eroded. I have identified three environmental conditions that are potentially detrimental to TSE development. They included a lack of collaborative support, lack of meaningful feedback, and insensitive leadership.

In other words, the absence of the five themes I have identified that support TSE development can result not only in a lack of TSE growth. If the working conditions of a teacher are in opposition to the five themes, a teacher may experience regression in their level of TSE. Each of these limiting factors relates directly to a previously identified contributor to TSE. In the subsequent sections, I described how the lack of contributing factors for TSE might actually erode TSE.

Lack of Collaborative Support. Not all participants in my study felt they experienced sufficient professional collaboration. Dawn spoke of her longing for a more collaborative environment. She explained that the lack of collaboration had forced her to commit to her own professional learning and growth. She said, “It’s just sad because a lot of my professional growth has been on my own, and with only a few key colleagues.”

Teachers who lacked collaborative support were at a disadvantage for developing TSE. Loretta discussed the challenges she faced when she transitioned from a classroom teacher to an interventionist position. She described the lack of collaborative support that was built into the implementation of the new intervention program. The schedule and resources to be used for

intervention were meticulously planned, but little thought was given to the need for collaboration among classroom teachers and interventionists. Loretta described feeling as if she were intruding on the teachers' domain when she was attempting to plan collaboratively for the intervention. When the classroom teacher was naturally collaborative, this was not a problem. However, if the classroom teacher lacked the desire to collaborate, Loretta was met with resistance. Loretta said this initially impacted her sense of self-efficacy, and she wondered if she should return to the classroom, where she was more autonomous.

Lack of Meaningful Feedback. Many factors that support TSE exist within the environment of the school. I previously identified leadership characteristics that support TSE, such as detailed and actionable feedback, but the inverse is true as well. Insensitive leadership can directly limit TSE development. Dawn, for example, described the negative impact of an insensitive school leader. This particular leader did not build trust and had what Dawn described as a micromanaging style. Even when this leader would periodically share some positive feedback, Dawn perceived it to be insincere. Dawn described the sensation of having her TSE chipped away during every encounter with this leader. The erosion of TSE was so significant that Dawn seriously considered leaving the profession. The negative impact of an individual leader can be amplified if the insensitivity is scaled up to the systems level.

Insensitive Leadership. When a school or district fails to demonstrate value and the factors I have identified as TSE contributors, teachers can find themselves in the tenuous situation of having to fend for themselves as they seek to increase their effectiveness. John Paul, for instance, described the disconnect between the rhetoric of district leaders and the reality of the structures in his school. John Paul described himself as a very collaborative individual but found an inherent lack of collaborative support in his school. He went on to explain that the lack

of common planning time and rich dialogue limited his ability to collaborate meaningfully with others. His district frequently espoused the importance of collaboration, but he found himself doubting their sincerity. This lack of systemic support for collaboration initially negatively impacted John Paul's TSE until he realized he needed to seek out collaborative opportunities despite the lack of district support.

Because all of the teachers I interviewed self-identified as high TSE teachers, they actively sought out sources to their TSE. These high TSE teachers were also sensitive to the absence of these factors. In some cases, the absence of the factors eroded their TSE. In other cases, participants pursued other professional opportunities where their TSE could be supported. These high TSE teachers valued their own efficacy too highly to let it sit dormant, or worse yet, be diminished.

Summary of General Concepts

In this chapter, I set out to present the findings related to the study's general research question, which focused on identifying contributing factors to TSE. The 19 participants who were involved in the qualitative portion of my study shared what they felt to be the greatest contributors to their TSE. Based on the data collected from these 19 participants, I organized my findings into five themes: self-reflective practices, seeking and valuing feedback, collaboration with colleagues, commitment to inclusive practices, and prioritizing student relationships. I further broke down each one of these themes into subcategories and identified the subcategories that were applicable to the majority of participants regardless of their levels of experience. In chapter six, I discussed the findings from the perspective of participants' career stages, but first, in the next chapter, I offered a theoretical analysis of the general findings contained within this chapter.

CHAPTER 5: GENERAL THEORETICAL ANALYSIS

Teachers seeking to develop and sustain self-efficacy engage in complex and, in some cases, elusive processes. To maximize TSE, they must rely on the support of others, but by itself, this support cannot generate TSE. To capitalize on the latent power of TSE, teachers must actively engage in agentic practices such as actively seeking and acting on feedback or advocating for individual student needs. The "latent power" of TSE refers to the idea that the potential for growth lies dormant without activation by teachers themselves.

My findings related to general self-efficacy supported the research I explored in my review of the literature on self-efficacy. Bandura's (1976) seminal work identified four sources of self-efficacy. The five themes that emerged from my study directly aligned with these four sources. Table 6.1 illustrates the alignment between Bandura's four sources and the themes in my study. For each theme, participants offered ample evidence of the alignment between the way their manifestation of the theme and Bandura's four sources – mastery experiences, vicarious experience, social persuasion, physiological and emotional states. For example, the seeking and valuing feedback theme aligned with Bandura's mastery experience and social persuasion sources. Teachers received feedback from a variety of sources. High TSE teachers refined their practice based on that feedback and continually moved toward mastery of the concept of skill for which they received feedback. The feedback theme also carried the potential weight of social persuasion as high TSE teachers sought feedback from those they consider positive role-models.

Alignment of Themes and Bandura's Four Sources of Self-Efficacy

Theme		Alignment to Bandura's (1976) Four Sources
Habits of Learning	Self-Reflective Practices	Mastery Experiences
	Seeking and Valuing Feedback	Mastery Experiences, Social Persuasion
	Collaboration with Colleagues	Social Persuasion, Vicarious Experiences
Focus on Students	Commitment to Inclusive Practices	Mastery Experiences, Physiological and Emotional States
	Prioritizing Student Relationships	Physiological and Emotional States, Vicarious Experiences

Table 6.1: Alignment of Themes and Bandura's Four Sources of Self-Efficacy

Additionally, my research supported the emergence of collective-efficacy as a vital extension of the existing body of research on self-efficacy (Donohoo, 2017; Fullan, 2016; Hattie, 2016). Collective efficacy is the degree to which a school staff believes in the power of their collaborative efforts to positively impact student outcomes (Donohoo, 2017). Bandura (1986) also highlighted the impact of collective-efficacy as a new and promising frontier in the research on self-efficacy. My findings not only supported the concept of collective efficacy as a natural extension of TSE. They also supported the literature on the impact of collective efficacy on TSE. Fullan (2016), for example, explained that the collective efficacy of teachers in a school has a greater impact on student outcomes than the sum total of each teacher's individual TSE. Fullan went on to explain that a strong base of collective-efficacy could support the individual TSE of its members. My research strongly supported this concept, with the majority of participants

describing their desire to work in an environment where everyone believed in the students' capacity as much as they did.

I conducted a more extensive review of literature related specifically to TSE. My related findings also supported the body of scholarly research regarding TSE. I focused my review of literature on components of TSE, factors that contribute to TSE, the impact of TSE on teaching and learning, and the risks associated with low TSE.

The existing general body of scholarly research related to the components of TSE suggests TSE is generated through a combination of personal self-efficacy along with knowledge and skills related to teaching (Bandura, 1993). My findings supported and reinforced this concept as high TSE teachers offered data related to their general TSE and the ways they harnessed their TSE to continually develop skills to meet the needs of their students.

Tschannen-Moran and Woolfolk-Hoy (2001) defined three components of TSE that can be measured separately. These components included student engagement, instructional strategies, and classroom management. My findings were well aligned with the supposition that TSE is comprised of these three components of TSE. Participants in my study offered ample evidence of their TSE related to these three areas. In fact, all five of the themes that emerged from my study aligned directly with these three components. Subsequent scholars helped clarify these components by examining factors that contribute to each of them (de Jong, Mainhard, Tartwijk, Veldman, Verloop, & Wubbles, 2014; Sezgin & Erdogan, 2015; Turkoglu, Cansoy, & Parlar, 2017).

I designed my research to focus primarily on the contributing factors to TSE development. My findings supported and reinforced the existing body of research related to the contributing factors of TSE. The five themes of engaging in self-reflective practices, seeking and

valuing feedback, collaborating with colleagues, engaging in inclusive practices, and prioritizing student relationships all clarified and aligned with existing research. For example, several scholars found high-quality feedback and reflection contribute to TSE (Walker & Carr-Stewart, 2006; Kass, 2015; Calik, Sezgin, Kavgaci, & Kilinc, 2012). Stipek (2012), found inclusive practices and authentic student relationships were associated with high levels of TSE.

Although my research population consisted of high TSE teachers, my findings also supported existing research on the risks of low TSE; specifically teacher burnout (Skaalvik & Skaalvik, 2010; Zee & Koomen, 2016). Some participants in my study reflected on times in their careers when they found their TSE being depleted. All of these participants described slipping down a path toward burnout until their TSE was encouraged by one or more of the five themes.

The definitive finding in my study also aligned with the research on TSE; high TSE teachers generally fostered improved opportunities for student learning and personal growth (Gibson & Dembo, 1984; Guskey, 1987). Without exception, every participant anecdotally associated their TSE with improved student outcomes. Participants associated both academic and social-emotional improvements in their students with their TSE, further supporting the existing body of research.

In this chapter, I used Bandura's (1986) Social-Cognitive Theory (SCT) to analyze the *habits of learning* themes and Mezirow's (1991) Transformative Learning Theory (TLT) to analyze the *focus on students* themes. After I analyzed the combined data collected from survey research as well as in-depth interviews, I identified five central themes related to the way teachers develop and increase TSE: (1) engaging in self-reflective practices; (2) seeking and valuing feedback; (3) collaborating with colleagues; (4) making a commitment to inclusive

practices; and, (5) prioritizing student relationships. I further organized the themes into two major categories by combining related themes (see Figure 5.1).

I classified the first three themes of engaging in self-reflective practices, seeking and valuing feedback, and collaboration with colleagues as "*habits of learning*" themes. Habits of learning represented the foundational ways teachers thought about and learned from their experiences with students. Engaging in continuous professional learning proved necessary for the development of TSE. The habits went beyond attending professional development activities. These habits fostered a growth mindset and metacognition that fueled transformative professional learning (Dweck, 2007; Mezirow, 2012).

I categorized the next two themes, prioritizing student relationships and a commitment to inclusive practices, as "*focus on students*" themes. The actions of teachers with high TSE went beyond the typical "*habits of learning*" employed by teaching professionals who continuously focus solely on their practice. High TSE teachers avoided the pressure to focus on compliance-based implementation of narrow curricular goals and instead favored a laser-like focus on student relationships and fostering a sense of purpose and belonging in an inclusive learning environment.

Figure 5.1 illustrates the relationship among the grouping of the themes and the analytical theory I used to explain how the grouped themes contribute to the TSE development of teachers. Both the *habits of learning* and the *focus on student* themes worked together to support TSE development for teachers regardless of their career stage. The figure explains how TSE development is supported by processes and conditions represented as themes in the center of the circle.

For example, the themes of collaboration, self-reflection, and seeking and valuing feedback all supported TSE development and represented habits that support continual learning and growth, which I describe as habits of learning, as illustrated in the next ring in the figure. The next ring represents the individual elements of the theories I relied on to analyze my findings. In the figure on the left, they include personal, behavioral, and environmental factors as well as self-concept and self-efficacy – key elements to Bandura's (1986) Social Cognitive Theory (SCT) which is represented as the outermost ring serving as the unifying theory for *the habits of learning* themes.

The circle on the right represents the relationship between the *focus on student* themes and Transformative Learning Theory (Mezirow, 1996). The inclusive practice and student relationships make up the *focus on students* themes. High TSE teachers manifest both of theses in a transformative sense. I used the concepts of the ten-step process of transformative learning and evolving frames of reference in my analysis of the two themes. For instance, Mezirow (1996) described transformative learning as characterized by the development of a more inclusive frame of reference and deeper relationships.

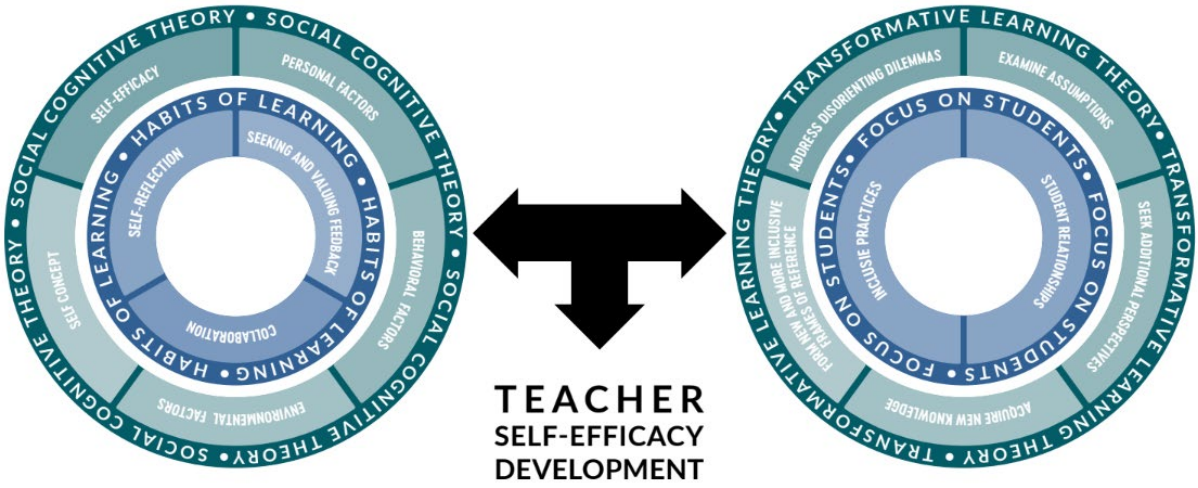


Figure 5.1. General analytical frameworks applied to the five general themes for building TSE.

In this chapter, I analyzed the five themes using two predominant theories. To analyze of *habits of learning*, I employed Bandura's (1986) social cognitive theory (SCT). SCT is based on the premise that people do not learn and behave simply by responding to their environment, but rather, that people are agents in their development. They interact, observe, and respond to their environment reciprocally (Bandura, 1986). This reciprocity is grounded, as the theory's name suggests, in social interactions and cognitive processing. SCT includes several sub-theoretical components, such as outcome expectancies, social learning, identification, and self-efficacy (Bandura, 1986). SCT has also inspired considerable research from scholars who followed and extended Bandura's original theory. The results of their studies expanded context-specific understanding of the impact of TSE on student learning and teacher development (Alivernini & Lucidi, 2011; Zee & Koomen, 2016). In this analysis, I relied not only on Bandura's scholarship related to SCT but also related theories, such as human agency and self-efficacy (Bandura, 2000).

In order to analyze the "*focus on students*" themes, I adopted Mezirow's (1991) transformative learning theory (TLT) to examine how acts of transformation represent both the process and product characteristics of teacher learning. Transformation forever changes teachers' professional identity and pedagogy. TLT provides a useful framework for understanding the learning experiences of teachers as part of their TSE development. TLT explains how adults process "disorienting dilemmas," which challenge their existing cognitive paradigms, beliefs, and the ways they see the world, or "frames of reference" (Mezirow, 1991, p. 7). A cognitive paradigm describes the way an individual processes information through perceptual and symbolic means (Mey, 1992). A frame of reference is comprised of beliefs and assumptions, not critically or consciously examined by individuals. TLT also holds that autonomous thinking is a result of transformative learning and is "essential for full-citizenship in democracy and for moral decision making," which are two essential elements of a quality educational experience (Mezirow, 1997, p. 7).

Mezirow outlined a ten-phase process of transformative learning that begins with the disorienting dilemma (see Figure 5.2). The process then moves into critical reflection, critical discourse, and then some level of integration of the newly acquired frame of reference. Teachers who develop high levels of TSE can go through transformative experiences that result in paradigm shifts in the way they perceive their potential impact on students.

I returned to SCT for my analysis of the collaboration theme by using Bandura's (1986) triadic reciprocity model, which asserts that personal, behavioral, and environmental factors work multi-directionally to influence behaviors and learning (Bandura, 1978). These factors not only influence the individual, but they also influence one another. This model is useful for

understanding how collaboration impacts personal, behavioral, and environmental factors, which can, in turn, foster TSE.

Figure 5.2. Mezirow's (1991) ten-phase transformative learning process.

Habits of Learning Themes

Learning is a process of paramount importance in a school because student learning is the primary object of education. Highly skilled teachers are the most important factors for student learning success (Hattie, 2012; Marzano, 2013). This is why the learning process of teachers plays such an important role in student learning. Teachers who develop a strong sense of TSE possess two *habits of learning*—self-reflective practices, the seeking and valuing of feedback, and collaboration with colleagues—that serve as fuel for their continual improvement.

These three habits work together to allow a teacher to operate in a continual state of professional growth by learning from the experiences of others through feedback and from

themselves through reflection. These habits define the "how" of TSE development because they describe the cognitive processes that lead to the learning necessary to develop and sustain TSE. A habit of learning is an embedded practice that allows an individual to activate metacognition to analyze their own actions. *Habits of learning* are foundational to the development of TSE as they promote growth.

Self-Reflective Practices

Self-reflection, one of two "*habits of learning*," was essential to each participants' TSE development. Although participants' reflective practices differed in style, all participants described self-reflection as a primary contributor to their TSE development as it was a necessary practice allowing them to identify other factors affecting their TSE. In other words, teachers used their self-reflective practices to illuminate and seek out other contributing factors.

I used Social-Cognitive Theory (SCT) to elucidate the ways self-reflection can support TSE development. SCT is based on the premise that people can learn not only from others but from themselves. SCT views people as agents in their development, interacting, observing, and responding to their environment reciprocally (Bandura, 1986). This reciprocity is grounded, as the name suggests, in social interactions and cognitive processing. My analysis of the self-reflective practice theme led me to create a matrix to categorize the self-reflective practices in my findings. The horizontal axis categorizes practices as individual versus collaborative, while the vertical axis categorizes practices as casual versus formal (see Figure 5.3). The individual versus collaborative axis relates directly to the social aspects of SCT, while the formal versus informal axis relates to the cognitive and behavioral aspects (Bandura, 1986).

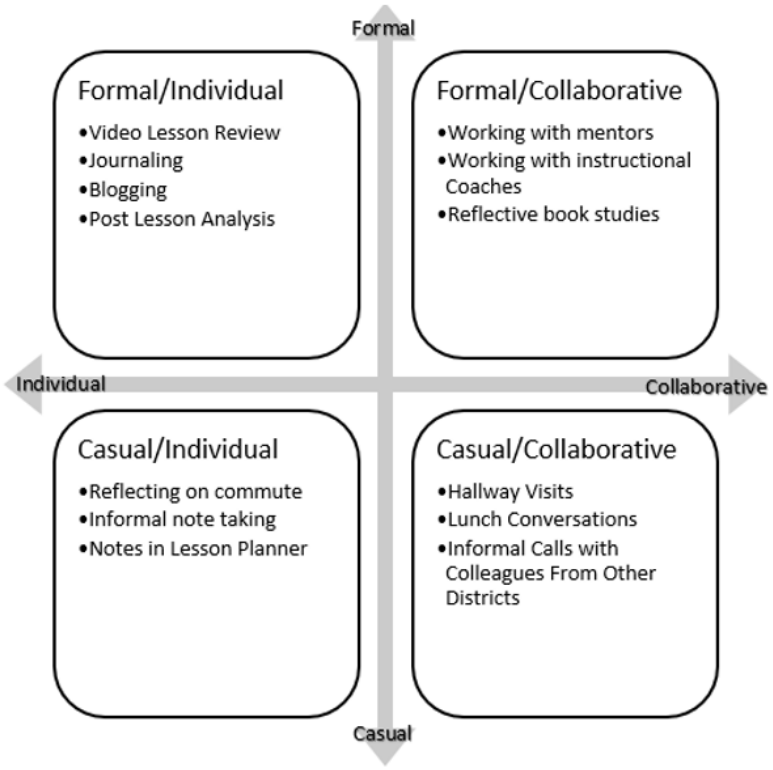


Figure 5.3. Self-reflection matrix based on SCT.

This matrix allows an analysis of the cognitive aspects of reflection, which ultimately reside in the individual, but may also be supported collaboratively. Bandura suggested information "becomes instructive only through cognitive processing of efficacy information and through reflective thought" (Bandura, 1986, p. 79). This cognitive processing is often actualized through self-reflection. This matrix represents those different ways the cognitive process of self-reflection can impact TSE in multiple ways depending on the self-reflective inclinations of the teacher.

The participants who placed the greatest emphasis on the impact of self-reflection on their TSE engaged in more formal self-reflective practices. These practices were scheduled, habitual, and purposeful. The practices often included a written component and a responsive plan of action moving forward. However, no such distinction was found across the individual-

collaborative continuum. It appeared just as likely that participants who stressed the importance of self-reflection on their TSE would engage in individual reflective practices as they would in collaborative endeavors. For instance, Lindsay highlighted the importance of collaborative online reflection in the development of her TSE, while James stressed the importance of quiet solitude to enhance his self-efficacy.

An apparent limiter of TSE for some is the inability to engage in self-reflective practices effectively. Participants described turning points in their TSE development related to enhanced self-reflective skills. Often, collaborative support from colleagues such as supervisors, mentors, or instructional coaches enhanced these reflective skills. Redmond (2010) described four processes woven into the fabric of SCT: self-evaluation, self-observation, self-reaction, and self-efficacy. Although this study was concerned directly with self-efficacy, I have considered all of these processes because of their inherent interdependence (Redmond, 2010). This analysis considers how three of Redmond's processes (self-observation, self-evaluation, and self-reaction) can further clarify self-reflective practices. The participants all described self-reflective practices in which they engaged. Some of the participants *observed* their own behavior and choices, while others *evaluated* their behaviors and choices. Self-reaction is the most advanced of the three processes as the participant must take action in response to what they observed and evaluated (see Figure 5.4).

I then analyzed these categorized practices using the lens of the four central processes of SCT to better understand the theoretical relationship among the four SCT processes and the finding of self-reflection. I viewed self-reflection as the overarching concept that exists as the end result in the systematic application of self-observation, self-evaluation, and finally, self-

reaction. These processes are naturally agentic as they serve as a building block for an individual to exert a level of control in their own learning process.

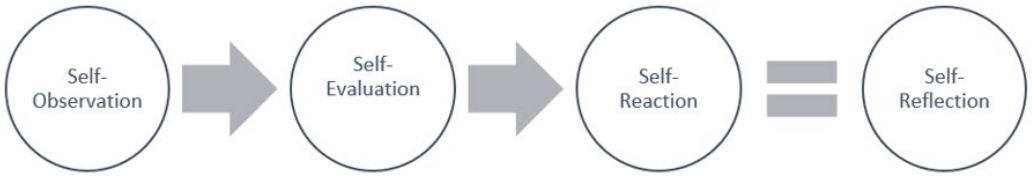


Figure 5.4. Three processes leading to self-reflection (Redmond, 2010).

Self-reflection begins with self-observation. One must be able to view one's actions from the perspective of an outsider looking in to comprehend one's agentic impact on one's environment. The participants in my study offered insights into the ways they went about observing their personal teaching practices. They described individual practices such as video-recording instructional delivery for subsequent viewing and reflection and note-taking immediately following a lesson. They also described collaborative observational practices such as using mentors or instructional coaches to observe and serve as "professional mirrors," allowing for a collaborative conversation regarding the observation. Experts in SCT have long advocated for practices to improve self-reflective capacity, including developing skills in self-observation (Hall & Simeral, 2009). Indeed, some participants recognized they lacked a predisposition to self-observation.

Some teachers who lacked self-observation skills recruited colleagues to offer specific feedback and guidance based on observations. I categorized these sorts of reflective practices as "collaborative" in the self-reflection matrix, even though they were occasionally implemented due to a lack of reflective tendency, not necessarily out of a desire to be more collaborative. For instance, Lindsay described the way she sought out other reflective individuals to process through challenging circumstances she encountered as a student-teacher.

Participants who engaged in more formal self-observation practices were more likely to engage subsequently in self-evaluative practices. Individuals who engage in self-evaluative practices synthesize the information they gather through self-observation and apply value allowing the data to inform potential next steps (Zimmerman, 2010). In my analysis of self-reflective practices, I discovered a potential limiter to self-reflection. Teachers who primarily engaged in casual and informal self-observational practices did not instinctively move toward self-evaluation practices. Instead, they only transitioned to self-evaluation when a person or individual in a position of authority mandated it.

Some level of social interaction, formalized at the request or requirement of someone else, predicated all of the self-evaluative practices. For example, the Educator Effectiveness model of teacher evaluation in the state of Wisconsin requires teachers to self-reflect. The only participants who mentioned the value of the self-evaluation component of their evaluation system also recognized the role of self-reflection in their TSE development. Individuals who demonstrated self-observation skills but lacked self-evaluative skills required some level of collaborative support or mandate to serve as a bridge toward the realization of self-reflection — moreover, those teachers who proactively sought out collaborative, reflective experiences naturally engaged in self-evaluation. For self-reflection to be impactful and truly feed TSE, one must not stop at self-evaluation.

The participants who valued the role of self-reflection as a contributor to their TSE naturally described their responses to the reflective process. Participants often offered the richest examples of self-reflection when they were not aware they were discussing reflection. Teachers who naturally proceed through the three-step reflective process quickly make adjustments in their teaching without being metacognitively aware of the steps that informed the adjustment.

The final stage in the agentic process toward self-reflection is the self-reaction stage, which finds the individual responding in some way to previous information gathered and synthesized through self-observation and self-evaluation (Redmond, 2010).

All of the participants who attributed some level of their TSE development to self-reflective practices included examples of content reflection. These examples of content reflection included a reflection on student learning results, the impact of individual lessons, and the affective aspects of teacher-student interactions. For instance, Debra described the way she relied on assessment data as a source of self-reflection as opposed to merely a source of student evaluation. Eight participants described examples of process reflection in their TSE development journey. Barbara, for instance, described reflecting deeply on the processes that govern her professional learning community (PLC). Through this reflective process, Barbara came to realize that her PLC was an underutilized resource that could be enhanced by formalizing processes and supports. To implement these improvements, she requested and was granted the opportunity to serve as her school's PLC leader.

Self-reflection serves as the basis for developing TSE. It is through the self-reflective process that teachers identify potential contributors to their TSE or identify ways to mitigate limiters to TSE. While self-reflection is an internal cognitive process (Schön, 1987), it is not always as individualized as the moniker might suggest. In fact, teachers often found that collaboration was essential to enhance their TSE. In the next section, I explored the theme of seeking and valuing feedback, which can enhance reflective practices by providing new, external information to consider.

Seeking and Valuing Feedback

I classified seeking and valuing feedback a "*habits of learning*" theme because the proclivity to actively seek feedback served as a foundational habit supporting TSE. In my analysis of this theme using Bandura's SCT, I focused on the four sources of self-efficacy Bandura initially identified (1986). The sources include mastery experiences, vicarious experiences, social persuasion, and physiological or emotional states. Each of the three subcategories within the seeking and valuing feedback theme, which include encouraging, critical, and data-based feedback, can be more thoroughly understood by examining them through the source of self-efficacy to which it is most closely aligned.

Feedback played a vital role in shaping behavior and self-efficacy specific to career applications. Describing the role of feedback in professional settings, Bandura noted, "a common problem in using one's knowledge to achieve skilled performance is that people do not fully observe their own behavior" (1987, p. 443). In SCT, feedback is a mediator that allows professionals to adjust their behavior in the complex social environment of a modern workplace. This underscores the reciprocal relationship between feedback and self-reflection by allowing feedback to fuel advanced reflection by expanding perspective.

I identified "critical feedback" as a subcategory within the theme of seeking and valuing feedback. Critical feedback is characterized by some level of correction or a suggested change in the behavior of the teacher receiving the feedback. Bandura (1986) identified human agency as a means of proactively exercising forethought in our lives. Seeking and valuing feedback is a proactive strategy for growth. For example, Kelly described the value of a colleague's regular feedback: "She knows me as a person. She knows my strengths; she knows my weaknesses.

She's not afraid to point out those things, and coach me through some of the areas where I need growth." Kelly exercised her agency by reaching out for support through meaningful feedback.

Kelly also highlighted the concept of growth and valued critical feedback. She wanted to know how she could improve, not just what she was doing "right." Having a growth mindset is closely associated with self-efficacy (Dweck, 2007). Dweck described a growth mindset as one in which people believe hard work and deliberate effort can help them develop skills and abilities. Dweck's (2007) definition of a growth mindset is deeply rooted in human agency theory, as it emphasizes the power of the individual to learn and grow continually. Human agency (Bandura, 1977) similarly stresses the fact that people are not mere products of their environment; they can, in fact, influence their environment. Having a growth mindset opens one up to the benefits of feedback. In Kelly's example, it was clear that she wanted to become more effective, and she recognized gaining information about her performance from another's perspective could increase her effectiveness.

Bandura recognized the importance of critical feedback and its potential impact on self-efficacy. The term "performance feedback" (Karl, O'Leary-Kelly & Martocchio, 1993, p. 379) describes evaluative feedback about a specific accomplishment or goal. Bandura found performance feedback that highlighted effort and accomplishments had a positive impact on self-efficacy (1987). Bandura contrasted performance feedback with instructive feedback, which describes specific feedback intended to allow the recipient to adjust her behavior. Both performance feedback and instructive feedback provide theoretical context to the category I refer to as critical feedback. The process of perceiving feedback from a perspective that allows growth is called "framing" performance feedback; this framing of feedback allows the recipient of the feedback to maximize its potential positive impact on self-efficacy (Bandura, 1987, p. 101). For

example, Barbara expressed an affinity for critical feedback but explained that she had to go through a process of allowing herself to view the feedback as constructive. When she began teaching, she was afraid of feedback that would challenge her competence. She deliberately began seeking critical feedback as part of a strategy to develop a stronger growth mindset. Barbara described this process as a transformative cornerstone of her TSE development.

For some, the inclusion of hard, quantifiable data into the process increases the impact of the feedback. I have classified this as data-based feedback: feedback in which quantitative or visual representations of student learning results are the primary tool. By introducing data into the feedback cycle, a teacher is able to quantify their successes or their need for improvement. Data-based feedback can serve as the impetus for mastery experiences, one of Bandura's (1995) four sources of self-efficacy, by illustrating incremental successes that may otherwise have gone unnoticed. Bandura described mastery experiences as the most influential source of self-efficacy (1997). Data-based feedback activates the mastery experience source of self-efficacy by providing evidence of a teacher's progress toward mastery. Mastery experiences are the most direct of Bandura's four sources of self-efficacy (1977). Essentially, gaining self-efficacy through mastery experiences is akin to the adage "success breeds success." When an individual experiences success in a given task, their belief in their ability to replicate that task increases (Bandura, 1987).

Participants described using data to indicate progress and mastery of skills necessary to reach all students. Thomas described a progression he went through in utilizing data-based feedback as a way to improve student learning and indirectly increase his TSE. By engaging in school-wide professional learning experiences in which student learning data was brought to the forefront, Thomas began to critically evaluate his impact. He then decided the same sort of

strategy could prove beneficial for his students. Thomas implemented a system of student self-evaluation with an active reflection component. As his students increased their level of ownership of their own learning, he noticed measurable improvements in student outcomes. This success further impacted his TSE and spurred him on to engage in more data-based, innovative practices. Kelly described a similar pathway but focused more of her energy on gathering data-based feedback through frequent, short student surveys. Both of these practices allowed the teachers to perceive their own efforts through a mastery lens.

Howie and Bagnall (2013) identified three reflective frames of reference that allow for greater insight into the role of data-based feedback. These three frames—content, process, and premise reflection—are not mutually exclusive. The content frame emphasizes the veracity of the content; process reflection emphasizes the systems that created the data, and premise reflection focuses on the beliefs and assumptions underlying the content (Howie and Bagnall, 2013). These frames can operate in conjunction with one another while one of the frames takes a more predominant role. Both Thomas and Kelly commenced their reflection on content data but transitioned to process reflection (Howie & Bagnall, 2013).

The examples of Thomas and Kelly also illustrate the importance of high expectations in relation to mastery experiences. Experiencing mastery when the task is perceived to be demanding can positively influence the impact of TSE. However, if the necessary effort is too great, the effect on TSE can be negated (Morris, Usher, & Chen, 2016). Data-based feedback holds the inherent advantage of allowing for a reasoned understanding of the necessary effort to master the task at hand. When a teacher can see the quantifiable results of their efforts, they are more likely to believe they can replicate the positive outcome for their students.

The three themes I classified as "*habits of learning*," seeking and valuing feedback, self-reflection, and collaboration are closely related to one another. To fully take advantage of the power of feedback, one must reflect on that feedback. Both content and process reflection involves an element of data-based feedback, as both provide data on which one can reflect. Furthermore, when feedback shifts from monologue to dialogue, a collaborative relationship is naturally formed. The social, cultural, and professional background of a teacher will influence the feedback, reflection, and collaborative frame to which they will gravitate (Mezirow, 1996).

Participants in this study gravitated toward seeking feedback from a content frame of reference. The data they sought to provide feedback predominantly focused on visual or numerical representations of student learning results. Loretta, for example, shared a story of how English language arts proficiency data provided feedback about her effectiveness and led to changes in her practice. She included references to processes that supported the acquisition and analysis of this data, but she squarely focused her perception of the feedback on the content-specific proficiency data. Both critical and data-based feedback reside primarily in the cognitive domain. The next section examines encouraging feedback, which predominately resides in the affective domain.

I identified encouraging feedback as a contributor to TSE for five participants. Encouraging feedback is a social, emotional force that can help teachers overcome the emotional challenges that can erode self-efficacy. Two of Bandura's (1997) sources of self-efficacy are closely related to encouraging feedback: social persuasion and emotional and physiological states. Bandura described social persuasion as a means to strengthen the belief that one has related to their capabilities through verbal and nonverbal feedback (Bandura, 1986). It is worth noting that the concept of feedback is integral in the definition of social persuasion. The self-

efficacy source of emotional and physiological states relates to the somatic indicators of an individual's ability to accomplish a specific task (Bandura, 1986). In other words, when a teacher's brain and body enact responses that are pleasurable while successfully meeting the needs of a student in a challenging situation, that teacher is more likely to believe she will be able to accomplish that task again.

My analysis of the *habits of learning* themes strongly confirmed, and in some cases, extended the content in my literature review. For example, Bowles and Pearlman (2017) emphasized the role self-reflection plays in the development of self-efficacy. The central theme of self-reflection as a contributing factor to TSE was universal among the participants in my study. Furthermore, Bowles and Pearlman (2017) found that self-reflection aimed at increasing TSE could be developed and taught; this closely aligned with my findings related to collaborative support for self-reflection.

A cornerstone of the literature review was the evolution of literature regarding the four sources of self-efficacy, as defined by Bandura (1986). A number of researchers expanded on the understanding of context-specific applications of the four sources of self-efficacy specifically related to teachers (Cayirdag, 2016; Wyatt, 2016). Cayridag (2016), for example, found a strong correlation between internal locus of control and high creative TSE. Possessing a strong internal locus of control naturally promotes self-reflection, which deepens one's understanding of their own efficacy. An individual with a strong internal locus of control perceives his own efforts to be more impactful than outside influences (Cayridag, 2016). Moreover, one's internal locus of control promotes engagement in mastery experiences, which have been found to be the most potent source of self-efficacy (Bandura, 1986). Wyatt (2016) found that self-reflection was

extremely important in the development of TSE and subsequently created a model of measuring TSE with a strong focus on self-reflection.

Tschannen-Moran and Woolfolk-Hoy (2001) stressed the importance of feedback as a contributing factor to TSE. In fact, they focused over 20% of the items on their 2001 TSE scale on the use of feedback as a means to develop TSE. The scale also included specific questions regarding data-based feedback and critical feedback. Building on the work of Tschannen-Moran and Woolfolk-Hoy (2001), my analysis confirmed the importance of effective feedback from supervisors in the development of TSE. Fackler and Malmberg (2016) found that supervisors who provided specific strategy-focused instructional feedback to teachers aimed at reaching all students positively impacted TSE. The three forms of feedback discussed in this chapter (encouraging feedback, critical feedback, and data-based feedback) can all be accessed for TSE development. The applicability of these feedback forms is dependent on the context of the situation, including instructional focus or student circumstances. Bandura (1986) offered a very similar general suggestion regarding the importance of instructional feedback as a means to support the mastery experience source of self-efficacy. As I stated previously, feedback can move beyond a one-way exchange in which one participant offers while the other receives feedback. When feedback becomes two-way, it has evolved into collaboration.

Collaboration with Colleagues

This section explores the final *habit of learning* theme, collaboration, which addresses the question, with whom does a teacher develop TSE? For this analysis, I employed the SCT principle of reciprocal determinism (Bandura, 1977). The participants in this study offered a myriad of data describing the contributing factors to their TSE. Five themes emerged related to these contributing factors, and in my original analysis, I found myself analyzing these themes in

silos by separating and sorting data exclusively by individual themes, never methodically considering the interaction between the data. Through my theoretical analysis, however, I came to realize the data and themes do not operate in a vacuum.

One of the foundational tenets of Bandura's social cognitive theory is the triadic relationship among personal, behavioral, and environmental factors and their influence on human behavior (Bandura, 1997). From a general perspective, I applied this concept to my findings and analyzed the relationship between each of the five themes and the relevant influencing categories from SCT. I assigned each of the themes to the applicable element in Bandura's model of triadic reciprocity (See Figure 5.7). Although all of the themes could be more fully understood through the lens of triadic reciprocity, the theme of collaboration stands alone as a sort of binding agent that ties the other themes together. Collaboration co-occurred with other themes in 225 instances. In other words, 225 coded data points shared collaboration as a thematic element with another theme or category.

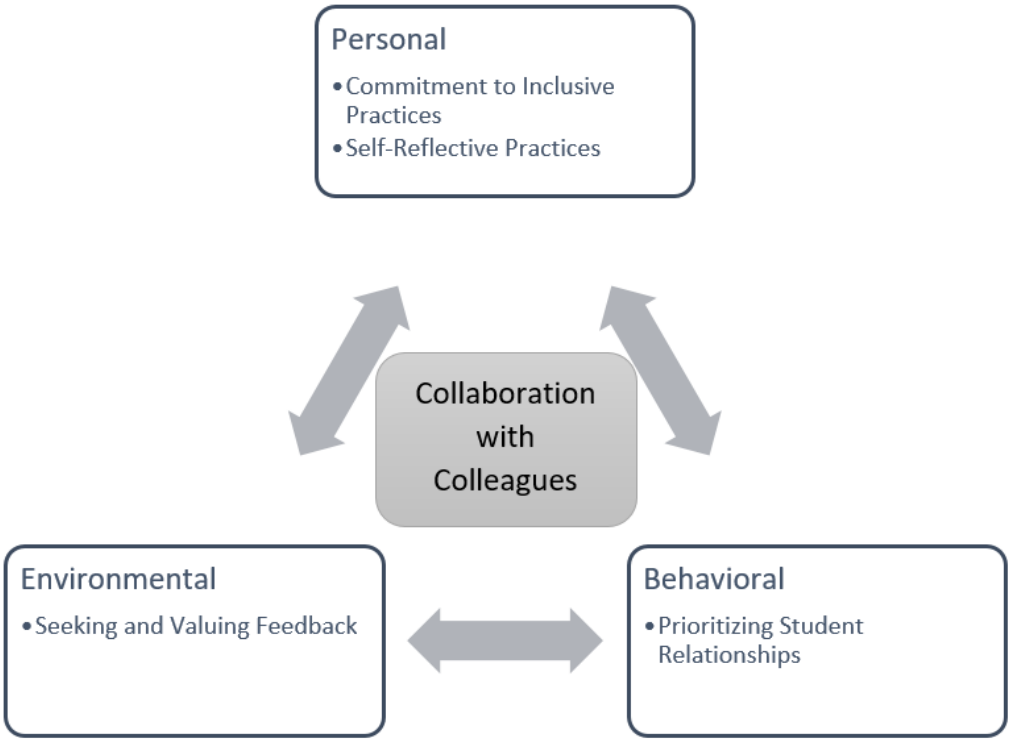


Figure 5.7. Emergent themes applied to Bandura's triadic reciprocity model (Bandura, 1978).

Participants identified contributing factors to their TSE that fell into each category of Bandura's triadic reciprocity model. The collaboration theme, however, can easily be aligned with all three categories of the triadic reciprocity model. SCT asserts that these categories should be considered through a reciprocal lens, meaning the contributing factors teachers identified "all operate as interacting determinants that influence one another bidirectionally" (Bandura, 1997, p. 6). For example, Joanie highlighted the role that her commitment to inclusion (a personal factor) played in her collaborative endeavors (an environmental factor). She described the ways she built a collaborative leadership structure that allowed all of the teachers on her team to focus on inclusive strategies and explained how this collaboration sharpened her focus on inclusion. The interaction of these two contributing factors exemplifies a teacher who is aware of the interplay

among various contributing factors, and who can move fluidly between the categories of the triadic reciprocity model.

Not all participants were as aware of the nexus among the factors they identified. For instance, James described 34 unique examples of contributing factors to his TSE. Of these 34 examples, he included personal, behavioral, and environmental factors. However, he did not, at any point, describe the interplay among these factors. SCT does not rely on the premise that one must cognitively fuse elements of the personal, behavioral, and environmental realms, but asserts these factors will inevitably interact and influence one another with or without metacognition. While metacognition regarding the connection among SCT elements is not necessary for TSE development, Bandura did suggest that being aware of these reciprocal processes can enhance efficacy (Bandura, 1997). The relationship between self-reflection and collaboration is another example of the triadic relationship among behavioral influences (Bandura, 1986). As discussed in the previous chapter, teachers who lacked self-observational skills (a personal factor) required support from colleagues (an environmental factor). These factors worked together reciprocally to generate a potential behavioral factor in the form of increased self-observation skills.

Bandura conceptualized the relationship between influencing factors on human behavior as reciprocal determinism. Reciprocal determinism contends that humans both influence their environment and, reciprocally, are influenced by their environment (Bandura, 1989). Bandura explained the concept of reciprocal determinism from a human agentic perspective by suggesting that people are continually involved in the process of development that can be hindered or advanced through self-efficacy. Participants in my study spoke of the active agentic role they assumed as they strove to meet the needs of all of their students. For example, Dawn described how her autonomy in the classroom allowed her to develop an understanding of her skills. She

explained how she was able to reflect on her impact and adjust her instruction, thus fostering her TSE. Participants did not always comment on the role of human agency from a positive perspective. For instance, Barbara described the role agency played in her TSE development by criticizing the lack of meaningful feedback she had received from supervisors. This perceived lack of collaborative support prompted Barbara to take her professional learning into her own hands, thus increasing her TSE.

My analysis of the collaboration theme confirmed the general findings on collective efficacy in the literature review. Bandura (1986) explored the concept of collective efficacy as an extension of his own seminal study of self-efficacy. Donohoo (2017) highlighted the importance of collective efficacy for achieving student outcomes; this assertion has been supported in a number of studies and a large-scale meta-analysis (Hattie, 2012). My analysis found that collaboration not only served as a unique source of TSE, but it was also a contributing factor strengthening the other themes I had identified. For example, inclusive practices could be enhanced as a TSE contributor by allowing for a collaborative collation aimed at implementing system-wide inclusive initiatives. Collective efficacy is much more than the sum total of the efficacy of individual teachers; collective efficacy is cultural and needs to be cultivated and supported (Donohoo, 2017). Calik, Sezgin, Kavgaci, and Kilinc (2012) also found collective-efficacy not only was more predictive of strong student outcomes than individual TSE, but collective-efficacy also fostered TSE. I found that student-focused collaboration was strongest when it was woven into the cultural fabric of the school and not simply the focus of a few individual teachers. For instance, Kelly highlighted four individuals and three building-based teams that not only impacted her TSE but also contributed to the collective efficacy of her school team. My analysis was strongly aligned with the content of my literature review on this topic.

Focus on Students Themes

The previous section analyzed the *habits of learning* themes that stem from cognitive practices that support TSE. Those processes define the "how" of the TSE development process. This section analyzes the "*focus on students*" pair of themes (prioritizing student relationships and a commitment to inclusive practices), which define the "what" and "why" of the TSE development process. Mezirow's (1996) transformative learning theory (TLT), specifically the ten-phase process of transformative learning and the concept of reflective frames, underpin my analysis of the "*focus on students*" themes.

Mezirow's TLT is grounded firmly in SCT (see Figure 5.5 and 5.6). The ten-phase process Mezirow delineated includes all three of the major influences on learning as defined by Bandura; social, cognitive, and behavioral (1986). For example, Mezirow's (1999) concepts of the disorienting dilemma and provisional trying of roles are often social in nature, the concepts of self-examination and critical assessment are cognitive practices, and Mezirow's exploration and planning a course of action phases are predominately behavioral. TLT also borrows from the human agency aspects of SCT as it describes the role the individual plays in transforming society and personal frames of reference (Taylor, 2008). Although this analysis primarily uses TLT to examine the "*focus on students*" themes, it also draws on elements of SCT, which shares a theoretical basis with TLT. Transformative learning theory holds that transformative learning results in empowerment (Mezirow, 1991). Mezirow asserted that empowerment includes "a more potent and efficacious sense of self [and] more critical understanding of social . . . relations" (1991, Kindle location 2361). The link between self-efficacy and TLT makes TLT an appropriate theoretical perspective from which to analyze TSE.

Commitment to Inclusive Practices

Participants in this study consistently identified a commitment to inclusive practices as a contributing factor to their TSE. Many participants felt that inclusion was, as one educator said, "the reason I became a teacher." I conducted this analysis of the inclusive practices theme using the shared elements among TLT and SCT, including human agency, emotional learning, social learning**,** and identification (see Figure 5.2).

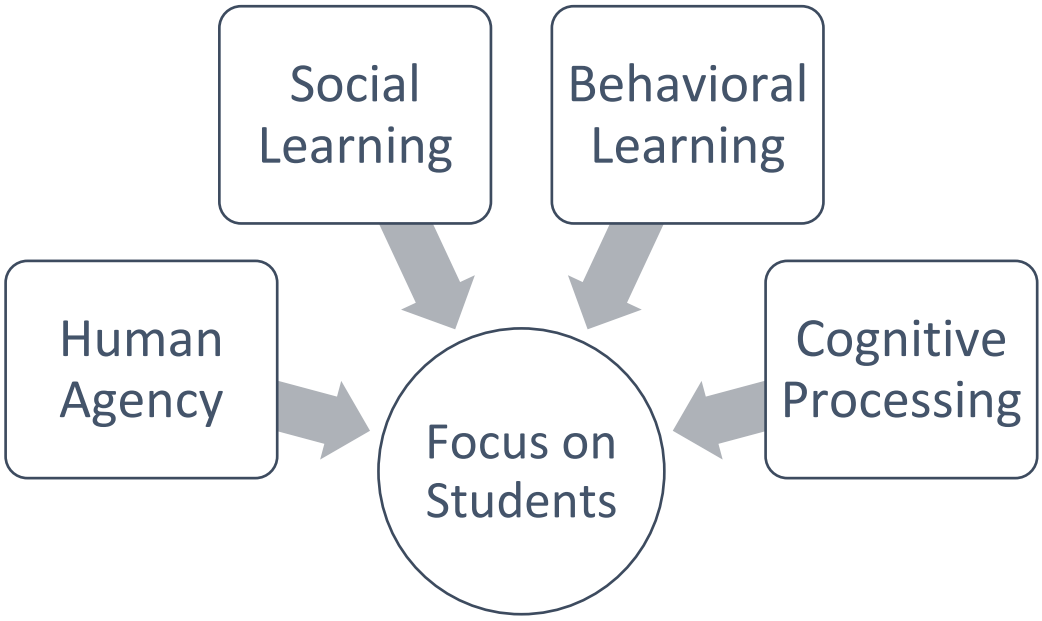


Figure 5.5. Four common elements of SCT and TLT which relate to the focus on student themes.

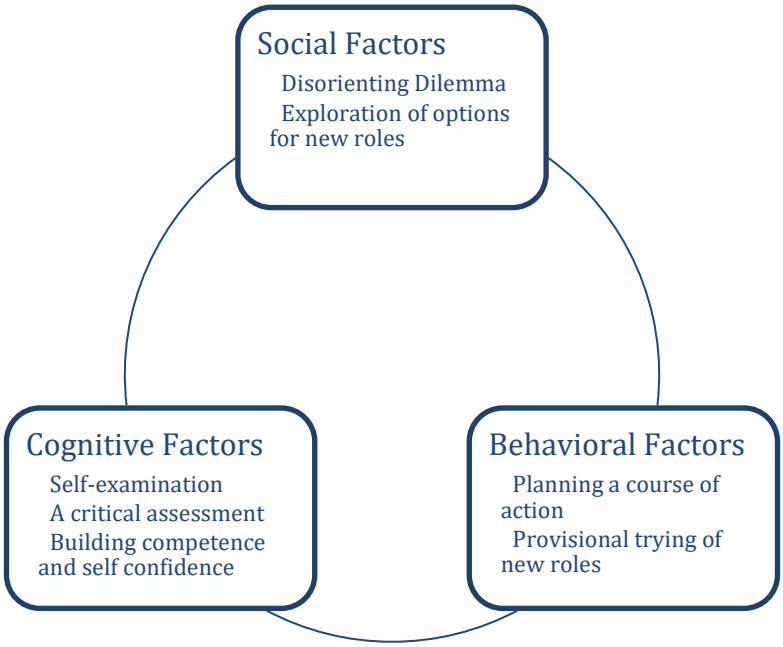


Figure 5.6. Common elements between SCT (Bandura, 1986) and the transformative learning phases (Mezirow, 1997).

Sixteen of the 19 participants in my study cited a dedication and commitment to inclusive practices as a contributing factor to their TSE. Interestingly, many participants' discussions of commitment to inclusive practices included the concept of empowerment. Often, teachers first described their efforts to empower an underrepresented or marginalized student with whom they worked and then transitioned into a discussion of the self-empowerment they experienced when they recognized the impact they had on the student. For example, Robert described a strategy he developed while working with a student he described as stubborn. The student refused to engage in the classroom activities and learning experiences Robert had planned. Not only that, Robert explained, but the student would simply stare at Robert with what he described as a blank stare. Robert told me that earlier in his career, he likely would have been concerned with the student but would not have strategically tried to improve the situation. In this case, however, Robert worked with the school guidance counselor to develop a specific intervention to teach this

student self-advocacy skills. The student's engagement improved, and equally importantly, Robert felt empowered and was able to apply this strategy and subsequent similar scenarios.

Human agency describes the power individuals have to affect change in their lives through the freedom of choice (Bandura, 1995). In SCT, self-efficacy is understood to impact human agency. Because human agency mediates decision making, high self-efficacy can positively impact a person's agentic capacity to make choices that lead to positive outcomes. In the previous example, Robert exercised his agency in making choices specifically aimed at meeting the needs of all of his students. This generative process positively impacted Robert TSE and improved his agency. Bandura explained that human agency allows "people to motivate and guide their actions through proactive control by setting themselves valued goals" (1991, p. 158). Teachers like Robert, who engage in agentic professional learning aimed at inclusive teaching, ultimately impact their own self-efficacy and potentially the self-efficacy of the students with whom they work.

Teachers who place a high priority on inclusion approach their profession as agents of change (Pantic & Florian, 2015). John Paul, for example, noticed changes in the intensity and frequency of mental health issues with his students. Instead of waiting for external systems or supports to address these situations, John Paul realized teachers were the "go-to resource" for students with mental health needs. He made it a point to learn more about what he could do as a teacher to help reduce stress and anxiety with his students while maintaining rigorous expectations. When he found some success in his classroom, he began advocating for his school to improve its proactive measures to address mental health concerns among students. John Paul served as an agent of change or his students and experienced the unintended benefit of increased TSE.

When John Paul realized that the mental health needs of his students were not going to be miraculously addressed by someone else, he experienced what Mezirow called "a disorienting dilemma" (2018, Kindle Location 68)—the first of the ten phases. John Paul then went through the remainder of the ten-phase process. Fully engaging in Mezirow's ten-phase process can result in transformative learning. When an individual experiences transformative learning, her perspectives, and frames of reference are permanently altered (Kitchenham, 2010). The very nature of transformative learning is directly aligned with the theme of commitment to inclusive practices. Mezirow described transformative learning as more inclusive, discriminating, [and] self-reflective than traditional learning (Mezirow, 1997, p.4). TLT is an inherently agentic theory in that the result is an increased capacity for an individual to enact change (Mezirow, 2018). John Paul went through a transformative learning experience that has permanently shifted his perspective related to the mental health of his students.

Margaret described her focus on inclusion as a way to "give hope" to her students. Margaret was becoming increasingly concerned over her students' sense of hopelessness, which she perceived at an alarming rate. The concept of giving hope was central to Margaret's identity as a teacher; she wanted every student, regardless of any challenges they may have faced, to feel more hopeful when they left her class. She took an exceptionally agentic approach to her craft as she empowered herself to create hopeful and inclusive learning environments (Mezirow, 2018). Margaret found students who were systemically excluded from the experiences of their peers were most susceptible to hopelessness. Margaret shifted her focus from advocating for additional, out-of-class services for students to advocating for her students to remain in her class. She knew the students would still require support, but insisted that that support be offered in her classroom as much as possible.

To maximize inclusivity in a school, teachers need to be aware of the concept of privilege and exclusion and exercise their agency (Pantic & Florian, 2015). Privilege and exclusion are forces that work against inclusive goals. For example, Kevin spoke about the way he resisted pressure from fellow teachers who were adopting an exclusive lens. Several teachers scanned Kevin's class roster a few weeks before the school year began and "warned" him about a few students who were going to really give him "a hard time." These warnings made Kevin feel uneasy; while they did not align with his inclusive approach, he did not feel he had enough experience to definitively rebuff the warnings. This experience served as Kevin's disorienting dilemma (Kitchenham, 2008).

Kevin knew that one of the students about whom he was being warned was identified with an emotional and behavioral disability. Kevin responded to his colleagues by stating positively that he was looking forward to the challenge and that he would never give up on any student. This attitude reinforced Kevin's agency and efficacy. He refused to let outside circumstances or preconceived notions erode his influence. Bandura posited that human agency fuels motivation for people "through proactive control by setting themselves valued goals that create a state of disequilibrium and then mobilizing their abilities and effort … to reach the goals" (Bandura, 1991 p. 260). Kevin's goal-setting process and its alignment to his beliefs is also an integral part of TLT. Kevin critically reflected on his own cognitive paradigm about inclusion and processed through the remaining nine phases of the TLT process, including phase eight, the "provisional trying of roles" (Kitchenham, 2010, p.105). In this phase, the individual applies their newfound knowledge to new roles. In this case, Kevin assumed the role of teacher leader from which he advocated for inclusion.

Teachers can exercise agency both individually and collectively; to address both types of agency, I identified teacher-initiated inclusion and participation in system-wide inclusive practices as two subcategories in the "commitment to inclusive practices" theme. The participants who participated in system-wide inclusive practices were often collectively engaged. Debra, for instance, discussed the impact co-teaching had on her TSE. She explained that working with her teaching partner to meet the needs of all students allowed for reciprocal support that positively impacted TSE for both teachers. Bandura suggested that collective agency is a natural extension of personal agency since "many of the outcomes they seek are achievable only through independent efforts" (2000, p. 75). When teachers engage in inclusive practices, there is an inevitable social component with students and often a social component among professionals. Depending on the organization of the inclusive practice, general educators, special educators, interventionists, and various leaders could all be working with one another with the common goal of meeting the needs of all of their shared students.

The concept of collective agency is closely related to the social learning tenet of SCT (Bandura, 1986). SCT stresses that human learning is not solely reliant on behavioral mechanisms. Through the increased social interaction teachers experience in inclusive instructional models, they can reap the ancillary benefits of social learning. Social learning surrounding the topic of inclusive education has allowed teachers to "unmask" assumptions and beliefs that had not previously been critically examined (Oswald, 2014, p. 2).

Identification is another important construct in SCT, and it differs from social learning in that an individual can adopt more beliefs and values from a social model, not merely behaviors. In other words, identification affects who we are, not just what we do (McLeod, 2016). Identification is the process of adopting behaviors, values, and beliefs of an esteemed social

model (Bandura & Huston, 1961). Identification is a far more transformative process than simple social learning as its impact goes beyond learning and applying behaviors to a more profound, permanent transformation in perspective (McLeod, 2016). For example, Thomas described a transformation in his perspective that increased his TSE that was sparked by a principal whose philosophy was undoubtedly inclusive even though the school was not deliberately focused on inclusive practices. Thomas adopted this principal's philosophy, which later guided his own inclusive practices in the classroom. Thomas described himself as a "growth model guy": he applied his growth mindset to assessment practices, and this allowed him to more inclusively meet the needs of all students. For example, Thomas was a pioneer in his school with the use of individual student goal setting based on formative assessment data. He empowered students by focusing on their growth, not an arbitrary measure of proficiency. Thomas set these individual growth goals for all students regardless of any support or service a student may receive. Thomas, along with the majority of the study's participants, not only focused on inclusive practices for their students but found ways to leverage student relationships to maximize their impact and grow his TSE.

Prioritization of Student Relationships

Teachers with high TSE prioritize building authentic relationships with their students. Participants in this study identified the prioritization of student relationships as a contributing factor to their TSE over 275 times during the interview process. The majority of the participants discussed their natural proclivity for building student relationships. The TLT framework of the ten-phase transformative learning process, along with the SCT concepts of self-efficacy, emotional state source, human agency, and identification, help explain teachers' motivations to focus on student relationships (Bandura, 1986; Mezirow, 2012).

The participants in this study consistently considered the affective aspects of teaching as they described their development of TSE. Behaviors that include emotional elements, including teaching behaviors, reside in the affective domain (Zhang & Lu, 2009). Bandura found that emotional states can serve as a mediator of self-efficacy. Teachers and others can "use their affective reactions rather than recalled information to form their evaluations" (Bandura, 1997, p. 113). By building positive relationships with students, teachers received positive emotional feedback, which, in turn, positively impacted their self-efficacy. For instance, Joanie spoke of a strong emotional bond she had with her students:

> Every student in my class who I have this year, I have a love for each one of them individually. I want to get to know who they are. I want to get to know who they are as a person. And I want them to know who I am too.

Joanie explained that the professional love she holds for her students is what drives her to work tirelessly to meet their needs. The concept of professional love is especially crucial in Joanie's setting of early childhood education, where caregivers often struggle with the public perceptions about the emotional attachment that is so crucial in their work (Page, 2018). When an emotional attachment is embraced, the emotional source of self-efficacy is activated (Bandura, 1997). Emotional states can also operate reciprocally: when a teacher focuses on student relationships, she can build student efficacy while also sensing the student's emotional well-being, which in turn supports her own TSE (Bandura, 1986).

Sometimes, building student relationships can activate a transformative learning process. For example, Mary, who served as an instructional coach, reflected on the transformative impact that building student relationships had on her TSE. She realized that students she had worked with in the past were resistant to accepting support because it called attention to their struggles.

Sometimes that resistance came in the form of aloofness and standoffishness from the student. Mary was distressed by these student reactions and took them personally, but initially, she could not work through the barriers to build authentic relationships. This lack of personal connection with some of her students was Mary's disorienting dilemma (Mezirow, 2018).

Mary's TSE deteriorated because she began doubting her ability to reach these emotionally resistant students. She processed through the next two phases of Mezirow's ten-phase process as she examined her own sense of guilt and shame for feeling like she was giving up on students (Kitchenham, 2008). As she became more adept at building student relationships, however, Mary was able to break through students' resistance, ultimately positively impacting her TSE and her students' self-efficacy. She critically reflected and developed a plan of action. The reintegration of her new frame of reference came to fruition when she began coaching other teachers on authentic ways to build student relationships with students who presented as emotionally resistant (Knight, 2007; Mezirow, 2018).

Thomas also worked as an agent of change by fostering meaningful student relationships. Human agency, a significant component of SCT, is exercised when an individual acts on his environment to enact change. In a study of human agency, Pantic and Florian highlighted the building of teacher-student relationships as a means to exercise human agency while implementing inclusive practices (2015). Thomas described an elaborate observational process that he used to ensure he was promoting a positive classroom culture and investing in meaningful relationships with each student:

> I look at body language, and I look at kids' eyes and how they are carrying themselves in the class, and a lot of non-verbals all the time. And then you just listen to their conversations, side conversations they're having in work time and this and that, you

> watch them out there, you watch whatever the environment tells you really get a good idea of where kids are at and what's going on. They carry it all on their sleeves, especially middle school kids. I need to make sure I have strong relationships with all kids. Everything I want for my class depends on it.

Teachers like Thomas require the professional latitude to implement what they know works for their students. The type of autonomy to build classroom community exhibited by Thomas fell under my theme of prioritizing student relationships. From a TLT perspective, autonomous thinking refers to the ability to think critically and independently as "a responsible agent" in order to make impactful decisions (Mezirow, 1997, p. 8).

Lacey offered a detailed description of how she came to value her ability to alter her teaching environment and practices to build strong relationships. She relied on her Responsive Classroom training to develop a strong sense of community. She strongly valued principals and district leaders who recognized the importance of skilled teachers having the flexibility to make decisions on behalf of their students. This level of autonomy is part of the final five stages of the transformative learning process, which include building confidence in new ways, planning a course of action, knowledge to implement plans, experimenting with new roles, and finally, reintegration (Mezirow, 2018). Once teachers realize the impact of building strong relationships with their students, they become more confident and implement plans. If they can work through the entire ten-phase process, their frame of reference related to student relationships will have been transformed (Kitchenham, 2010). This is exactly what happened for Lacey.

While interviewing participants for this study, I focused on the factors that teachers attributed to their sense of TSE. Through the iterative interview process, several participants spoke of teachers from their past who inspired them to pursue a career as an educator. Seven

participants discussed former teachers in relation to their own TSE. In all seven examples, the participants spoke of the ability of their former teacher to build strong relationships. For example, Carol reflected on the impact her elementary teacher had on her life. She said it was "nothing fancy. We just all knew she really cared." Carol identified with her former teacher and said she strived to treat her students the way her former teacher treated her. Identification can happen over a long period of time, as in Carol's case, or more immediately. For example, as Kevin worked with his special educator partner to learn strategies for building relationships with struggling students, he came to identify with his partner. Kevin did more than mimic behaviors; he adopted a new set of beliefs. He identified so closely with the beliefs and perspectives of his teaching partner; he adopted some of those beliefs along with discrete behaviors. Those beliefs have become defining elements of Kevin's teaching identity.

For the most part, my analysis of the "*focus on students*" themes confirmed the results of previous studies on TSE. Social justice issues related to equitable access to high-quality education were a prominent theme in teachers' discussions about how they focused on their students. These discussions confirmed a common element in the literature. The relationship between inclusive practices and TSE was a prominent feature throughout the literature review. Gibson and Dembo (1984) found that higher levels of TSE correlated with equitable feedback regardless of student characteristics, including previous achievement and demographic background. Urton, Wilbert, and Hennemann (2014) found, dependent on support from principals, inclusive practices can enhance TSE. My analysis of the importance of the commitment to inclusive practices as a contributing factor to TSE extends Gibson and Dembo's (1984) conclusion, as the participants in this study explicitly identified a commitment to

inclusive practices as a contributor to their TSE, thus shifting the relationship from correlative to causal.

In my analysis, I examined the impact of building strong student relationships on TSE. There were contradictory findings in the literature related to the correlation between student relationships and TSE. When student relationships were examined through the lens of engagement, researchers found a correlation to TSE (Zee & Koomen, 2016). However, another study showed no correlation between teacher-student relationships and TSE (de Jong et al., 2014). De Jong's findings suggested if a teacher's focus is too strongly on relationships, rigor and academic expectation can suffer. My findings supported the positive impact of student relationships on TSE. In this way, my analysis offers an extension to the related literature designed to identify empirical correlation.

Summary

In summary, SCT and TLT served as a theoretical basis from which I was able to analyze my findings. In my analysis, I found the five themes operated interdependently with one another. Although participants identified factors contributing to their TSE in all five themes, they also identified connections among the themes. This interdependence is also supported by both theories. SCT and TLT both rely on the interdependence of their individual elements. TLT, for example, is heavily dependent on the ten phase process (Mezirow, 2012). The steps in the process do not exist in isolation. Instead, they support one another in a cumulative process that results in transformation (Kitchenham, 2010).

SCT also is based on the interdependence described in the triadic reciprocity model (Bandura, 1996). Although this triadic relationship serves as a unifying concept for all five themes, not all themes are equally applicable to my sub-research questions. I aimed my research

sub-questions on differences in the contributing and limiting factors for TSE across career stages. I addressed findings specific to career stage in the next chapter.

CHAPTER 6: FINDINGS BY CAREER STAGE

At the time of this study, Dawn had been a high school English teacher for nearly 30 years in a midsize high school in Minnesota. Dawn's first two years of teaching presented challenges that eroded the high level of TSE she has as an idealistic pre-service teacher. However, she quickly found strategies that fostered the continual development of her TSE. Dawn was a naturally reflective teacher. She followed the advice she offered to her students and employed journaling as a self-reflective strategy. As Dawn progressed through her career, she learned to enhance her self-reflective habits by shifting her focus from *what* she did as a teacher to *how* her students responded. She also learned how to reflect during the teaching process and make adjustments that allowed students to accelerate their learning. This shorter reflection cycle also helped Dawn realize the positive impact her actions had on her students.

When Dawn was a relatively new teacher, she sought affirmation and encouragement from her supervisors and veteran teachers. She fondly remembered the support in the form of frequent encouraging feedback she received from a principal early in her career. As Dawn professionally matured, she began relying more heavily on collaborative peer feedback. Dawn intentionally associated with positive peers who enjoyed reflecting on their own teaching practices and providing collegial feedback. Dawn's predisposition for seeking feedback has most recently manifested itself through feedback directly from students. Dawn developed the courage to be vulnerable and ask the students what they need.

Over the years, Dawn's reflection and quest for professional growth have helped her develop a strongly student-focused philosophy based on inclusion and strong relationships with students. As a teacher early in her career, Dawn focused on making sure her students felt

comfortable. She was always a strong advocate for students, but this advocacy presented itself in the form of friendship. Dawn's natural ability to build strong relationships with students fed her self-efficacy and helped her develop a reputation as an excellent teacher. When it came to student relationships, Dawn again allowed herself to be vulnerable and leveraged strong relationships to challenge students and build their self-efficacy.

Although Dawn's journey as a professional educator was her own unique lived experience, many of the patterns she described held true for the majority of the participants in my study at each career stage. In all five themes related to TSE development, there was a general shift from a more teacher-centric approach early in a teacher's career to a more student-centric approach during more advanced career stages. Interestingly, the five themes of self-reflective practices—seeking and valuing feedback, commitment to inclusive practices, prioritizing student relationships, and collaboration—remained consistent across all career stages (see Figure 6.1). However, as in the case of Dawn, there were significant shifts within each theme.

In this chapter, I explored the findings related to the study's sub-question: How does the process of developing and sustaining TSE differ depending on career stage? I described the ways my findings differed depending on the career stage of the participants by exploring each of the sub-categories associated with each theme. The nature of my qualitative study required a more thorough analysis of participants' comments on the contributing factors to their TSE than a simple count of occurrences related to each theme or category. My participants with extensive experience regularly reflected on contributors to their TSE that had shifted throughout their years of experience. For this reason, I based my findings on the career stage referenced by my participants, not necessarily the current career stage of the participant. Both the qualitative and quantitative data I collected generated findings presented in this chapter.

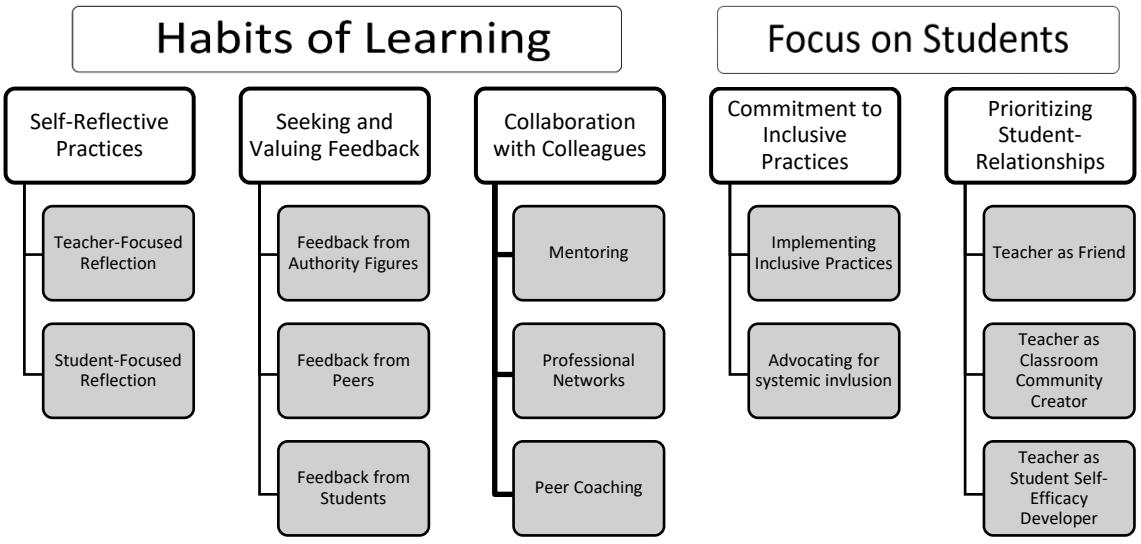


Figure 6.1. Themes and categories for TSE development by career stage and experience.

Self-Reflective Practices

Self-reflective practices emerged as a dominant theme in my study. For the purpose of this study, I defined self-reflection as practices that allow teachers and other professionals to expand their awareness of their knowledge base and to learn from their own experience (Schön, 1983). Both the quantitative and the qualitative elements of my study support the premise that self-reflective practices support the development of TSE. As described in chapter 4, I classified the self-reflective practices theme along with the next themes of seeking and valuing feedback, and collaboration with colleagues as "*habits of learning*" themes. I used the *habits of learning* moniker to describe the ways high TSE teachers engage in learning through personal cognition (reflection) and social interaction (feedback and collaboration).

Figure 6.2. The perceived importance of self-reflection on TSE development by teaching experience bands.

I identified two subcategories of the self-reflective practices theme — one-way reflection and cyclical reflection. My findings suggested a shift to more cyclical reflection as high TSE teachers gain experience. The quantitative data collected via a survey completed by 120 teachers throughout Wisconsin suggested little variability within each theme based on the experience of the teachers. Respondents to the survey indicated the importance of a variety of factors that could enhance their TSE. They used a 9-point scale with 1 meaning "no impact" and 9 meaning an "extremely strong impact." For the theme of self-reflective practices, the average for each experience band for self-reflective practices ranged from 5.6 to 6.9 on the 9-point scale (see Figure 6.2). As the data demonstrated, there was a modest upward trend in the perceived importance of self-reflection to the development of TSE as a teacher progressed through her career experience bands. However, there was more pronounced variability related to individual questions for each theme when discussing various subcategories of each theme. For the first

theme of self-reflective practices, these subcategories included reflection on process and student-focused reflection.

Teacher-Focused Reflection

I defined "teacher-focused reflection" as teachers thinking about past or current adult practices and processes with a focus on improving said processes. This sort of reflection often operated in a single direction. Reflection on process focuses on a singular experience. An event occurs, and the teacher actively reflects on the event resulting in new understanding or new action. Once the teacher gains the new knowledge or takes further action as a result of the reflection, the reflective process concludes. The effects of reflection on process ranged from minor adjustments to instruction to more significant shifts in perspective or approach.

My findings suggested that teacher-focused reflection is a more dominant contributor to TSE early in a teacher's career. Five of the six participants in their first 10 years in the teaching profession identified teacher-focused reflection as a contributing factor to their TSE. Three of the six participants were in their first 5 years of teaching, while two had between 6 and 10 years of experience. Loretta, for instance, described spending time each day thinking about what she

could do to improve her teaching. In her description of this reflective process, she included reflecting on elements of her lesson plan, assessment strategies, and classroom management structures such as grouping students. She did not, however, describe a reflective process focused on the ways students responded to her instruction.

Kelly highlighted the importance of reflection on her TSE over 30 times during our interview. She recognized herself as a naturally reflective person. She described her views on her reflective practices with a strong emphasis on whole-group teacher practices:

> Back to reflection, I think that's where the growth happens and where those aspirations keep coming from. Now that we've hit this benchmark, where do I want to go next? That's constantly on my mind, every day, every quarter, every semester, every year. Now that we've done this, where do I want to go next? Where do I want us to go next? Working with my curriculum partner is great because she's always on board for whatever. Okay, now that we've done this lab, now let's expand it, now let's do more. I think a lot of that is the product of reflection.

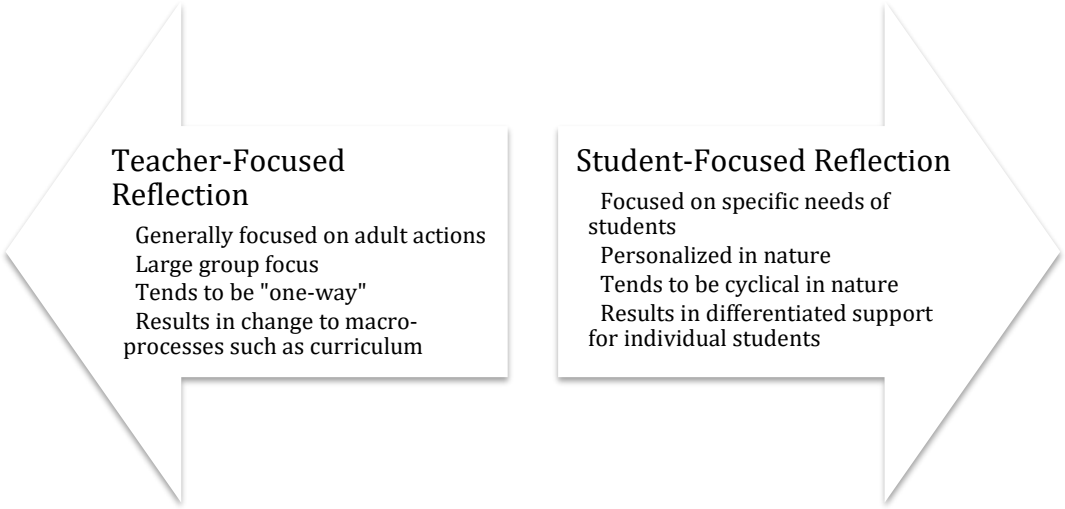
Kelly referenced several elements that are integral to the concept of teacher-focused reflection. Kelly recognized the transformative power of reflection on TSE development. The "aspiration" Kelly referred to was her firm belief that she could support all of her students. Kelly also referenced results, but the results she spoke of were clearly those of the entire class. She spoke of the benchmark "we've hit." The adjustments that resulted from reflection were curricular in nature. She reflected with her curriculum partner to decide what to do next for the whole class or all of the students in a particular course. Kelly also referenced the importance of frequency of this instilled habit of reflection when she discussed engaging in this teacher-focused reflection "every day, every semester, every year."

My findings also suggested that teacher-focused collaboration was not without a student perspective. The student perspective was, however subordinate to the focus on teachers. Kevin, who had been teaching for seven years at the time of his interview, described engaging in teacher-focused reflection. Kevin demonstrated his teacher-focused reflection when working with his teaching colleagues. Although Kevin would ask questions of himself and his colleagues about "how the lesson went," his primary focus remained consistently focused on his own practices and only considered the student perspective vaguely and generally. Kevin's example illustrated a continuum that exists between reflection entirely focused on teacher practice and very personalized reflection on students. In the next section, I explored the findings related to reflection on students, which is a more personalized and holistic approach to reflection that focuses on the needs of individual students.

Student-Focused Reflection

As described in the previous section, my findings indicated reflection that supports TSE exists on a continuum. On one side of the continuum was teacher-focused reflection. On the other side of the continuum is student-focused reflection (see Figure 6.3). Teachers engaged in student-focused reflections took a cyclical approach to their reflection. It was a generative process in which a teacher engaged in an ongoing process of continuous improvement. This cyclical reflection process commences with a precipitating event that ignites a curiosity-based reflection. Then the teachers engaged in some adjustment to their approach for a student or group of students followed by further refinement informed by reflection. This sort of reflection tended to yield more transformative changes due to its continuous nature and the fact that improvement in thought and action always squarely focused on students.

Seven of the ten participants with more than eleven years of experience identified student-focused reflection as a contributing factor to their TSE. I further identified three defining elements of student-focused reflection from the data I collected from more experienced teachers.



These elements include a focus on the specific needs of students, cyclical processing, and resulting differentiated support for individual students.

Figure 6.3. Continuum of self-reflection from professional practice reflection to student-focused reflection.

The first characteristic of student-focused reflection was a high degree of specificity; the reflection focused on a small group of students or an individual student. Joanie identified a transformation in her reflective practices after about eight years in the profession related to this specificity. This transformation occurred in stages and resulted in Joanie adopting a more student-focused approach to her reflection. Joanie stated that her reflection began as a mechanical process, but after about four years, she began "connecting the dots." She started reflecting on information that came from multiple sources, including parents, colleagues, and students. After seven or eight years, Joanie found herself able to more precisely meet the needs

of her students based on her reflection. She also added that as her reflection shifted to a more student-focused approach, the impact on her TSE became more direct and profound. She described feeling that she could more quickly adapt to the needs of the students because of her own reflective capacities.

Another defining characteristic of student-focused reflection was the personalized nature of the focus. Teachers who personalized their student-focused self-reflection relied on information beyond necessary academic measures and focused on the root causes of the challenges their students faced. John Paul described the way shifts in student population allowed him to rely on his reflective experiences to personalize his support for students:

> I almost call it now two different student populations. We seemingly are getting a higher number every year of special needs kids coming that need attention . . . But that group, that's one of those groups that's tough, and I guess I would rely on experience to try to guide me through those. If I know there's a particular student who's had some trauma, or going through some issues at home that I'm not equipped to deal with, I know it, I've learned over the last five, ten years that I need to get to know them more deeply before I assume I can use my formative assessments and sense of humor to get to them. I need to reflect back on everything I have learned to make sure my support is meaningful.

Interestingly, this description from John Paul came immediately after he described his “black and white” approach to classroom management. His student-focused self-reflective skills, however, allowed him to suspend his “black and white” plans and adopt a more personalized and emotionally-resonant reflective stance.

Student-focused self-reflection also tended to be more cyclical in nature. Because the dilemmas teachers addressed through student-focused self-reflection tended to be complex, one-

way reflection with a finite, short-term outcome was not sufficient. Instead, teachers engaged in a reflective loop where they were constantly assimilating new information from the student, making adjustments, and repeating that cycle. For instance, Maria described how she adapted her understanding of the moniker "lifelong learner" to be more student-focused. She said she always thirsted for knowledge and learning, but early on in her career, she focused her learning on her professional practice. She would read countless professional books, journals, and online resources. Whenever there was a new initiative at the school in which she worked, she would enthusiastically volunteer to partake.

With additional experience, Maria learned to withhold some of her reflective capacity to focus on learning more about her students, not her practice. She described her student-focused reflective process is putting together a complicated jigsaw puzzle where she works on a section, pauses to contemplate next steps, and then works on the puzzle once again. This profoundly personal cyclical reflection can exact a toll on a committed teacher. Maria described this process as emotionally taxing and especially challenging at the end of the school year. Not only does cyclical student-focused reflection generate a robust personal bond among s teacher and her students, but it can also erode a sense of resolution because there is, as Maria said, "always more we can do."

The typical result of student-focused reflection is differentiated support structures for the academic, personal, and social-emotional needs of a high TSE teacher's students. Thomas likened the process to slowly, creating Individualized Educational Plans for over 100 middle school students each year. He described a mild frustration with the length of time required to truly reflect on the needs of all students and adjust his teaching approach accordingly. He learned to address students' academic needs programmatically as to not absorb too much of his reflective

capacity. Thomas created an elaborate formative assessment structure that allowed him to quickly reflect and make academic adjustments for small groups or individual students. Thomas understood that academic focus was only one aspect of the needs of his students and acknowledged that academics were not typically the aspect that, in his words, kept him up at night.

My findings suggested self-reflective practices are essential to the TSE development of teachers throughout their careers. However, the manifestation of these self-reflective practices tended to shift throughout a teacher's career from a focus on professional practices to a focus on individual students. Teachers demonstrate this focus on individual students through a personalized and cyclical reflective process, which allows for significantly differentiated outcomes for all students. Self-reflection does not occur in a cognitive vacuum. Information must feed reflection; often, that information comes in the form of feedback. In the next section, I explored the theme of seeking and valuing feedback and the shifts in this theme that occur throughout a teacher's career.

Seeking and Valuing Feedback

High TSE teachers who sought feedback craved information from outside sources to inform and refine their practice. Hattie and Yates defined feedback as "information allowing a learner to reduce the gap between what is evident currently and what could or should be the case" (2015, p. 2). While all participants described the value of feedback to their TSE, many of the patterns regarding feedback that emerged throughout my study varied depending on the teacher's career stage. My quantitative data suggested a very slight decrease in the perceived importance of feedback as a source for TSE, peaking at 6.2 in the first 5 years, a low-point of 5.5 for years 11-15, and a final value of 5.7 for the respondents with 21 or more years' experience

(see Figure 6.4). Again, there were more pronounced variances for the individual questions; these are explored in subsequent sections detailing my findings for each sub-category.

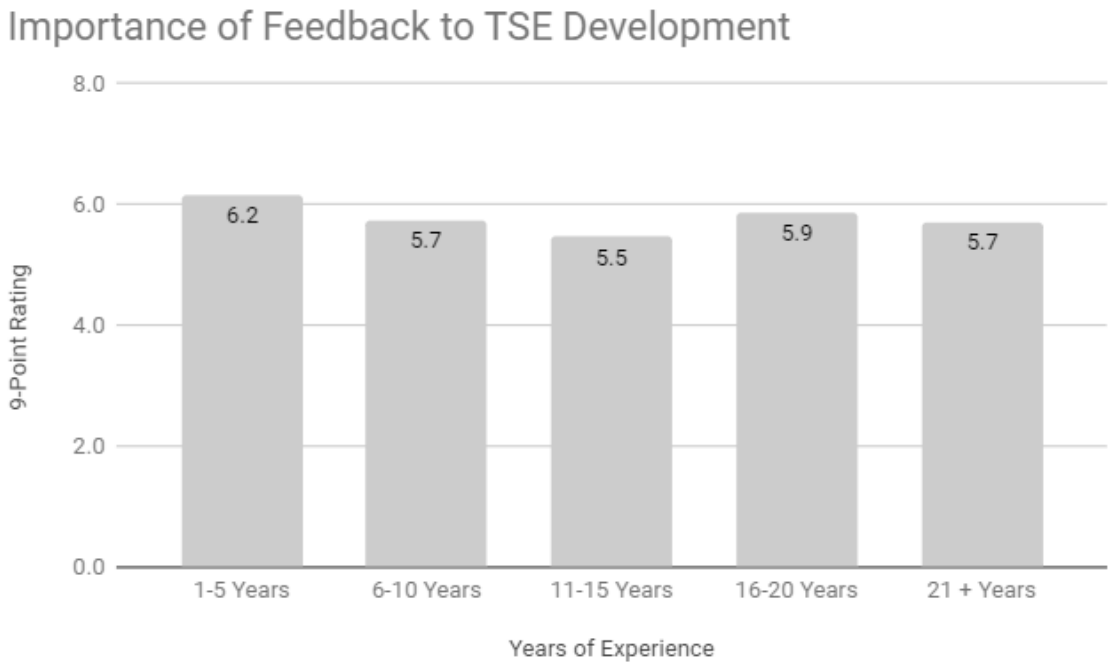


Figure 6.4. The perceived importance of feedback on TSE development across teaching experience band.

I identified three sub-categories for the seeking and valuing feedback theme based on differences based on the level of experience among the participants in my study. The three categories were feedback from authority figures, feedback from peers, and feedback from students. The following findings were based primarily on the qualitative data I collected through interviews and focus groups. I supplemented these findings with specific quantitative data points from my survey with 118 respondents. Generally speaking, there was a shift from an emphasis on feedback from authority figures to feedback from students as teachers progressed through their careers.

Feedback from Authority Figures

Feedback from authority figures came from multiple sources and in various forms. Its defining characteristic was that the teacher receiving the feedback viewed the deliverer of the feedback as someone who possesses power and, in some way, evaluated the effectiveness of the teacher. This feedback could come from a formal evaluator such as a principal or district administrator, mentor, coach, or parent who provides direct feedback to the teacher. It was essential to recognize that simply because this feedback emanated from an authority figure, the teacher sought out and valued such feedback and furthermore recognized the feedback as a source of TSE.

Six of the eight participants in their first 10 years of teaching identified feedback from authority figures as a contributor to their TSE. At the very onset of a teacher's career, feedback from authority figures could jump-start the TSE development process. Lindsay, a preservice teacher at the time of her interview, identified constructive feedback from her cooperating teacher as her primary source of TSE development. She found this feedback to be more impactful than any other potential TSE source. She astutely recognized that her lack of experience put her in a position to rely heavily on the experiences of others. She described her cooperating teacher as having perfect timing because he always knew when she needed encouragement or gentle redirection. Lindsay said she tended to “beat herself up,” thus eroding her TSE. The cooperating teacher recognized this tendency and started providing more frequent positive feedback. As I mentioned earlier, my findings suggest high TSE teachers seek out and value feedback, not simply absorb it. Lindsay said she perceived even constructive redirection as a very positive form of feedback.

Kevin described the paradox between valuing feedback from authority figures and being somewhat hesitant to seek out such feedback for fear that it might signify weakness. He described a yearning for direction in his first few years to make sure his perception of what was working was in alignment with his principal. Even throughout the formal evaluation process, including conferences after the principal observed Kevin's teaching, he found himself quickly agreeing with the feedback but not fully capitalizing on the opportunity to gain a meaningful perspective.

Teachers who significantly valued feedback from authority figures found themselves in situations where the usual channels for receiving such feedback may have been limited. Joanie significantly valued feedback from authority figures, but in her first teaching job, she did not have access to such feedback. Joanie taught in a very small private school with no direct evaluators other than a Board of Directors. Instead of settling for the lack of feedback available in her current setting, she sought out other authority figures to feed the need for directive feedback:

> So that's why when I mention my parents. They were huge for me during that transition. So they were kind of my support but they, I mean, how my parents have led just raising me and just my life, they're always there if you need them. But they always want to know, "Well, what do you think? What do you think you should do?" and "What should you try?" But then would support me if I was like, "I'm out of ideas. Just give me something today."

Joanie's sentiment exemplified how the majority of participants with ten or fewer years of experience felt about feedback from authority figures. If they did not receive the feedback through the pre-established channels, they sought it out to fill the need. A parallel pattern

emerged from my quantitative data that can help elucidate the path a teacher may take to obtain the feedback from authority figures they crave. Teachers in their first five years of experience rated the importance of feedback from an authority figure with an average score of 5.5 out of 9, with 9 being extremely important. This score climbed slightly for teachers with between 6-10 years of experience with an average rating of 5.6. Interestingly, the data reached a highpoint of 6.0 for teachers with between 16-20 years of experience. The average then reached a low point of 4.9 for teachers with more than 21 years of experience (see Figure 6.5).

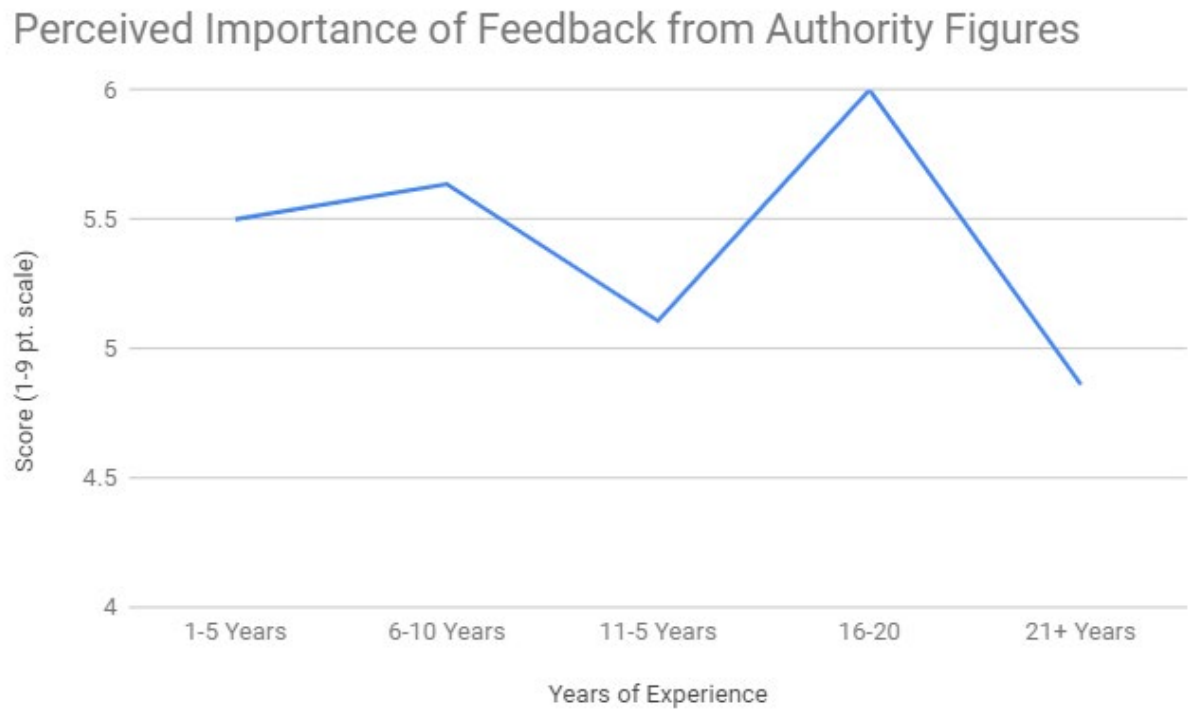


Figure 6.5. Perceived importance of feedback from authority figures to TSE development. (9-point scale with 1= not at all important; 9 = extremely important).

My findings suggested a disconcerting shift as teachers move beyond the first few years of experience. All four participants in my study who had between 4 and 10 years of experience expressed valuing and yearning for constructive feedback from their evaluator while receiving

almost none. Barbara described how she found a lack of formal evaluative feedback similarly disconcerting:

> Unfortunately, I feel like administrators that I've had haven't offered a lot of formal evaluations, maybe in four years. I don't think I had one last year. That's unfortunate because I do think that feedback is huge, and I could learn a lot if I'm given a proper evaluation. I mean, I'll get feedback, like "great lesson," if our administrators come in and spend five minutes in here. I really want the feedback.

My findings suggested an interesting relationship between years of experience and the value placed on feedback from authority figures. Participants with significant experience evaluated the quality of the feedback they received from authority figures. Three of the five participating teachers with over 21 years of experience identified poor quality feedback from an authority figure as an inhibitor of their TSE. For instance, Dawn described receiving surface-level feedback focused on minutiae and procedural compliance. This sort of feedback eroded Dawn's TSE for two reasons. First, she felt discouraged about the current state of teacher evaluation and began doubting her ability to be as effective as she had been. Second, this feedback pulled her away from her personal priorities regarding her teaching and created a sense of disequilibrium Dawn found challenging to navigate. Dawn said, "I need a lot less moral support … than I did in the past. I really could've used more constructive feedback early on, I mean I could still use it now, and I like it, but it needs to be meaningful." Dawn went on to describe a shift she noticed in her seeking of feedback. Dawn began surrounding herself with colleagues who could share ideas and provide feedback regarding their craft. In the next section, I explored this category of feedback from peers.

Feedback from Peers

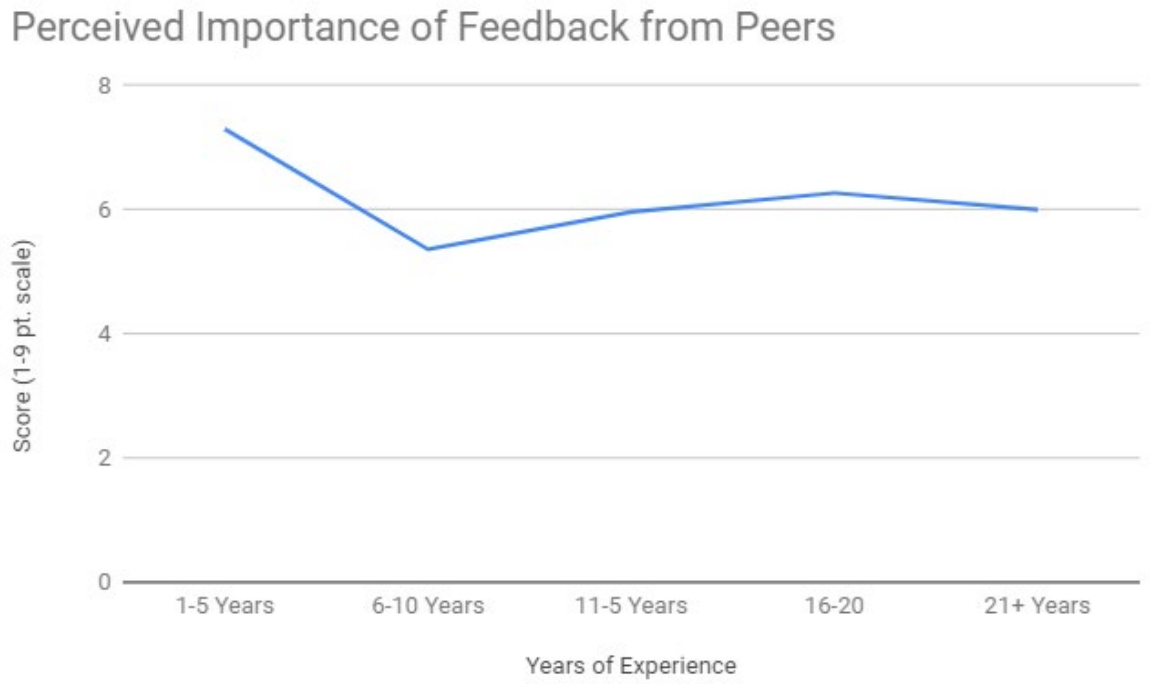


Figure 6.6. Perceived importance of feedback from peers to TSE development. (9-point scale with 1=not at all important; 9= extremely important).

Feedback from peers was either directly solicited or naturally occurred through social interaction. I classified feedback from peers as that which existed in a relationship where the power between the recipient and provider of the feedback was balanced. This feedback could be a systematic part of a structured feedback loop, or it could be spontaneous. Participants in the qualitative portion of my study and the respondents to the quantitative survey offered differing perspectives related to the perceived importance of feedback from peers. The quantitative data showed feedback from peers to be at peak importance in the first 5 years of a teacher's career (average = 7.3) and then slightly increased from the 6 to 10-year band (mean = 5.4) to the 21 years and beyond band (mean = 6.0) (see Figure 6.6). In contrast, the qualitative data suggested a

peak in the perceived importance of peer feedback among teachers with 10 to 20 years of experience.

The qualitative data suggested a shift in the importance of feedback from peers through the course of a teacher's career. Peer feedback was considered essential at all career stages, but participants between 6 and 15 years of teaching experience spoke most emphatically about the importance of this type of feedback. In all, five of the seven participants with between 6 and 15 years of experience identified feedback from peers as a contributor to their TSE. For some, this shift seemed to be spurred by a lack of meaningful feedback from authority figures, while others seemed to naturally progress to a more peer-based feedback preference.

Elizabeth worked as an instructional coach and found the feedback she was receiving from her evaluator to be insufficient. She was adamant that she was not displeased with the feedback, but she felt it was too compliance-focused and did not allow for the productive dialogue she believed was necessary to propel her professional practice. Elizabeth relied on her grade-level professional learning community, comprised of three veteran colleagues, as a source of feedback. Elizabeth and her team decided to meet much more regularly than the required 45-minute weekly common planning time. They started by meeting for one additional session per week and eventually got to the point that they shared most of their planning time.

Although much of their work was not designed to provide feedback, feedback naturally resulted when the teachers opened up space in their schedules to allowing for a fruitful conversation. Elizabeth not only placed a premium on the feedback she received from her colleagues, but she also honed her skill in providing feedback. Elizabeth identified this shift in her practice as a contributing factor to her eventual transition into an instructional coach position.

She emphasized providing non-evaluative feedback to the teachers with whom she worked to capitalize on the power of feedback from peers.

Thomas's experience represented those teachers who found feedback from authority figures to be valuable but in need of augmenting. He continued to seek and appreciate feedback he received from his supervisors but found it beneficial to create an informal network of peers to intensely discuss their practice. Initially, he found he tended to dominate these conversations because he was eager to discuss the current realities in his classroom. He then decided to take a step back and encourage the voices of others to be more present in the dialogue. Once he amplified the voices around him, he began to reap the benefits of their feedback.

As my findings demonstrated, dissatisfaction in the frequency or style of feedback can prompt a shift from seeking feedback from authority figures to peers. Regardless of the impetus for this shift, all participants who experienced this shift found a more organic source for feedback. By seeking feedback from peers, teachers mitigated the occasionally distracting lens of evaluation. The participants in my study described a natural and supportive benefit of feedback from peers. Feedback from peers was also not as limited as feedback from authority figures because it was not capped by the finite amount of time a principal or supervisor may have to provide feedback. As I explored in my next section, this evolution to a more natural and direct form of feedback, for some, evolved into seeking feedback directly from students.

Feedback from Students

Students provided direct and impactful feedback to teachers in several ways. Participants in my study identified three means of receiving student feedback, including direct verbal feedback, nonverbal feedback such as body language and affective responses, and data-based feedback such as assessment or survey results. The most experienced participants were most

likely to enhance their TSE through feedback from students. Seventeen of the 18 participants described the importance of receiving feedback directly from students. Of the 17 participants who identified feedback from students as a contributor to their TSE, eight identified it as the most critical form of feedback. Of these eight participants, seven had 11 or more years of experience, and five had 21 or more years of experience.

Although there was a clear correlation between years of experience and valuing feedback from students as a contributing factor to TSE, teachers with relatively little experience in the field still valued feedback from students. My findings, however, suggest a difference in the way teachers gather and process feedback from students based on their experience. Three of the five teachers with less than 6 years of experience who identified feedback from students as a contributor impacted their TSE utilized a deliberate and somewhat mechanical process. For example, Margaret described how she used questioning techniques to gather meaningful feedback from students to inform her future actions. During the interview, Margaret expounded, "I ask, 'How are you feeling now?' Afterward, and I tell them, 'Be honest.' I say, 'I'm here to help or here to problem-solve or here to work through things.' I need to know."

Conversely, five of the teachers with more than 15 years of experience who identified feedback from students as a contributing factor to their TSE engaged in more natural and cyclical feedback processes. My data suggested a shift from employing a separate feedback-gathering process for teachers with less experience to a more integrated process for teachers with more experience. James described the way he went about garnering feedback from students:

> It has an analytical component to it, but it's a combination of what it tells you to do, but then when you talk to the student, you personalize it to their story because not everybody responds to a cookie-cutter approach. I tend to process very, very quickly. I simply listen

> to everything the student is telling me, verbally, nonverbally, even though their assignments. It is all feedback. It just sort of comes naturally.

While James relied heavily on the purely organic approach to gathering feedback from students, the following example from Carol demonstrated a blend of deliberately seeking feedback with a natural process integrated into the overall teaching and learning experience. At the end of every unit, Carol engaged her students in a quick survey explicitly designed to allow Carol to gather information about the effectiveness of her pedagogical approaches. She asked questions about the learning experiences, the assessment process, the relevance of the content to the students, and engagement. These surveys only took a few minutes, but she made a point to share her interpretation of the survey results. In this way, Carol made it clear that she took the feedback from the students very seriously. In addition to this programmatic feedback-gathering process, Carol described responding to feedback from students in an ongoing fashion throughout the day.

In addition to the more traditional forms of feedback related to pedagogy, I have discussed thus far, more experienced teachers found feedback from students regarding the affective domain of learning to be beneficial to their TSE. Maria shared that in the earlier stages of her career, she found it challenging to integrate the cognitive and affective domains of learning. She found herself focusing on one or the other at any given time. Maria highlighted the role that gathering feedback from students played in allowing her to integrate her attention to the affective and cognitive domains. She described the process of listening with all of her senses, and explained that this method of gathering feedback could be exhausting because it required her to focus on the whole child. This focus on the whole child did not occur one student at a time. Instead, Maria opened herself up to constantly gathering information from her students related to

their academic, personal, and social-emotional needs. This information did not inform Maria's next steps for the following week or even the next day; rather, this feedback influenced the decisions she made for her students throughout the day.

My qualitative data suggested a natural progression in the way feedback contributes to TSE. In the early stages of a teacher's career, there was an emphasis on the importance of feedback from authority figures. As a teacher progresses, the focus on feedback shifted from authority figures to peers. The most experienced high TSE teachers described an additional change to prioritizing feedback that came directly from students. Gathering meaningful feedback from students required a level of trust between students and teachers. Trust was also important among colleagues to allow for meaningful collaboration. In the next section, I explored the role collaboration plays in TSE development through teachers' careers.

Collaboration with Colleagues

Collaboration with colleagues emerged as a critical element in the development of TSE and the final "*habits of learning*" theme. My findings, however, suggest less pronounced differentiation among career experience bands within the collaboration with colleagues theme than in the previous two themes I explored. Therefore, the analysis of collaboration with colleagues in this chapter is relatively brief. I defined collaboration with colleagues as working directly with other professionals toward a goal related to meeting the needs of students. I identified three categories in the collaboration with colleagues theme. In this section, I described the findings garnered both from the quantitative and qualitative portions of my study related to the subcategories of mentoring, professional networks, and peer coaching of others.

The general quantitative data related to this theme demonstrated a significant downward trend in the perceived importance of collaboration to the development of TSE as the respondents

progressed through their careers (see Figure 6.6). This same trend did not hold true in my qualitative findings. The relative importance of collaboration was stressed at all experience levels, but there were shifts in the ways participants conceptualized the role of collaboration as a contributor to their TSE.

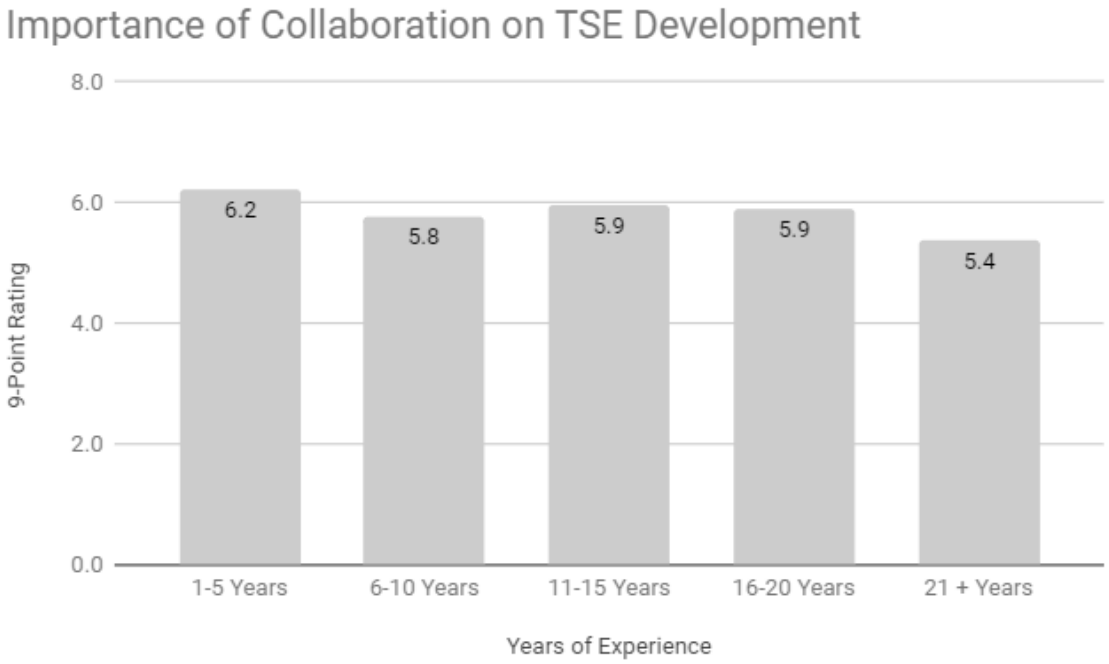


Figure 6.6. Perceived importance of collaboration to TSE development by teaching experience bands.

I identified three forms of collaboration that shifted in emphasis and frequency based on years of experience: mentoring, parallel collaboration, and peer coaching. I classified collaboration as mentoring when the participant highlighted examples of receiving mentoring from others that supported or bolstered their TSE. I classified parallel collaboration as examples of working with others in an environment devoid of a power differential. Parallel, or peer, collaborators cannot be cleanly differentiated as mentor and mentee, as the roles of the collaborators are essentially identical. Finally, I classified peer coaching as experiences in which the participant gained TSE by offering guidance or mentorship to other teachers. For these

examples, the nature of the relationship clearly delineates the role of mentor and mentee. Generally speaking, there was a trend from receiving mentoring to offering mentoring as a means to support TSE as teachers progressed through their careers (see Figure 6.7).

Figure 6.7. Shifts in forms of collaboration that support TSE through a teaching career.

Mentoring

Participants offered evidence related to mentoring from two primary perspectives. The first perspective was from that of a mentee focusing on mentoring experiences in which she was a recipient of others' wisdom and advice. The second perspective was related to a participant's role as a mentor for other teachers. In this section, I only explored the role that receiving support from a mentor played in the development of TSE. I explained findings related to offering mentoring support as a contributor to TSE in a subsequent section.

Mentoring, as common sense would suggest, was recognized as a more significant contributor to TSE for teachers at the earliest stages of their career. All eight participants in my study with 10 or fewer years of experience discussed the impact of mentoring on their TSE. Participants described mentoring across two separate dimensions. The first dimension describes the level of formality involved in the mentoring, while the second dimension describes the focus of the mentoring (see Figure 6.8). The foci of the mentoring shared by the participants existed on a continuum from hyper-focused on procedures and compliance to holistic support based on the needs of the teacher. Holistic mentoring addressed instructional challenges, emotional support, or student-centered coaching. Of the eight participants who identified mentoring as a support for

their TSE, all eight identified holistic mentoring support. Three of these same eight participants did mention narrowly focused, procedural mentoring. All three of these participants, however, identified this sort of mentoring as a limiter of their TSE or as an ineffective comparison to the beneficial holistic mentoring.

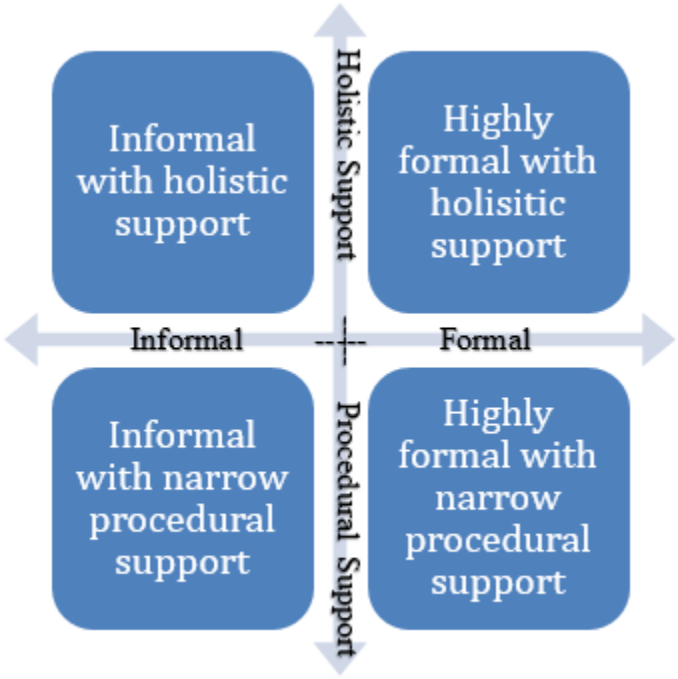


Figure 6.8. Formality and focus matrix showing types of mentoring.

Loretta described an informal holistic mentoring relationship to which she attributed TSE development. Loretta was fortunate enough to have a veteran teacher take Loretta under her wing. This veteran teacher made a point to reach out to Loretta and offer guidance and support. The mentor teacher listened to Loretta and helped her focus on the student issues that were troubling Loretta. Loretta served as the driver of the conversations with her mentor. She realized her mentor allowed her to guide the conversation because she wanted the topics linked to Loretta's perceived needs. Loretta appreciated the informal nature of their collaboration because

it “did not feel at all like evaluation.” This informal approach, although beneficial for Loretta, was not the preferred form of mentoring for all participants.

Kevin found that his TSE developed greatly as a result of his mentor. I classified Kevin’s mentoring relationship in the formal-holistic quadrant. Kevin’s principal assigned a highly respected veteran teacher to serve as Kevin’s mentor. Through the mentor program at his school, Kevin met with his mentor at least once every other week. The program included opportunities to discuss and explore specifically assigned topics, but also allowed for support based on the needs of the mentee. Kevin appreciated the formality because it guaranteed access that time conflicts might otherwise erode.

Kevin admired his mentor due to his positive attitude and his student-centered approach to his craft. Through support from his mentor, Kevin learned to avoid negativity in his school. The mentor advised Kevin to seek out positive influences who did not blame their struggles on others, especially students. Kevin internalized this lesson and attributed some of his early TSE development to this support. Kevin said of his mentor, “He was a guy I really looked up to. We still meet and talk even though he isn’t my mentor anymore. He was the kind of guy who taught like I wanted to.” Kevin appreciated the holistic aspect of his mentor experience. Other mentoring relationships took a different approach to the process.

In some cases, the mentoring relationship was based more on procedural compliance and tight predetermined expectations. Although participants highlighted these experiences, they highlighted them as examples of limiters of TSE or as points of contrast from the preferred holistic approach. For example, Margaret felt a lack of support from the formal mentoring structures established for her. She quickly filled the void left by what she viewed as insufficient mentoring and found role-models that could serve as informal mentors. Margaret explained that

it was not the fault of the mentor that the support was insufficient. Instead, she blamed the tight structures for their limiting influence on the mentoring process:

> Honestly, I think the mentor was supposed to be checking in with me a lot more, but they never did. It was only on our scheduled meetings. I mean, we would check-in, obviously, in department meetings. We're all sitting together. If I had questions, I knew I could go to that person, but I also knew I could go to some of the other teachers too. That helped a lot because I could find the help I needed by just reaching out to others.

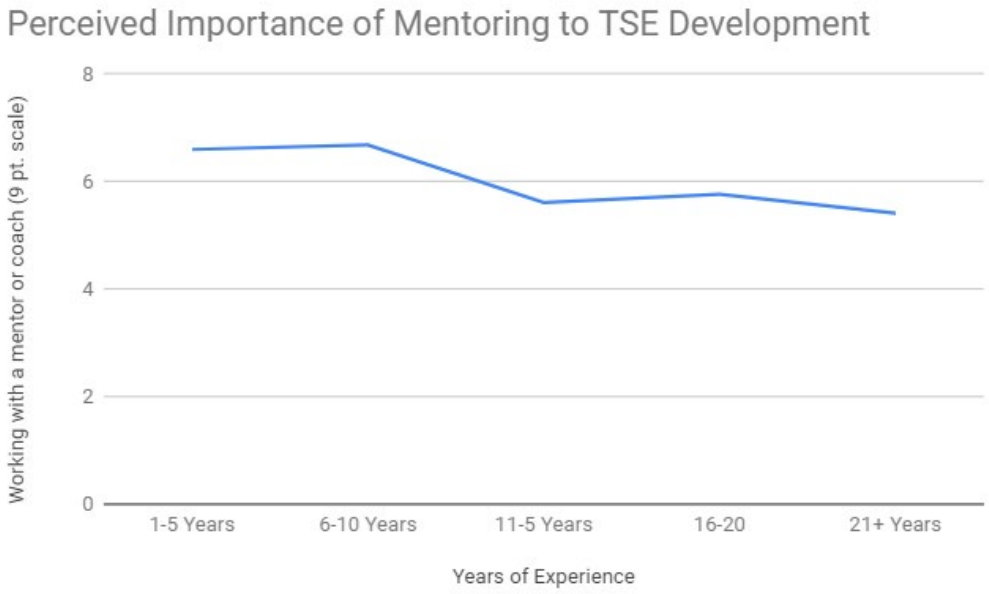


Figure 6.9. Perceived importance of mentoring to TSE development across a teaching career.

The quantitative data also supported the importance of mentoring to high TSE teachers. The respondents to the survey with 1 to 5 years of experience rated the importance of mentoring to TSE development with an average score of 6.6 on the 9-point scale. This average climbed slightly to 6.7 for teachers with between 6 and 10 years of experience. Similar to the qualitative findings, the perceived importance of mentoring then dropped to a low point of 5.4 for teachers with 21 or more years (see Figure 6.9).

The elevated perceived importance of mentoring relationships to the development of TSE was not surprising as leaders typically enacted these supports for new teachers. After a few years of teaching, most teachers did not have access to a formal mentor. High TSE teachers often sought out support to continue to learn with others and collectively support TSE development. In the next section, I examined the role collaborative professional networks play in the development of TSE.

Parallel Collaboration

I defined parallel collaboration as informal or formal groups of educators with similar interests voluntarily working to support, inspire, and learn from one another. I found it necessary to consider experience differently for this category because the shifts in perceived importance did not match closely with the experience bands I had established. I identified a clear point of delineation at five years of experience. Seven of the nine participants who identified parallel collaboration had between five and 15 years of experience.

Teachers who identified parallel collaboration as a contributor to their TSE did so from a variety of perspectives. Debra, for example, discussed extended professional learning communities (PLCs). Every school represented in my participant group leveraged PLCs for student performance and instructional improvements. Every district took a different approach to PLCs, but they were all focused on systematically using data to improve student outcomes (DuFour & Eaker, 2009). Debra explained that her district-mandated one PLC meeting per week on a scheduled day and time. She and her PLC partners recognized the value of their PLC and created a parallel collaboration extension. They met between three and five days a week supporting one another with curricular, student, or other professional issues. Debra explained, "We have 45 minutes to collaborate with each other. We meet way more than we have to. . . So

that's actually nice because I've never had this much communication time in 14 years with other teachers."

Another form of parallel collaboration was engaging in professional networks outside the four walls of the school. Recent advances in technology-based networking have made this more possible. Maria described her use of Twitter as a means to develop her TSE. She followed several prolific users of Twitter that not only offered ideas to incorporate into the classroom but also interactive, collaborative opportunities. Maria said she initially simply read posts but eventually began to participate in online exchanges with other like-minded teachers throughout the world. Maria described sharing thoughts and getting advice from teachers in very different settings as "incredibly motivating" and a big part of her personal, professional growth efforts. She attributed TSE development directly to this technology-enhanced opportunity.

Mary, the instructional coach, described the way she leveraged her role as a coach to open up collaborative opportunities that enhance her TSE. When Mary began coaching, she felt her perceived authority limited her ability to collaborate meaningfully with peers. "I went from a teacher who collaborated all the time to a coach on an island," she remembered. Mary decided to address the issue and invite teachers to visit as a group and explore general topics of shared concern, such as formative assessment or family communication strategies. She began by scheduling time and a place and letting the rest of the dialogue emerge organically. She intentionally tried to limit her voice in these conversations so she would not be perceived as the authority. Eventually, Mary was able to participate as an equal in these groups. "Once we are able to all share our ideas and even challenge one another, I started to feel that boost I got from working with my teacher team," she said.

Mary described an interesting phenomenon related to her TSE development. After Mary realized the TSE "boost" she received from parallel collaboration, she shifted her approach as a coach and found she could sustain her TSE by serving as a mentor or coach to others. Mary described her early experiences as a coach as not necessarily supportive of her TSE. She felt she focused too much energy on compliance; thus, others perceived her as a "pseudo-administrator." Her experiences with parallel collaboration helped her realize she could sustain her TSE by supporting others to meet the needs of their students. In the next section, I explored the role that peer coaching and mentoring others played in teachers' TSE development.

Peer Coaching of Others

Mentoring and coaching are two-way social endeavors. I previously described the role receiving mentorship plays in the development of TSE for lesser experienced teachers. I defined peer coaching as the act of offering guidance, support, and supportive direction to other teachers, often those with less experience. This type of collaboration was the most clearly delineated by teaching experience. All eight participants who discussed the impact of peer coaching of others on their TSE had over 15 years of experience. Overall, nine of the 10 participants with 16 or more years of experience identified one or more of these three mentoring categories as contributors to their TSE.

Participants identified three distinct ways they relied on peer coaching of other teachers as a means to support their TSE development: formal mentoring, instructional coaching, and informal but deliberate support. I previously explored the role that receiving mentorship played in the TSE development of less-experienced teachers. In this section, I classified formal mentorship as opportunities for teachers to provide direct support to new teachers as part of a districtwide or schoolwide structured mentor program. I defined instructional coaching as

opportunities for experienced teachers to work with other teachers regardless of experience in increasing their instructional effectiveness. Finally, informal but deliberate support is intentional that which was intentional and occurred outside of any formal structure. This type of support contributed to TSE development for more experienced teachers. I only classified data in this category if the teacher providing the guidance sought out these opportunities or deliberately made themselves available to support other teachers.

Five of the nine teachers represented in the peer coaching of others category identified serving as a mentor in a structured mentorship program as an experience that supported their TSE development in the later stages of their career. For example, John Paul described the impact that being recruited to serve as a mentor had on his TSE. He explained that he had reached a point in his career where he felt confident in his ability to meet the needs of his students. When his principal asked him to serve as a mentor, John Paul was invigorated. He explained that going through the mentor training and subsequently serving as a mentor forced him to be more reflective of his practices. In this way, serving as a mentor activated a previously identified contributor to TSE—self-reflective practices.

John Paul noted that the essential tasks included in serving as a mentor contributed to his TSE as well. He explained that serving as a mentor reminded him of the gravitas of teaching. By working with other teachers to increase their ability to meet the needs of all students, John Paul realized his impact was reaching beyond his classroom. The sense of giving back to the profession by serving students outside a direct sphere of influence emerged as a consistent element among high TSE veteran teachers. Mentorship is typically designed to support teachers who are new to the profession. Instructional coaching, another formal structure that supports

TSE development of veteran teachers, is a structure available in many schools that is available to all teachers regardless of experience level.

Interestingly, three of the six high TSE participants with 21 or more years of experience had recently transitioned from the role of classroom teacher to instructional coach or a similar position. Instructional coaches are typically responsible for supporting the curricular and instructional initiatives of a school through a structured process of modeling best practice strategies, observing teachers' instructional delivery and providing pertinent feedback, and providing professional development on prioritized initiatives (Knight, 2007).

All three teachers who worked as instructional coaches explained that their use of instructional coaching techniques preceded their assignment as an official instructional coach. Carol, for instance, was drawn to the role of an instructional coach after she found herself serving as a coach in an informal capacity. Carol had previously served as a mentor but came to realize that her support of other teachers did not need to be limited to new teachers. She found herself supporting teachers from all career stages. Carol often hosted other teachers in her classroom to observe her in her practice. The resulting conversations about the instructional strategies observed by other teachers supported Carol's TSE. These sorts of experiences prompted her to apply for an instructional coach position.

During the first year in her new position, Carol found herself questioning her decision to become an instructional coach. She found the lack of direct contact with students to be less satisfying than serving as a classroom teacher had been. Initially, she found the role of instructional coach to be a limiter of her TSE. Carol decided to continue as an instructional coach and soon found ways to capitalize on the expanded impact of her role to support her TSE. She also found the need to assert her autonomy and not simply adopt an instructional coaching

program that was overly structured and lacking a true student focus. Carol found subsequent years of her role as an instructional coach to be far more rewarding and supportive of her TSE. Carol adopted a student-centered coaching approach (Sweeney & Harris, 2017). Student-centered coaching shifts the focus from teacher practices to student evidence of learning in the instructional coaching process. In utilizing this approach, Carol was able to instill her commitment to a *focus on students* in the teacher with whom she worked.

Three of the nine teachers in my study who found peer coaching of others supportive of their TSE did so through informal but deliberate means. The teachers represented in the section did not serve as mentors, nor did they work as formal instructional coaches. These teachers found it gratifying to find ways to support their colleagues. In doing so, they recognized that through informal coaching, they could serve students throughout the entire school. These three participants identified this expanded role as the finite element that contributed to their TSE.

For example, Dawn experienced a resurgence in her TSE after 25 years of teaching. She found herself working with a new team of teachers after several years on a consistent team. Teachers on her new team reached out to Dawn to learn from her experience. This act of reaching out for advice opened a door that Dawn had thought was closed permanently. Dawn willingly walked through this door and found ample opportunity to collaborate deeply with her new team, sometimes providing advice and sometimes receiving it. Dawn identified this experience as the strongest contributor to her TSE in the past 15 years; she described this experience as “feeling like a new teacher again [and] being excited to find new ways to work with my kids. I absolutely love my team.”

Collaboration supports the development of TSE throughout a teacher’s career. In this section, I outlined the general trend from TSE development through receiving mentorship in the

early years of a teacher's career to working side-by-side in parallel collaboration and finally boosting TSE by offering peer coaching and mentorship to other teachers with a sharp *focus on students*. One of the topics participants described as fueling the dialogue in a mentor-mentee relationship was the creation of inclusive learning environments. In the next section, I explored and described how engaging in inclusive practices contributes to TSE throughout a teaching career.

Commitment to Inclusive Practices

A commitment to inclusive practices for students materialized as a dominant theme in my study. Inclusive practices are firmly rooted in a philosophical stance asserting all students deserve a meaningful educational experience with their peers (Villa & Thousand, 2017). The overall quantitative data suggest a slight uptick in the perceived importance of inclusive practices on TSE development starting at the 11 through 15 years of experience band and then leveling out throughout the remaining bands (see Figure 6.10). In this section, I explain my findings related to the subcategories of high expectations and the avoidance of labeling. I briefly described these findings as the differences among the teaching experience bands were not as significant as they were with the other four themes.

The theme of a commitment to inclusive practices was the least affected by the career stage of the participants. In other words, the differences related to the way participants perceived inclusive their TSE did not vary significantly from lesser experienced to more experienced teachers. The one discernible difference is that teachers at the beginning of their career perceived their TSE to be positively impacted by implementing inclusive practices. My data suggested this did not change for teachers at later career stages, but those more experienced teachers expanded their role and moved toward advocacy for system-wide inclusive practices.

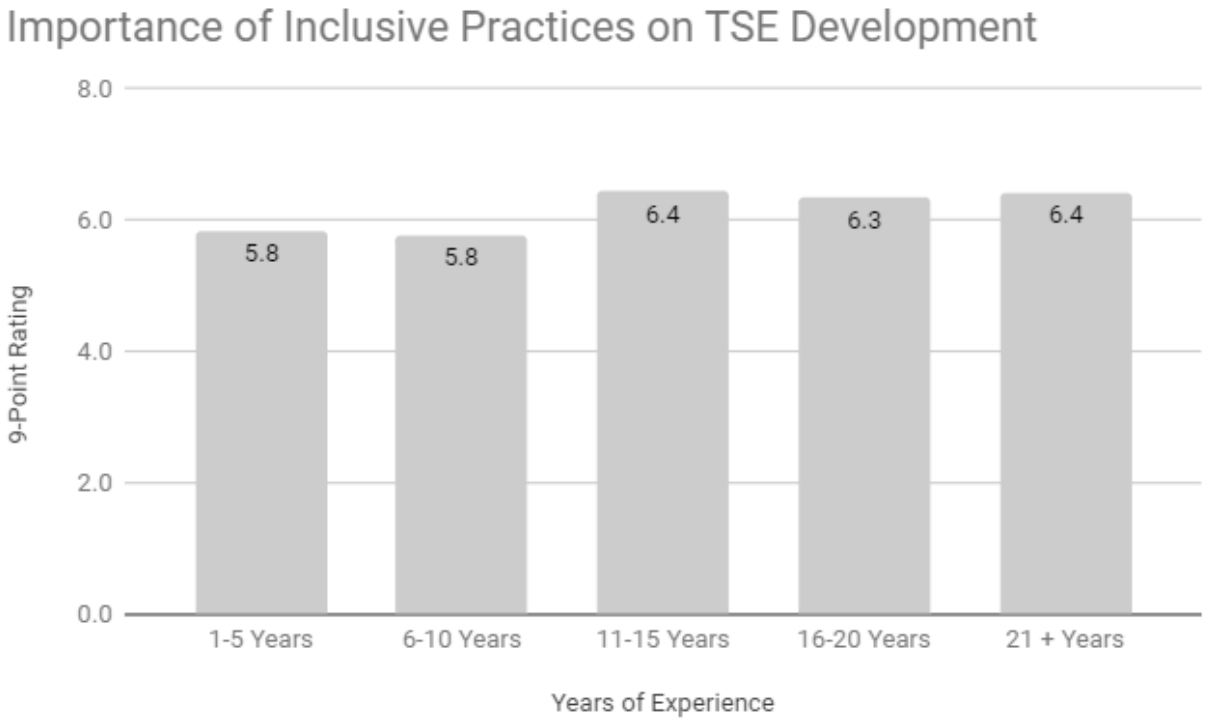


Figure 6.10. Perceived importance of inclusive practice on the development of TSE by teaching experience bands.

Implementing Inclusive Practices

Participants across all experience bands described the implementation of inclusive practices from three perspectives—social-emotional, behavioral, and academic. In this section, I include data for those teachers who identified implementing inclusive practices as contributing to their TSE but did not identify advocacy for system-wide inclusion. Eight of the 13 participants with 15 years of experience or less identified, merely implementing inclusive practices as a contributing factor to their TSE. Three of those teachers described inclusion primarily from a social-emotional perspective. Of the three of the teachers who described the role of inclusion on their TSE from a social-emotional perspective, two focused on the benefits of the student who would otherwise be excluded from the general classroom experience. For example, Lacey

discussed the importance of authentically inclusive environments for students without disabilities who could learn to value and connect with students with disabilities. She summarized her thoughts on the topic by saying, "They can't make connections with friends or show their positive side if they're rarely around. (If they are rarely around), they could become a mascot."

One of the teachers who described the social-emotional element of inclusion and its impact on TSE described the benefits of developing an inclusive environment for the class as a whole. Barbara shared how her focus on being inclusive has fostered a strong classroom community. “Sure, I have challenging kids, whether it be academically that I need to keep differentiating for emotional [needs] as well. We keep working on it. This class has evolved into a true community … I just love them. All of them.”

Four of the nine teachers described inclusion from a behavioral perspective. Kevin described how learning strategies to allow a student with behavioral issues to be more successful in his classroom impacted his TSE. He emotionally shared how he learned to use visual prompts and calming techniques to allow one student to be successful. He said, "We'd look at each other, and I'd raise my shoulders, and he'd raise his shoulders, and he would put them down. He would calm himself down that way. I realized I could reach kids just like that just in that personal connection, but you need to know what's going on, so that connection."

Four of the nine teachers addressed the impact of inclusion on their TSE approach the topic from an academic perspective. These teachers identified inclusion as a core component of effective teaching. One participant described her efforts to meet the academic needs of all students as a puzzle that must be solved. Debra described the situation with a student who was struggling academically. She said it took over a semester to finally make him feel as if he belonged in the classroom and that he could be successful. She described the process of inclusion

as much more than merely the placement of a student but also the efforts all teachers should make to ensure every student feels welcomed and can be successful. Teachers across all career stages described implementing inclusive practices as inextricably linked to their sense of TSE. Teachers with more experience, however, took inclusion to the next level and advocated for system-wide inclusive reform efforts.

Advocating for Systemic Inclusion

Participants in my study with more than 20 years of experience described a more sophisticated relationship between their TSE and inclusion. Three of the five teachers with more than 20 years of experience described advocating for system-wide inclusive practices. Mary, for example, discussed the realization she had regarding the unintended consequences of an initiative with the best of intentions. Mary felt that an emphasis on Response to Intervention (RtI) had forced teachers to think about placing students in intervention as opposed to improving instruction for all students.

Response to Intervention (RtI) is a method of providing support to students who require more than the core curriculum and instructional program can offer. RtI is based on the concept of exposing students to research or evidence-based intervention aimed at addressing an identified need and then measuring the student's response to that intervention (Fuchs & Fuchs, 2006). Mary felt her school, along with many others, was missing the mark and unintentionally excluding students from participating in the educational process with their peers in the name of individual intervention. Mary was motivated to advocate for changes in the way her school employed the RtI model. She worked with her school principal and her teaching team to create a more inclusive model that included increased support in the general education classroom. Mary described this advocacy as an important contributor to her TSE because she realized her

experience afforded her a level of authority that could amplify her impact beyond her classroom.

Although this impactful shift in Mary's approach to advocating for inclusive practices was significant and was similar to two other participants with over 20 years of experience, there were no other discernible differences across career stages related to the way a commitment to inclusive practices impacted participants' TSE. In the next section on prioritizing student relationships, however, there was no shortage in the differences across career stages.

Prioritizing Student Relationships

Prioritizing student relationships emerged as a primary theme in my study. I defined the prioritization of student relationships as teacher behaviors and actions aimed at learning more about the personal, social, and emotional aspects of a student's life. Strong student-teacher relationships contribute to students' feelings of safety and security in the school environment, increased sense of competence, and academic growth (Hamre & Pianta, 2006). The quantitative data I gathered from my statewide survey demonstrates a pronounced increase in the perceived importance of student relationships on TSE development as teachers progress through their careers. Teacher respondents with 1 to 5 years of experience rated the importance of student relationships with an average of 5.5 on the nine-point scale. This rating increased in each subsequent experience band with the final average rating of 6.9 for teachers with 21 or more years of experience (see Figure 6.11).

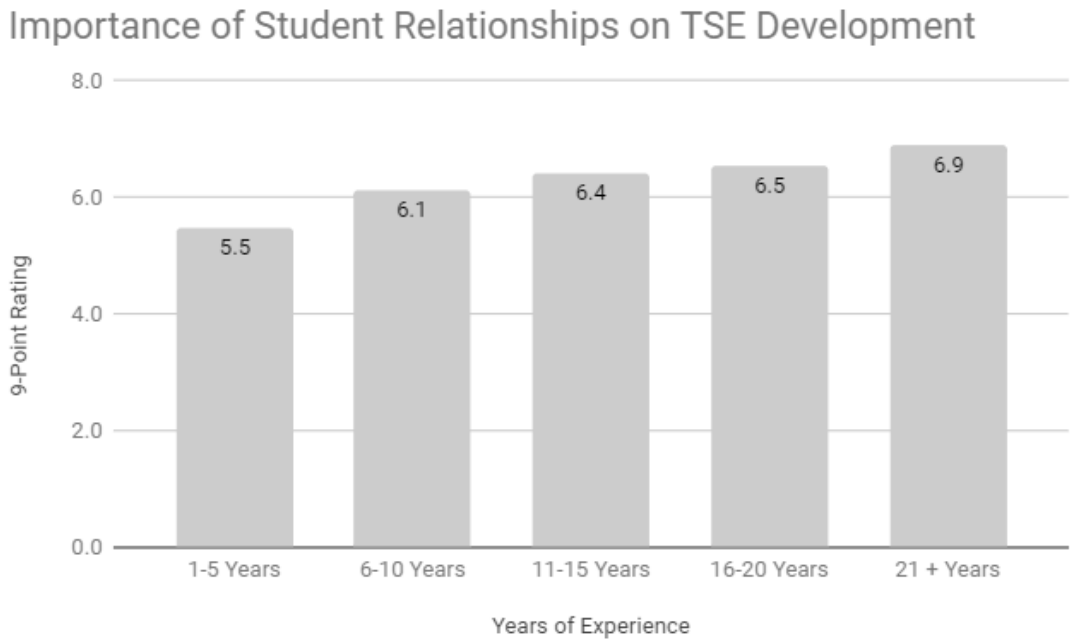


Figure 6.11. Perceived importance of student relationships on TSE development by teaching experience bands.

As I explored the subcategories of prioritizing student relationships—teacher as friend, teacher as classroom community creator, and teacher as student self-efficacy developer—I explained both specific quantitative findings from questions related to this theme and the qualitative findings from my in-depth interviews and focus groups. Generally speaking, my data suggested a trend from focusing on individual friendly relationships with students early in a teacher's career to focusing on creating classroom community in the mid-years and then finally leveraging relationships to build students' self-efficacy (see Figure 6.12).

Figure 6.12. Shifts in the focus of student relationships through a teaching career.

Teacher as Friend

When developing student relationships, teachers may cultivate friendships with students to demonstrate their personal interest in their students' lives. I identified data as demonstrating the impact of teacher-student friendships when the participant's goal was ensuring the student personally liked them. In many cases, teachers identified friendship with students as a foundational element to reaching more significant relationship-based goals. I addressed these types of relationships in subsequent sections. I classified the teacher as friend subcategory of prioritizing relationships as those in which the teacher focused energy on connecting with students based on student interest. Additionally, data related to this subcategory included a preference for having the student personally like the teacher. Data classified as teacher as friend do not provide clarification as to how the student benefitted from the relationship beyond the teacher being fond of the student on a personal level.

My findings demonstrated a pronounced shift in the importance teachers placed on students viewing them as a friend and its impact on TSE. Five of the six participants with 10 or fewer years of experience identified maintaining friendships with students as a contributor to their TSE. Conversely, only two of the 12 teachers with more than 10 years of experience considered student-teacher friendships a high priority. For example, Lindsay, a preservice teacher, described the importance of students perceiving her as a friend. Lindsay explained her TSE was impacted, and that she got a sense that she was reaching her students when they connected on a personal level. Her description of this personal connection was limited to a surface-level friendship. She described tapping into student interests and demonstrating shared interests. She described, for example, putting up posters in her classroom based on the interests

of her students. At no point did she describe how she leveraged these relationships for student growth or achievement.

Barbara described how she allowed students to get to know her on a personal level so she can "seem more human to them." By providing her students insight into her life, she hoped her students would feel more comfortable asking for assistance or sharing their ideas. She described her commitment to being accessible to her students, including responding to emails for help at night. For Barbara, the purpose of personal relationships was to develop a sense of comfort and open lines of communication. Barbara went on to describe how her availability and personal connections to her students strengthened her TSE by reinforcing her commitment to her students. Barbara offered this emblematic description, which was closely aligned to all of the other examples of the teacher as friend concept.

Participants in the early stages of their career also described the use of humor as a means of developing strong student relationships. Again, in these examples, I made the distinction that the relationship was not leveraged to challenge the student. Instead, the purpose of the relationship-building strategy was to make students feel more comfortable. Kevin, for example, described the way he used his sense of humor to make a reluctant learner more comfortable in his classroom. "I just try to be very approachable," he noted. "I don't try to be arrogant, or cocky, or anything like that. I just tried to be very approachable and willing to joke around and let my kids know I like them." Interestingly, Kevin provided evidence of a shift he began to make once he had been teaching for about eight years. He realized he could employ his relationship-building skills to help his students create positive relationships with one another. This shift toward focusing on classroom community was common among teachers in the middle career stages.

Teacher as Classroom Community Creator

Classroom community is an essential component of any student-centric learning environment (Charney, 2015). As teachers described the importance of student relationships to their TSE development, some focused on the importance of the proactive steps to develop a strong classroom community. Five of the seven participants in my study with between 6 and 15 years of experience described the development of classroom community to foster strong student relationships as a contributing factor to their TSE.

These participants shared a sense that the development of strong classroom community was a natural outgrowth of their less sophisticated focus on individual student relationships. The previous focus on individual student friendships solely as a means of developing relationships required the teacher's active presence in all interactions. The shift to focusing on developing strong classroom communities allowed positive relationships to be developed independently of the teacher's direct involvement. Participants who provided emblematic data of this category stressed the fact that their impact on students was amplified because they were building their students' capacity for supporting one another and interdependently solving problems.

In the previous section, I discussed how Kevin used a sense of humor to develop comfortable relationships with his students. Kevin reflected on the memories he had of influential teachers who took the time to develop strong relationships. When he had around eight years of experience, he realized he was focusing the majority of his energy on the relationships he had with students, not the relationships students had with one another. Kevin shifted his focus to building strong classroom communities. He quickly found this effort to be supportive of his TSE. He recalled a moment in which students were able to solve their own interpersonal conflicts that were getting in the way of their learning. Independently of Kevin, the students used

a classroom meeting structure that Kevin had previously used in the classroom. Kevin realized this the students' knowledge of this structure amplified his impact because it empowered the students and allowed him to remove himself as the necessary part of any problem-solving scenario.

Joanie experienced this transformation at approximately the same point in her career. Joanie explained the way she and her team used situational role-playing, known as social stories, to build relationships with and among their students. She then leveraged the strong relationships to build independence with her preschool students. Joanie enjoyed a strong sense of accomplishment when her students began to model a level of independent and interdependent problem-solving. She said, "I knew we were preparing our students to be successful in elementary school by helping them learn how to solve their own problems with each other."

In some cases, participants described building strong relationships with individual students to allow them to be part of the classroom community. Debra, for instance, described a relationship with a student who was demonstrating some antisocial behaviors that made it hard for her, as a teacher, to develop a relationship with the student and for the student to develop strong relationships with classmates. Debra independently met with the student, spent time building a relationship, and then strategically found opportunities for the student to be helpful and demonstrate success in the classroom. Debra said that it was not a quick fix, but she continued to invest in this relationship to ensure that her student could feel part of the overall classroom community.

This focus on developing classroom community as a means to sustain TSE was not exclusive to teachers in the middle stages of their careers. In fact, the majority of participants in the latter stages of their careers also identified building classroom community as a contributor to

their TSE. The difference, however, is that more experienced participants added an element to their strategy of leveraging student relationships for success; they found developing student self-efficacy to be highly supportive of their own TSE development.

Teacher as Student Self-Efficacy Facilitator

More experienced participants found the act of developing student self-efficacy to be a major contributor to their own TSE development. Figure 6.13 illustrates the trend based on two questions from the quantitative portion of my study that asked how teachers perceived the importance of making independent decisions and fostering student independence. The concept of student independence emerged as a characteristic of student relationships with more experienced teachers. High TSE teachers with considerable experience found the act of building student self-efficacy supportive of their own TSE development.

Eight of the ten participants with 16 or more years of experience described supporting student independence and self-efficacy as a contributing factor to their TSE. Five of these eight participants described holding such high expectations for their students that they initially created a sense of discomfort among their students. This is in sharp contrast to teachers in earlier career stages who focused explicitly on making students feel comfortable. Experienced teachers described the iterative process of using strong relationships to build up their students and push them to the next level, whether academic, behavioral, or social-emotional. These participants relied on their strong relationships to allow them to push students outside of their comfort zones.

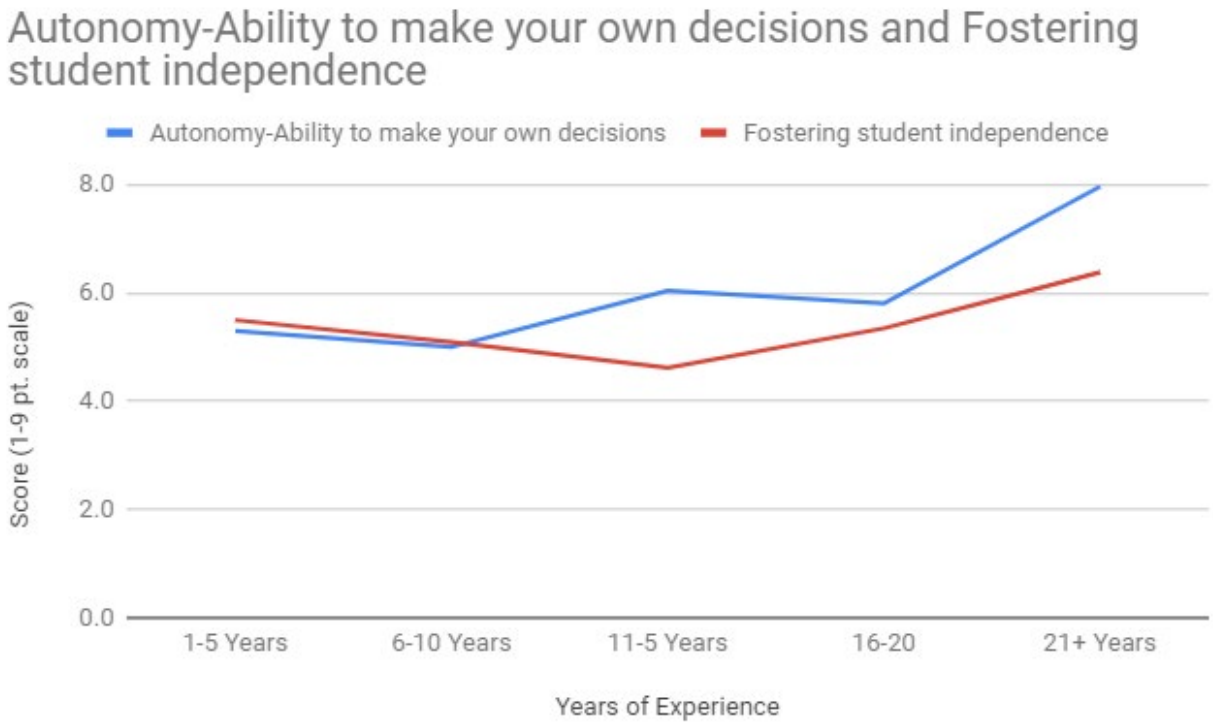


Figure 6.13. Perceived importance of autonomy to make decisions and fostering student independence on TSE development.

For example, Maria said of her students, “If they don't believe in themselves and they're not continually encouraged, they are not going to believe in themselves. But not babying. Nurturing is important, but we need them to test their limits.” Maria went on to explain that she often found her students intimidated during the first few weeks of school. She even said it was not uncommon to have some of her students cry because they had been pushed outside their comfort zones. Once they realized Maria was dedicated to serving as their tireless advocate, however, the tears went away.

Maria used the word “empowering” several times during our interview. At one point, she was describing empowering a student who had difficulty keeping up with his homework responsibilities. She used language with the student to reinforce the fact that he had choices to make, and those choices could lead to a path of success or challenge. She clearly established

expectations and held the student responsible for meeting these expectations while reinforcing the student's choices, thus engaging the student's internal locus of control (Rotter, 1966).

James also described the process he used to maintain high expectations while developing student self-efficacy. James explained to his students that, as high school students, they needed to take control of their own learning. He went on to ensure them that he would support them every step of the way. He explicitly explained to them that their learning would be much more meaningful if they "take the driver's wheel." James also discussed his unique style of building relationships with students. James described himself as a strongly introverted individual and recognized earlier in his career that some introverted students had a hard time developing typical relationships with teachers who tended to be gregarious entertainers in the classroom. He realized he could leverage his introverted style to reach students who may not have felt a strong connection with their teachers. James made a point to not, as he would describe it, pry into his students' personal lives. Instead, he met with all of his students one-on-one to learn more about their goals and aspirations. In a variety of ways, he let all of the students know that he would support them in reaching their goals, but that ultimately, their success was up to them. James described feeling his sense of TSE bolstered when students shared with him their progress towards their goals. Although James described himself as someone who did not need accolades, he admitted his TSE was also enhanced when former students reached out to him and let him know the positive impact his encouragement had on their life.

Most participants in this category implied that developing student self-efficacy was a contributing factor to TSE. Elizabeth, however, explicitly described this phenomenon: "My self-efficacy goes up when I see my kids develop self-efficacy. I know I did my job when my students know that they are capable of great things." In this section, I described how prioritizing

student relationships differently affected participants' TSE development, depending on their career stage. My data suggest a general trend from focusing on friendships with students at early stages in teachers' careers to cultivating community and then fostering student self-efficacy at later stages in their careers. Experienced teachers had realized their ability to meet the needs of all of their students could be dramatically enhanced if the students were empowered to believe in their own agentic abilities.

Summary

In this chapter, I described my findings related to one of my primary research questions: How does the process of developing and sustaining TSE differ depending on the career stage of a teacher? Among all five themes, there were distinct differences in the ways teachers at various career stages developed and sustained TSE. My findings related to TSE development suggested a general trend toward a stronger focus on individual students and enhanced impact outside of the classroom as teachers progress through their careers. In the following chapter, I analyzed these findings using Super's (1953, 1983) Life-Span Life-Space theory (LST) and Maslow's (1968, 2018) Hierarchy of Needs (HON) theory.

CHAPTER 7: THEORETICAL ANALYSIS BY CAREER STAGE

In this study, I set out to develop a theory that explains the processes through which teachers develop self-efficacy throughout their careers. In this chapter, I analyzed the differences in self-efficacy found between teachers' various career stages. My research related to teacher-self-efficacy supported *and extended* the current body of scholarly research I reviewed. For example, scholars identified mentorship for new teachers as a key support for developing TSE (Yost, 2008). My qualitative and quantitative findings strongly support this supposition. In general, there is strong alignment among all five themes and the related body of research.

My research, however, also offered a significant extension of current literature on teacher self-efficacy. As Tschannen-Moran, Woolfolk-Hoy, and Hoy (2018) recognized, there is limited research related to the development of TSE throughout a teacher's career. There is ample research related to supporting TSE of pre-service and new teachers (Hultell, Melin & Gustavsson, 2013; Woolfolk-Hoy and Spero, 2005). However, research related to TSE development for teachers beyond five years of experience through retirement was limited. My research offered insight into the processes in which teachers engage as they develop TSE throughout their careers. Specifically, my research expanded our understanding of how teachers accessed the five themes as they navigate their careers. Teachers at all stages engaged in practices related to the five themes at all stages of their careers. As teachers progress through their careers, they increased their focus on their students, and they sought more opportunities to expand their influence.

For this chapter focused on TSE development through career stages, the data suggested a reconceptualization of the *habits of learning* and *focus on students* theme groupings. When considering these themes in relation to TSE development through career stages, these theme

groupings assumed a more transformative significance. The habits of learning themes operate as the fuel that propels teachers through the process of generating and sustaining TSE. High TSE teachers use feedback, reflection, and collaboration to incrementally develop TSE. As they progress through their career, they manifest these themes differently, as described in figure 6.1.

The *focus on student* themes also evolved to a more transformative paradigm when considering inclusion and student relationships through a teacher's career. Not only do high TSE teachers strongly rely on student relationships and inclusive practices in their day-to-day work with students, but they also focus their long-term professional learning and goals on these concepts. Thus, the habits of learning operate as the fuel to drive toward the focus.

I integrated both qualitative and quantitative findings and employed Super's Life-Span Life Space Theory (LST) (1953) and Maslow's Hierarchy of Needs theory (HON) (1968) in this analysis. Super (1953) developed LST to explain how people choose career paths based on their interests and abilities. Super asserted that career identities interrelate with other identities; vocational experiences alone do not determine career identity (Super, 1983). Super postulated that people progress through specific stages of development that shape career choices. These stages include Growth (ages 14 and under), Exploration (ages 14 to 25), Establishment (ages 26 to 45), Maintenance (ages 46 to 65), and Disengagement (ages 65 and beyond) (Super, 1980). In this chapter, I used elements of this theory, including characteristics of each stage, to analyze the TSE contributors of participants in each of the approximate age ranges and to better understand the specific processes teachers use to foster and maintain their TSE.

Maslow's Hierarchy of Needs (HON) theory explains the way certain needs drive human motivation. (Maslow, 1968a; Gawel, 1997; Koltko-Rvera, 2006; Baslevent & Kiramanoglu, 2012). Maslow classified and arranged human needs in a hierarchy where lower-level needs must

at least be partially met before a person can climb in the hierarchy to access the motivation of higher needs (Maslow, 1968a).

The needs in this hierarchy include 1. Physiological needs, including sustenance and sex 2. Safety needs, including protection from dangers and a drive for stability. 3. Love needs including belongingness and affection. 4. Esteem needs for self-respect and for respect of others often referred to as ego or status needs. 5. Self-actualization or self-fulfillment needs to achieve the potential within a person, in other words, to make the potential the actual (Maslow, 1968a).

Habits of Learning Themes

I classified self-reflection, seeking, and valuing feedback and collaboration as "*habits of learning"* themes. "*Habits of learning"* themes describe contributing factors for TSE development realized through teacher-initiated procedures. These factors fuel TSE development by providing input, clarity, and support for teachers as they seek to sustain and develop TSE throughout their careers. *Habits of learning* themes are the supports, rituals, and activities in which high TSE teachers engage to continue to support their own TSE. These themes took on a more refined significance when considering them in relation to career stages. "*Habits of learning"* explains the specific process teachers employ to act on information from others and from their experiences to achieve higher levels of TSE.

Super's (1983) Life-Span Life Space Theory is useful in understanding how *habits of learning themes* evolve to meet the needs of teachers seeking to promote and sustain TSE throughout their careers. While Super (1990) framed LST as a five-stage, life-long process that

begins around age four, for the purpose of this study, I focused on the final four stages (see Figure 7.1).

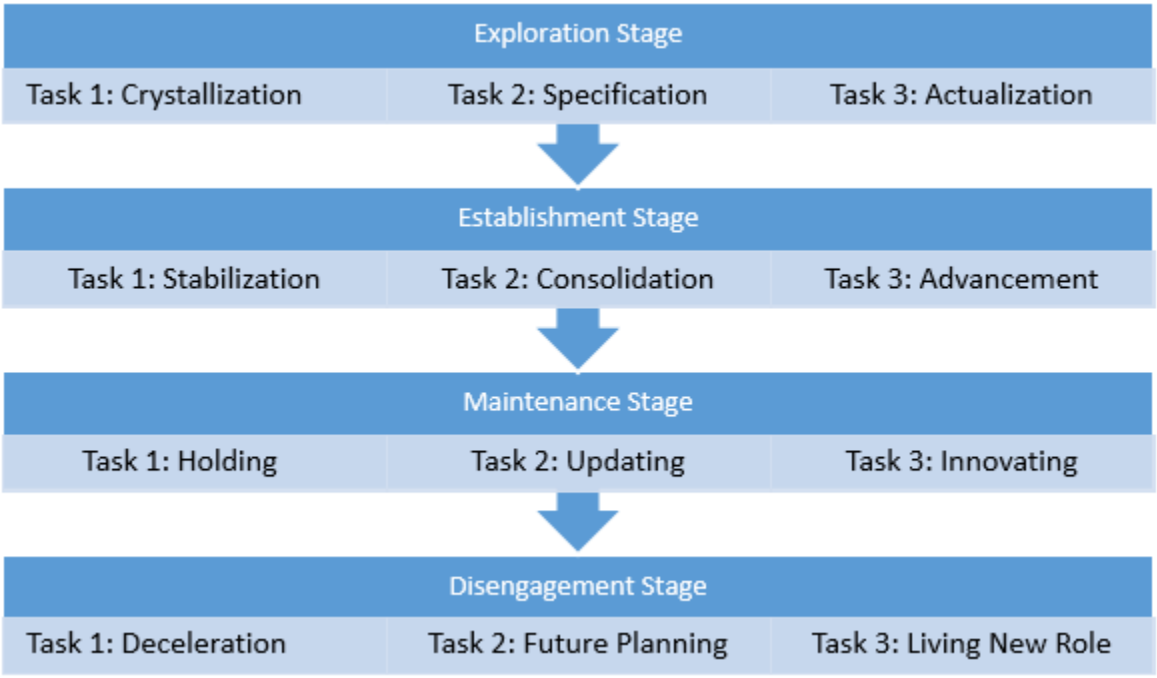


Figure 7.1. Four of Super's (1990) life-span stages and associated tasks.

Additionally, Super explained that the roles people assume inside and outside of their careers influence their career development; Super described these roles and the theatres in which they are played as life-space (Super, 1980) (see Figure 7.2). Self-concept, role-expectations, role-performance, and role-salience all contribute to the overall life-space construct of LST (Super, 1980). Self-concept is a prominent element of Super's LST theory. Self-concept refers to a person's overall sense of self, which can be heavily influenced by career identity (Super, 1990). Conversely, career identify can influence self-concept in a reciprocal relationship (Super, 1990).

Role expectations, performance, and salience all work in conjunction with one another to shape one's life-space. Culture, society, and profession can all influence behavior by placing expectations on an individual. These expectations vary depending on one's role, hence the term role-expectations (Super, 1980). Within the roles one plays, they behave in certain ways to meet or resist these expectations. Role performance describes the ways in which one behaves as measured against their role expectations (Super, 1980). Role salience is the degree to which an individual values any particular role. These components are critical to a teacher's TSE as they, in part, explain the way a teacher develops an identity related to their role as a teacher. The degree to which this identity stresses the belief in one's ability to meet the needs of all students will directly affect TSE.

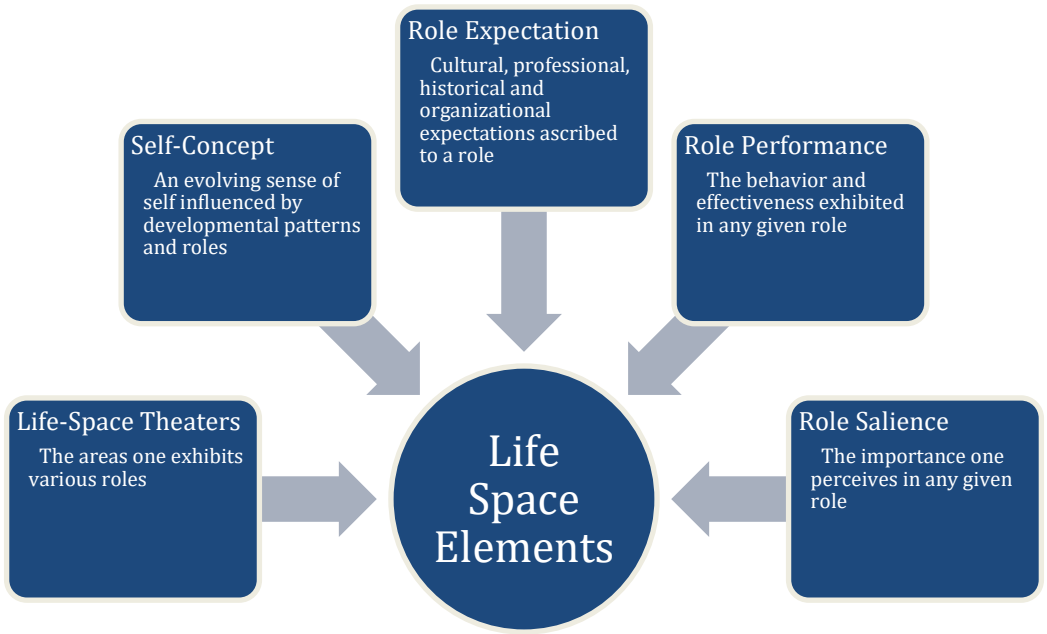


Figure 7.2. Super's (1980) life-space elements and definitions.

Self-Reflective Practices

Self-reflective practices emerged as the first of the *habits of learning themes*. I identified two different stages of self-reflective practices dependent on the level of experience of the participants. Both stages of reflection allowed teachers to modify their career path or their self-concept. LST emphasizes the role of self-concept in career development (Super & Hall, 1978). Super asserted that, in the course of building a career, people seek to align their self-concept with their career choices (Super, 1972). As teachers engage in self-reflective practices to develop TSE, they refine the alignment of their self-concept with their career choices. Sometimes teachers make adjustments by altering their career trajectory, and other times they alter their self-concept. Super refers to these changes as self-concept modifications and adjustments (Super, 1972).

Super (1990) described career development as the implementation of self-concept into one's vocation. The integration of self-concept and vocational choice is, in and of itself, a reflective endeavor. Furthermore, high TSE teachers focus intensely on student needs (Wyatt, 2015). It follows that self-reflective practices shift from a teacher focus to a student focus as teachers progress through their careers.

"Establishment," the third stage in LST, spans from approximately ages 25–44. Teachers operationalize this stage by acclimating to professional expectations and potentially seeking advancement (Super, 1980). This stage encompasses a teacher's earliest professional teaching experiences as well as the middle of a teacher's career. Super established three vocational developmental tasks in the establishment stage: stabilization, consolidation, and advancement. The first task, stabilization, describes a process of assimilating to organizational and cultural expectations (Savakis, 2002). My findings associated with teacher reflection in the early career

stages directly align with this concept of vocational stabilization. The first stage of self-reflective practices is teacher-focused reflection, which is an exercise in vocational assimilation. Teachers in this stage reflect on their own practices and compare their practices to those of other teachers, thus perpetuating a continuation of existing cultural expectations.

Teachers in the establishment stage rely on reflection to evaluate the degree to which they are meeting expectations in their schools. Kevin, for instance, reflected on his performance on specific lessons by comparing his actions with those of an esteemed colleague. Kevin measured his self-concept against the expectations he set for himself through a comparison with his colleague. LST emphasizes the importance of an individual's self-determination in this process of establishing oneself. Kevin exercised this self-determination by actively seeking opportunities to grow.

Self-Reflective practices can also allow teachers to develop a positive self-concept through the identification process. Super explained, "the translation of self-concepts into occupational terms may take place through identification with [a] role-model" (Super, 1972, p. 26). By embracing mentorship from others, teachers in the early stages of their careers can capitalize on the identification elements of LST to support their TSE by identifying with positive mentor role-models.

In later career stages, teachers shift their reflective focus to students. Teachers engaged in student-focused reflection think deeply about student needs and responses to instruction. Instead of focusing on instruction, these teachers focus on the responses of the students. For instance, John-Paul described the shift he went through when he noticed changes in the student population. Changing demographics forced a shift in his reflective practices to a more student-focused approach that sustained his TSE. LST also explicates this shift to student-focused

reflection. Super explained that professionals who gain more experience challenge their own thinking through a process of modification and refinement to meet changing professional expectations (Super, 1972). These modifications are integral elements of the LST process; likewise, reflection allows teachers to learn interpersonally from their own experiences (Jussim, Coleman, & Nassau, 1989).

Reflection serves as a tool teachers utilize to evolve their self-concept. LST holds that individuals are "continually transcending our past and present to reach the future through our moment-to-moment actions and interactions" (Sterner, 2012, 1). Reflection becomes the fuel teachers use to reconcile self-concept and life-role salience (Sterner, 2012). Joanie, for instance, recognized a shift as she reflected on her desire to reconnect with the altruistic goals that initially drew her to a career in education. Super described this process of evolution as life-role adaptability.

High TSE teachers engage in the process of life-role adaptation as they shift their reflective focus from self to students. As high TSE teachers mature throughout their careers, they gain the confidence and courage to align their role-performance as a teacher to their role-expectation as an advocate for students. Super maintained that career maturity occurs as one advances in age and accomplishes developmental tasks across one's life span (Sterner, 2012). As high TSE teachers mature in their careers, their reflections become more student-focused. Instead of focusing on self-preservation and compliance, they begin to align their actions with their perceived calling as a teacher, and as a result, are able to more effectively advocate for their students' needs (Savickas, 2011; Super, 1981). Super further illustrated the relationship between self-concept and role-expectations when he included self-efficacy as one of the elements in his description of self-concept (Sterner, 2012). Reflection is necessary as it provides the

intrapersonal fuel to energize professional growth. Feedback, on the other hand, allows teachers to learn through interpersonal processes.

Seeking and Valuing Feedback

Similar to changes in self-reflective practices, teachers changed the ways they use feedback to develop TSE as they progress through their careers. During the earliest career stages, teachers rely on feedback from authority figures. In the middle stages of their careers, teachers shifted to seeking and valuing feedback from peers. High TSE teachers in the most advanced career stage shifted their focus yet again to feedback from students. Both LST and Maslow's hierarchy of needs offer insight into the trend of seeking feedback from authority figures to peers to students. Maslow posited that once physiological needs are met, safety needs must be satisfied (1968a). Likewise, teachers in the early stages of their careers seek feedback from authority figures to satisfy their safety needs in the form of job security (Maslow, 2018; Super, 1980).

By seeking feedback from authority figures, novice teachers pursue direct feedback from people who are in a position to tell them that they are doing the right things to meet the needs of their students. By receiving assurances that they are doing the right thing, teachers develop a sense of security that not only allows them to address needs higher on the HON hierarchy, they also support their TSE. This sense of security rests on the assumption that the authority figure has a contextual understanding of the circumstances and conditions in the teacher's classroom. For example, Joanie made a point to solicit feedback from her Board of Directors when she began to question the alignment between her vision and the vision of the organization and enhanced her sense of professional security by receiving feedback that assured her of this alignment.

As teachers gained experience, they realized they could also grow professionally by seeking feedback from their peers. LST suggests that this sort of behavior aligns with the transition from the establishment stage to the maintenance stage (Super, 1980). Innovation and updating self-concept and role performance mark the transition between these stages (Sterner, 2012). Super described the maintenance stage as "re-finding, not refining" one's self-concept (Super, 2002, p. 179). In other words, this stage provided an opportunity for a teacher to decide if an organization was aligned with their self-concept, not the other way around. In the maintenance stage, professionals can either stagnate or update and innovate. High TSE teachers want to grow professionally, and therefore, they gravitate toward innovation.

High TSE teachers with moderate levels of experience innovate and update by collaborating with colleagues who challenge the cultural expectations of the school setting (Sterner, 2012). During the maintenance stage, the teacher is ready to expand her sphere of influence and work with others who challenge and inspire new ways of thinking. For instance, Loretta explained that she enhanced her TSE through feedback from colleagues when she created an informal professional network. This sort of network served as the impetus for Loretta to seek a leadership position as an interventionist. Her new position, in turn, allowed her to influence her school and district culture directly. Loretta described this point in her career as a time when she was ready to learn on her own and "put her stamp" on the way she worked with students.

Finally, the most experienced high TSE teachers seek and value feedback directly from their students. The "life-space" portion of LST explicates this shift to seeking feedback directly from students. The life-space element of LST involves the competition as well as the complement of the many roles people play in their lives. Teachers' roles and the relationships that develop throughout their careers "are manifestations of how they see their authentic selves"

(Sterner, 2012, p. 156). As teachers reach career maturity, they base their professional identity on that which they view as the critical core of their professional values. My findings support the well-established notion that high TSE teachers put their students as the core of their decision-making process (Woolfolk-Hoy, 2006). As high TSE teachers reach career maturity, they align their core purpose—students—with their feedback-gathering tendencies. For example, Dawn described this phenomenon when she said, "I don't need a lot of moral support from administrators anymore. I am here for my students, and I want to know what they need and what they think about my teaching." As teachers mature throughout their career, feedback, like reflection, becomes more student-focused.

Super originally described the final stage in LST as "decline" (1953). Later, Super (1990) re-defined this stage of the life-span portion of LST with the more positive term of "disengagement" so that it reflected a professional's potential transition to retirement. This redefined stage supports the continual nature of TSE development and the concepts of collaboration, reflection, and feedback. Super defined the final stage as disengagement to describe the process of gradually removing oneself from career-specific goals (1990).

Super's conception of the later stages of one's career evolved, especially when he reached the ages he referenced in his work (Super, 1990). Subsequent scholars further revised the conception of the final stage of LST. Chen (2011), for example, conceptualized the final stage as "re-engagement" in order to portray retirement as an opportunity to engage in new endeavors. This adjustment to Super's original LST model reflects the sentiments expressed by veteran participants in my study. All of the veteran teachers who were nearing retirement described a desire to continue to contribute to the profession in some fashion. James, for example, described re-engaging as a supervisor for student teachers. In this role, James hoped to exercise his

collaborative skills as he re-engaged in a new endeavor that aligned with his self-concept (Super, 1983). As noted earlier, developing TSE by seeking and valuing feedback requires interpersonal skills and collaboration, which is the second *habits of learning* theme (Jussim, Coleman & Nassau, 1989).

Collaboration with Colleagues

High TSE teachers relied on collaboration as a way to maintain and enhance their TSE. However, teachers engaged in collaboration in different ways, depending on their career stage. Teachers in the earliest stages of their careers built their TSE through formal structures such as mentoring and instructional coaching. Teachers in the middle stages of their careers shifted their reliance on collaboration as a support for their TSE to working with peer networks. At the most advanced career stages, high TSE teachers turned their collaborative focus to the peer coaching of other lesser experienced teachers.

As a mentee or a teacher receiving instructional coaching support, new teachers hold a specific role that is distinct from their role as teacher (Niles, Herr, & Hartung, 2001). This reliance on others as mentors aligns directly with Super's establishment stage (1980). In the establishment stage, teachers relied on others to define expectations and organizational values (Super, 1980). Teachers spent the vast majority of their day with their students, not with other colleagues, so when a teacher assumes the role of a mentee, they operate under different role-expectations related to their role-performance by working directly with colleagues instead of students. Super asserted that life-roles could be "supportive, supplementary, compensatory, or neutral" (Niles et al., 2001, p. 17). High TSE teachers viewed the interplay between the role of mentee and teacher as supportive and supplementary. They sought out mentoring opportunities

without viewing these supports as intrusive or distracting. John Paul, for instance, viewed his role as a mentee as supporting his role as a teacher:

> Well, I can remember starting off. Michael was my mentor, and when I first got going, like most teachers, I didn't have the confidence to believe I could reach every kid. Mainly because I felt like I really didn't know what I was doing. Thankfully, Michael was there to take me under his wings. He didn't judge. I embraced his support, and it helped immensely.

Teachers in the middle stages of their career shifted their collaborative focus from that of a mentee to that of a member of a larger professional-social network. According to Super (1983), the "maintenance" stage takes place from ages 45–65 and is marked by finding new challenges but not taking significant risks. Super asserted that the life-space a professional occupies is a complex network of multiple roles and recognized the importance of social networks in the shaping of self-concept (1980, 2002). Super also recognized the cultural impact of social networks in forging perceptions about careers. Teachers in the middle stages of their careers sought out opportunities to collaborate with peers in formal or informal networks in order to offer and receive emotional support and advice. This sort of collaboration met the needs defined in the maintenance stage in LST by allowing low-risk opportunities to challenge current perspectives. Peer networks are low-risk since they hold no evaluative power and do not challenge role-expectations (Sterner, 2012).

High TSE teachers forge professional networks that focus on problem-solving and positive solutions. Their networks are self-determined and personalized to the attitudes and perspectives of the teachers in each network. Through collaboration with colleagues, teachers sought to "attune [their] inner world to the outer world" (Super, 2002, p. 165) and participate in

social interactions and networks that validate their self-concept. Therefore, high TSE teachers in the middle stages of their careers create high TSE social networks to enhance their belief in their ability to meet the needs of all of their students.

The tendency to develop professional networks to fulfill the collaborative need aligned with another key concept in the establishment stage of LST – unique skill development. Teachers in the establishment stage sought opportunities to develop unique skills that increase their stability in their organization (Super, 1990). Professional networks served as ideal spaces in which to develop new unique and useful skills. Barbara, for instance, discussed the way she coped with the demands of a prescriptive curriculum that challenged her autonomy: by forging interest-based professional networks, she was able to hone in on unique skills that complemented the district expectations. Barbara also embraced social networks such as Twitter to broaden her influence and access diverse perspectives on pedagogy. As an establishment stage teacher, Barbara developed her TSE by developing collaborative professional networks through which she solidified her professional standing, developed unique skills, and aligned her practices to her self-concept (Sterner, 2012; Super, 1990).

During the later stage of their careers, teachers go through a pronounced shift in their collaborative efforts to support TSE: experienced teachers often serve as peer coaches for others. Life-role salience describes the importance one places on any particular life-role (Niles et al., 2001). As their life-role as a leader gains salience, experienced, high TSE teachers shift their collaborative role to one that is more influential. In the LST model, a role refers to behaviors, not a specified position (Niles, Herr & Hartung, 2001; Super, 1990). By altering their behaviors and becoming leaders in collaborative opportunities, high TSE teachers engage in “role-adaptability” to effectively support their own TSE (Super, 1990). Some high TSE teachers seek formal

opportunities to lead their colleagues, such as pursuing coaching positions or serving as mentors, while others work informally with their professional learning communities or curriculum teams.

LST asserts that teachers in the maintenance stage can take a growth-based or stagnant approach to their career development (Super, 2002). Teachers tend to maintain their careers through three distinct approaches – holding, updating, and innovating. Holding describes the process of simply maintaining existing skills. Updating describes the process of striving to learn new skills to stay current. Innovating describes the process of breaking new ground with the self-confidence of a stable professional who no longer needs to prove herself (Super, 2002).

High TSE veteran teachers approached this phase by innovating. They manifested this innovation through the leadership of others. Super noted that innovation could lead to an altered career path by opening up new leadership roles previously unconsidered (Herr, 1997; Super, 2002). Loretta, Carol, and Elizabeth, for example, all found formal leadership opportunities when they were recruited for new positions based on their collaborative leadership skills. Other high TSE teachers were content to remain in the classroom but still require collaborative leadership opportunities to feed their TSE. For example, Lacey found supporting her grade level teammates fed her TSE. She established weekly gatherings with her team beyond madndated meetings in order to learn from one another. She described the process of working with young, energetic teachers as highly supportive of her TSE. Collaboration followed a different trend than the other two *habits of learning themes* of reflection and feedback. Instead of evolving toward a more student-focused approach, collaboration tends to focus on an expanded sphere of influence.

Summary of Habits of Learning Themes

High TSE teachers perceived their choice to become a teacher as a calling. They predicated their self-concept on this calling to serve students. As they progressed through their careers, teachers used reflection, feedback, and collaboration to serve this calling and to build and sustain TSE. As a result, self-reflection, feedback, and collaboration all shifted from focusing on the self to focusing on students. These *habits of learning themes* provide the energy and mechanisms for sustaining and growing TSE throughout a career. Just as a traveler cannot simply fuel up their vehicle, blindly hit the road, and expect to reach his desired location, teachers on quests to develop TSE throughout their career require a clear focus on a destination. In the next section, I used Maslow's HON to analyze the themes of commitment to inclusive practices and prioritizing student relationships, which I have grouped as "focus on student" themes. As teachers progress through their careers, both of these themes are, like collaboration, characterized by a shift toward expanding influence.

Focus on Student Themes

Teachers with high levels of TSE maintained a focus on the needs of their students. Indeed, the very definition of TSE is a teacher's belief in her ability to meet the needs of her students regardless of the challenges any student may present. This belief required a laser-like *focus on students* that resists erosion by extraneous circumstances. As teachers progressed through their careers, they became more skilled at refining their focus on students and filtering out distractions. I classified the themes of a commitment to inclusive practices and prioritizing student relationships as "influence" themes. For my analysis of these two *focus on student* themes, I relied on Maslow's theory of human motivation, known as the hierarchy of needs (Baslevent & Kiramanoglu, 2012; Gawel, 1997; Koltko-Rvera, 2006). Maslow based his HON

on the premise that human needs directly motivate human behavior. Maslow arranged human needs in a hierarchy in which lower-level needs must at least be partially met before one can access the motivational power of the higher levels (Maslow, 2018) (see Figure 7.3).

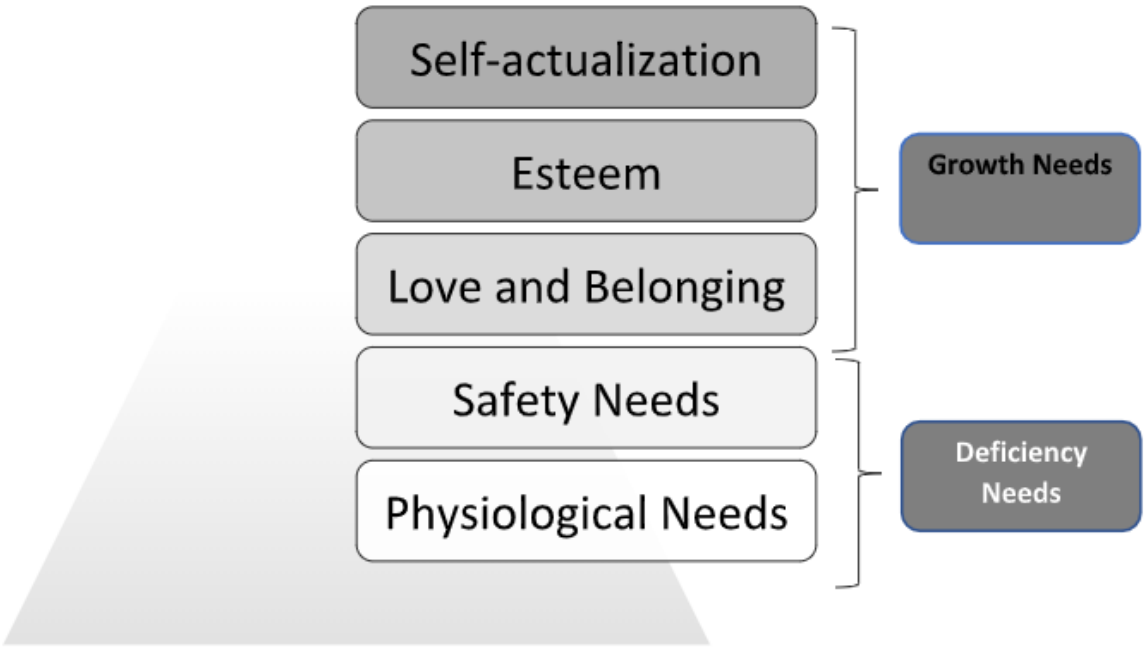


Figure 7.3. Maslow's hierarchy of needs (2018).

Interestingly, HON shares a theoretical element with LST. Both theories include the concept of self-actualization as one of the most advanced stages in their theoretical structures (Maslow, 1968b; Super, 1980). Super approached the concept of self-actualization from the perspective of life-space roles, suggesting, "Self-actualization can be achieved in varying combinations of roles" (1980, p. 296), including career-based roles. Maslow's conceptualized self-actualization as one of the pinnacle needs driving human behavior (Maslow, 1968a). LST and HON complement each other and allowed for a fuller analysis of my findings related to TSE development by career stage.

Maslow (1968a) based HON on the premise that human needs motivate behaviors. Here, I applied Maslow's assertion that motivation underpins human behavior to illuminate patterns in

TSE development throughout teachers' careers. For teachers, motivation is one of four essential dimensions through which TSE influences practice (Bowles & Pearman, 2017). Motivation offers justification for beliefs and values, such as the belief a teacher has in her abilities (Skaalvik & Skaalvik, 2007). Motivation directly influences a teacher's access to mastery experiences. Motivation can spur a teacher to engage in a potential mastery experience. In turn, a mastery experience can become motivational in its own right (Bowles & Pearman, 2017).

Teachers accessed higher-level needs through their dedicated focus on students. Both a commitment to inclusive practices and developing strong relationships with students allowed teachers to meet the needs they face throughout their careers. As high TSE teachers developed throughout their careers, their focus became less about themselves and more about their students. This shift allowed these teachers to access needs up to and including self-actualization. In the following sections, I analyzed these shifts in the two focus on student themes.

Commitment to Inclusive Practices

My data suggested teachers at all stages in their careers support their TSE development through a commitment to inclusive practices for their students, but the ways teachers manifested this commitment to inclusion shifted as they progressed through their careers. In the early career stages, teachers focused on individually implementing inclusive practices with their students. As high TSE teachers progressed through their careers, they expanded their commitment to inclusive practices to include advocating for systemic inclusion in their school or district.

Eight of the 13 participants with less than 15 years of experience described inclusive practices as contributing to their TSE. These eight participants did not discuss advocating for systemic inclusion, and they found their immediate needs met at the safety level of HON.

Advocating for systemic inclusion may actually mitigate the level to which inclusive practices meet the needs of novice teachers. Joanie offered insight into this dynamic. She discussed the importance she placed on inclusive practices with a special focus on students with behavioral challenges. She recognized the organization for which she worked was not ready to incorporate some of the practices she valued. Instead of advocating vocally, she simply maintained her focus on inclusion in her own classroom. When she pushed gently for reform, leaders in her organization pushed back. She was not willing to risk her employment security to move to a position of advocacy. Joanie's experience reflected Maslow's idea that at the lower levels of HON, people seek known experiences where they possess a sense of control. People "seek safety and stability in the world. . . in the very common preference for familiar rather than unfamiliar things, or for the known rather than the unknown" (Maslow, 2012 p.12). Advocating outside the confines of one's classroom propels teachers into the unknown. If they have not satisfied their needs at the safety level of HON, they are not likely to gravitate to the higher levels in the hierarchy (Maslow, 1968a).

Maslow's HON offers insight into the trend of shifting from simply implementing inclusive practices to advocating for systemic inclusive practices. Novice teachers tend to focus on meeting the expectations of their principal, parents of their students, and other authority figures to satisfy their safety needs. As discussed earlier, security in employment is one of the realms in which people seek safety (Maslow, 2018). Additionally, teachers in the establishment phase of LST focus their energies on assimilating into the existing professional culture, demonstrating compliance-based effectiveness, and working well with colleagues (Super, 1990). In other words, teachers may feel intimidated by the prospect of advocating for systemic change;

at this stage in their career, assimilation with existing cultural norms and working to attain job security is developmentally appropriate (Super, 1980).

Once teachers have fulfilled their safety needs within a school, meaning they feel they have attained competence and job security, they may begin to shift their inclusive focus to include advocating for system-wide inclusive practices. This shift is additive: teachers who focus on larger-scale advocacy do not cease from engaging in inclusive classroom teaching practices. As teachers progress through their careers, they may also progress through the stages of HON. Once teachers felt secure in their professional setting, they sought love and belonging, esteem, and self-actualization (Maslow, 1968a).

Teachers pursued love and belonging through their maintenance of strong relationships with students or through strong collaborative relationships with colleagues. Veteran, high TSE teachers found their need for esteem met through the status and recognition gained as a result of their advocacy for systemic inclusive practices (Maslow, 2018). For instance, Lacey described how she bolstered her TSE by expanding her professional learning community's capacity for inclusive instruction when she realized she had emerged as a valued leader.

Finally, self-actualization refers to the process of individuals living up to their potential (Maslow, 2018). Self-actualization can illuminate high TSE veteran teachers' desire to take on leadership roles as they advocate for inclusion. Thorton, Privette, and Bundrick (1999) established a link between leadership and self-actualization, and my findings illustrated this link in the context of TSE development. When teachers sought to expand their influence related to inclusive practices through specific leadership strategies, they were naturally moving toward their latent potential.

Although my data represented a general trend toward TSE-building through large-scale inclusion efforts among veteran teachers, this was not the case for all. For some highly experienced teachers, advocacy and influence did not drive their TSE development. Three veteran teachers found changes in their professional settings to be challenging to their safety and security needs. These teachers felt their autonomy was being limited, and their supervisors to be micromanagers. This micromanagement generated instability and fear. In an analysis of HON, researchers found that "the lower needs are more powerful or 'prepotent' than the higher needs. The more these basic needs were satisfied, the better would be the psychological needs of the individual" (Lester, 2013). Instead of climbing to the higher levels of HON, fear and insecurity stifled these veteran teachers' development. Most high TSE veteran teachers, however, felt the need to expand their influence and provide leadership that led to more systemic inclusion in their schools and districts.

Başlavent and Kirmanoğlu (2012) explored the universal applicability of HON and found that basic needs tended to trump higher-order needs in the workplace. This relationship directly aligns with the tendency for veteran teachers who feel their autonomy and professional safety challenged to revert to the safety and security level of HON (Maslow, 1968b). Başlavent and Kirmanoğlu (2012) also compared "basic personal values" across two continuums with job attributes. The first continuum they studied describes a desire to face challenges and think independently instead of acting obediently. The second continuum they explored describes a desire to care versus a desire to control. Certain careers have particular attributes that allow individuals to access their needs in accordance with HON (Başlavent & Kirmanoğlu, 2012; Maslow, 1968a).

Based on my evidence, I posited that the teachers in my study desired to think independently and to care for others, and therefore sought a teaching career because they felt they could meet these personal needs through their careers. In other words, they believed that their career as a teacher could help them self-actualize. High TSE, veteran teachers all described their choice to become a teacher as a calling or a moral imperative, suggesting that people who feed their psychological needs by autonomously serving others may gravitate toward teaching (Maslow, 1968b; Super, 1980). My analysis suggests teachers access the TSE-enhancing power of inclusive practices by meeting their psychological needs in the highest levels of Maslow's HON (Maslow, 2018). One way they increase their impact (and move toward self-actualization) is by advocating for system-wide inclusion.

The relationship between career stage and the meeting of needs on HON is not a clean linear function. Maslow places the role of prepotency at the center of the HON theory (Maslow, 1968a). Prepotency describes the way one must at least partially meet the needs in one level of the hierarchy before addressing the needs at a higher level. Maslow later refined HON to show that it is not a rigid structure, and people can move somewhat fluidly through the levels of the hierarchy depending on circumstances (Maslow, 2018). Participants in my study explained just such a phenomenon when describing the ways they supported their TSE with inclusive practices. Thomas, for example, described his work advocating for co-teaching as a means to increase inclusive practices. He met some resistance and returned to simply teaching in the most inclusive manner possible. He did not feel the advocacy role was helping to meet his needs, so he retreated to a lower level on HON (Maslow, 1968a).

In a 1997 study, Gawel examined HON and another widely used motivation model to, in part, determine the applicability of HON to education. According to data from this study,

teachers across career stages were less satisfied at the esteem level of the hierarchy than at the self-actualization level. Gawel's (1997) findings suggest that esteem was not necessary, or prepotent, for teachers to meet their needs through self-actualization. This phenomenon helps explain how some high TSE veteran teachers never feel the need to advocate or lead outside of their classroom. Maria, for instance, described fulfilling her mission as a teacher without ever having to serve on a leadership committee or worry about what other teachers in the district were doing.

In this section, I analyzed the evolution of commitment to inclusive practices theme through the career stages. I explained that Maslow's (1968) HON can explicate the transition from a compliance-based and isolated approach to employing inclusive practices to a more innovative and courageous stance of advocacy of system-wide inclusion. In the next section, I analyzed the final theme of prioritizing student relationships using HON. A similar shift toward expanded influence also characterized this theme. The shift, however, is less focused on systems and more focused on empowering individual students.

Prioritizing Student Relationships

High TSE teachers relied on student relationships to sustain their TSE. These teachers prioritize their relationship with their students from their pre-service years through retirement. Teachers in the early stages of their careers depended on developing friend-based relationships with their students to develop their TSE. As they progressed to the mid-career stages, teachers focused on building a sense of classroom community which allowed students to build pro-social relationships with one another. High TSE teachers with the most experience shifted their focus to building the self-efficacy of their students.

Teachers new to the profession prioritized establishing friendships with their students by getting to know their students personally and allowing their students to get to know them on a personal level. This form of prioritizing student relationships directly fulfilled a novice teacher's love and belonging needs (Maslow, 2018). At the same time, teachers support their students' love and belonging needs by developing these relationships (Maslow, 2018). For instance, Kevin spoke of the importance of truly liking his students. He believed if he truly liked his students, they would more likely care about him, and the overall learning experience would benefit. In two inventories used to evaluate HON, researchers established support for the idea of friendship as an indicator of the love and belonging level of HON (Lester, 2013). Items pertaining to the love and belonging level specifically ask questions about friendship and sharing personal information (Lester, 2013).

High TSE teachers in the mid-career stage demonstrated a tendency to prioritize student relationships by developing classroom communities in which students can freely make academic and social-emotional choices. Maslow (1968) stressed the fact that love needs are not necessarily romantic in nature; rather, these needs are about belonging. A strong classroom community contributes to a sense of belonging for the students and the teacher (Charney, 2015). Once again, as teachers developed their TSE by creating strong relationships with students, both the teacher and the students found the opportunity to satisfy their needs—in this case, love and belonging needs.

Esteem needs also related to a sense of connection. Maslow said, "Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability, and adequacy of being useful and necessary in the world. But thwarting of these needs produces feelings of inferiority, of weakness, and of helplessness" (Maslow, 1968a, p. 370). Scholars advancing

Maslow's work found classroom community generates responsibility and supports the community (Luo, Zhang, & Qi, 2017). These researchers operationalized classroom community as "comprising two different dimensions: sense of membership and sense of influence" (Luo, Zhang & Qi, 2017, p. 154). Hence, high TSE teachers who developed a classroom community were satisfying their esteem needs while feeding their desire to positively influence others. For example, Lacey described setting up her classroom so students, regardless of their personal challenges, could be successful. She began every day with a morning meeting designed to develop a sense of community and to have students practice pro-social behavior skills. Lacey encouraged her team to develop similar classroom communities. In this way, her students benefitted from a positive classroom environment, and she benefitted from influencing others.

High TSE veteran teachers shift their student relationship focus to a different goal: increasing the self-efficacy of their students. For the purpose of this analysis, I incorporated Csikszentmihaly's (1997) flow theory with HON. Flow describes a state of consciousness that raises awareness and eliminates distractions (Csikszentmihaly, 1997). Although flow theory is compelling in its own right, it offers an interesting refinement to HON that helps explain some specific aspects of TSE development. Both Csikszentmihaly and Maslow relied heavily on the concept of peak experiences (Csikszentmihaly, 1997; Koltko-Rivera, 2006). Csikszentmihaly used the concept of peak experiences to describe activities and experiences that allow a person to get in a state of flow, while Maslow (2018) used peak experience to describe an element of self-actualization. Like Csikszentmihaly, Maslow's concept of peak experience includes a sense of loss of time and space, along with a feeling of harmony (Csikszentmihaly, 1997; Koltko-Rivera, 2006).

Knowing one is positively impacting others contributed to participants' peak experiences (Eisenberger, Jones, Stinglhamber, Shanock, & Randall, 2005). In other words, the very fact that teachers knew they were empowering their students led to the teacher enjoying a TSE-supportive peak experience. For example, Thomas described his experiences with one-on-one student sessions engaged in the "small victory" work as peak experiences. Thomas found himself in a state of flow where he responded naturally to students, seemingly identifying exactly what they needed at exactly the right time. He explained that his job was to identify the barriers that made students feel incapable. Once he identified these barriers, he created individual plans for students with collaboratively established goals. He found most of his students responded well to this process and noted that it was one of the most rewarding aspects of his career.

In his later work, Maslow identified a level in HON beyond self-actualization: self-transcendence. Self-actualization is about becoming all one can be while self-transcendence "seeks to further a cause beyond self" (Kolotko-Rivera, 2006, p. 303). This is exactly what high TSE veteran teachers did when they set out to build the self-efficacy of their students. Teachers with autotelic personalities sought challenge without prompting from others (Eisenberger et al., 2005). My research suggests high TSE teachers tend to have autotelic personalities, which create a disposition for seeking peak experiences and engaging in the TSE development cycle.

In this section, I analyzed the focus on student themes using Maslow's (1968) HON. High TSE teachers shifted their focus from themselves to their students and aligned their practices more directly to their values that originally attracted them to careers as teachers. As these high TSE teachers ascended the HON meeting their needs along the way, their relationship with the inclusion and student relationship themes evolved. They supported their TSE by serving others and refining their focus on all students.

In the next chapter, I synthesized my analysis and proposed a theory to explain the process through which teachers develop TSE throughout their careers. I then applied the tenets of this theory delineated recommendations for further research and suggestions for those with a vested interest in TSE.

CHAPTER 8: CONCLUSIONS AND DISCUSSION

This study focused on the ways teachers developed and sustained their TSE throughout their careers. Because TSE is an internal perceptual construct, teachers themselves have the primary responsibility in their TSE development. Nonetheless, we cannot expect teachers to reach their fullest potential without support. The results of the study have implications not only for teachers but also for teacher preparation programs, principals, school district administrators, and educational policymakers. I offer the following model as a theoretical guide to stakeholders aspiring to support TSE development of themselves or the teachers with whom they work.

Career Stage Teacher Self-Efficacy Model

The Career Stage Teacher Self-Efficacy (CTSE) model emerged as the grounded theory from this study. The CTSE model explains the ways teachers develop TSE throughout their careers (see Figure 8.1). The data from this study suggested two domains in which teachers develop TSE through their careers. These two domains — focus and influence — define the way teachers manifest the five themes in this study as they progress through their careers. The focus and influence domains serve as the cornerstones of the CTSE model.

Focus Domain. The first domain of focus describes the way teachers refine their laser-like focus on students as they develop TSE throughout their careers. At earlier career stages, teachers develop TSE through adult interactions. As teachers gain experience, the factors that contribute to TSE shift to student interactions. For example, teachers at all experience levels gain TSE by seeking and valuing feedback. At the earliest career stages, teachers seek feedback from authority figures who provide evaluative feedback and serve as the expert in the professional relationship. In the mid-career stages, teachers shift their pursuit of feedback from authority figures to peers in a more reciprocal and democratic exchange. At the most advanced career

stages, high TSE teachers seek feedback directly from their students. As teachers gain experience, their sources for feedback become more and more focused on students. This trend remained consistent for all five themes.

The focus domain begins with a general focus on self and narrows toward a laser-like focus on individual students at the most advanced stage. The focus domain provides a consistent student-centered target for the instructional practices and priorities. By striving to prioritize more inclusive practices and to build meaningful and transformative relationships with students, high TSE teachers can refine their practice by narrowing their focus to the specific needs of individual students.

Focus Vignette. The following vignette offers insight into the way one participant's focus on students evolved throughout his career. Thomas was a middle school math and science teacher. He described himself as always being student-focused and putting the needs of his students before those of the adults in the school.

As a novice teacher, Thomas found himself drawn to students who had significant challenges. Special education teachers often placed students with disabilities in his classroom because they believed his accepting personality and efforts to include all students in the learning experience would be beneficial. Thomas enjoyed the challenge of creating learning experiences that were inclusive, allowing all students to find challenge and to learn. He modified many of his lessons "on-the-fly" informed by student performance and challenges.

As Thomas progressed through his career, his focus on inclusion led him to explore concepts of Universal Design for Learning (UDL), a framework that allows for the proactive design of learning experiences to be as inclusive as possible (Villa & Thousand, 2017). His focus

on UDL allowed him to shift from an on-the-fly response to one that is deliberately designed to meet the needs of each student.

Most recently, Thomas has moved into an advocacy role regarding inclusion. Thomas was instrumental in the de-tracking of middle school math in his school. Previously, students were placed in three or four separate math courses upon entering sixth grade. The placement was based on assessment results and teacher recommendation. Once students were on a particular track, it was exceedingly difficult to alter their math trajectory throughout the remainder of their secondary educational experience. Thomas worked as part of a curriculum team that recommended a change to two math courses with a much wider range of students based on achievement. This advocacy resulted in a more inclusive environment in which teachers need to alter their instruction to meet the needs of all of their students in a much more student-focused manner.

Thomas's approach to developing student relationships has also evolved into a more student-focused paradigm. Thomas began his career as many teachers do. He wanted to be liked by his students. As he gained experience, he came to realize he could improve the learning environment by changing his focus from his friendships with students to an approach that allowed for the development of classroom community where the relationships between and among all class members were placed at a premium.

In the past few years, Thomas found the most direct and profound path to the development of his TSE is through focusing on the development of the self-efficacy of his students. Thomas came to realize that he can leverage his strong relationships and classroom community to expect more from his students and build their confidence so they can realize their own agency in the learning process. Thomas found he felt most efficacious when he empowered

his students to believe in their own capacity to succeed. This shift from friend to advocate illustrates the increased focus on student needs throughout a high TSE teacher's career.

Influence Domain. The influence domain, conversely, *expands* as teachers gain experience. As high TSE teachers gain experience, they develop a desire to expand their influence to a broader audience. At earlier career stages, teachers seek influence from others to foster their TSE. At later career stages, teachers develop TSE by *influencing* others.

For instance, teachers at all career stages gain TSE through their prioritization of student relationships. However, teachers at early career stages simply frame these relationships in terms of friendships in a rather limited fashion. While in the mid-career stages, teachers focus their relationship building on the development of classroom communities thus influencing the entire classroom environment. Veteran teachers experience a significant shift in the way student relationships support their TSE. High TSE teachers at this stage turn their focus on leveraging their relationships and classroom community to foster the self-efficacy of their students. In doing so, they expand their influence by directly empowering students.

Experienced teachers face a decision point related to influence. Not all teachers continue to strive for expanded influence to support their TSE. These teachers, instead operate in the focus domain focusing more intensely on individual students. In fact, teachers at this point may develop an aversion to formal expanded influence as they fear it may divide their energies and mitigate their focus on students.

Teachers who do seek to develop TSE in the influence domain can tap into the TSE supporting power of collective efficacy. High TSE teachers activate collective-efficacy once

they move beyond influencing immediate colleagues. As teachers expand their influence throughout the course their career, they can influence teachers in their school, district, or the profession at large.

Influence Vignette. The following vignette explains the way high TSE teachers harness the power of expanding influence to sustain TSE. As a novice teacher, Maria turned to Twitter to generate ideas she could bring to the classroom to invigorate her learning environment. She found a select few prolific Tweeters who offered suggestions from research and from the field. These ideas came from leaders Maria came to value and trust. She occasionally would share ideas she garnered from Twitter with her close teacher friends and teammates.

As Maria gained more teaching experience, she decided to step outside of her comfort zone and become an active participant in live Twitter events about teacher leadership. She frequently joined in #edchat and #satchat Twitter events. At first, she participated by nibbling around the outside of the conversation, jumping in when she felt particularly confident about the topic currently on the table. When Twitter users from other areas of the country, or even from other countries, acknowledged her contribution, she felt her sphere of influence expand ever so slightly. This expanding sense of influence generated TSE and inspired deeper use of social media platforms as a way to learn and to influence. She found herself participating in chats about topics less germane to practical applications in the classroom – an area she felt quite confident– and joining chats about topics concerning the health of the teaching profession such as professional development, politics of education, and teacher compensation. These topics offered opportunities to influence others and share her beliefs with a broad and similarly interested audience.

Most recently, Maria began hosting her own Twitter chats and inviting teachers from her own district and teachers she knew in other districts. She refocused these chats on topics related to practical classroom applications. Her influence, however, was emboldened as she planned these chats and served as the de facto moderator. This influence has continued to foster her TSE as she has discovered in herself a capacity for leadership she had previously not realized existed.

This is not to suggest that all teachers must reach the pinnacle of both domains. Instead, CTSE can serve as a guide to help teachers seeking a TSE development pathway. I intentionally placed the focus theme in a predominant position in the model as my research suggests the progression toward a focus on individual students in more salient than the drive to expand influence.

The CTSE model also suggests an interplay among the themes. The focus on student themes essentially influence the *habits of learning* themes at the advanced stage. The *focus on student* themes, by definition, require a focus on student needs. As teachers progress through their careers, this focus becomes refined. These two themes then impact the *habits of learning* themes at the advanced stage by shifting the reflection, feedback, and collaboration focus to students. Essentially, in the advanced stage, *all themes* are *focus on student* themes.

A critical element of this model is that the concepts of focus and influence apply to all five themes. Some teachers support their TSE as they progress through their careers by increasing focus while others do so by expanding their influence. My findings suggested teachers often access *both* the focus and influence domain on their journey toward TSE development. The path they choose depends both on the themes they access and their own personal preferences. Generally speaking, the *habits of learning* themes provide the fuel to progress through the CTSE model while the *focus on students* themes provide the theoretical ideals for which to strive.

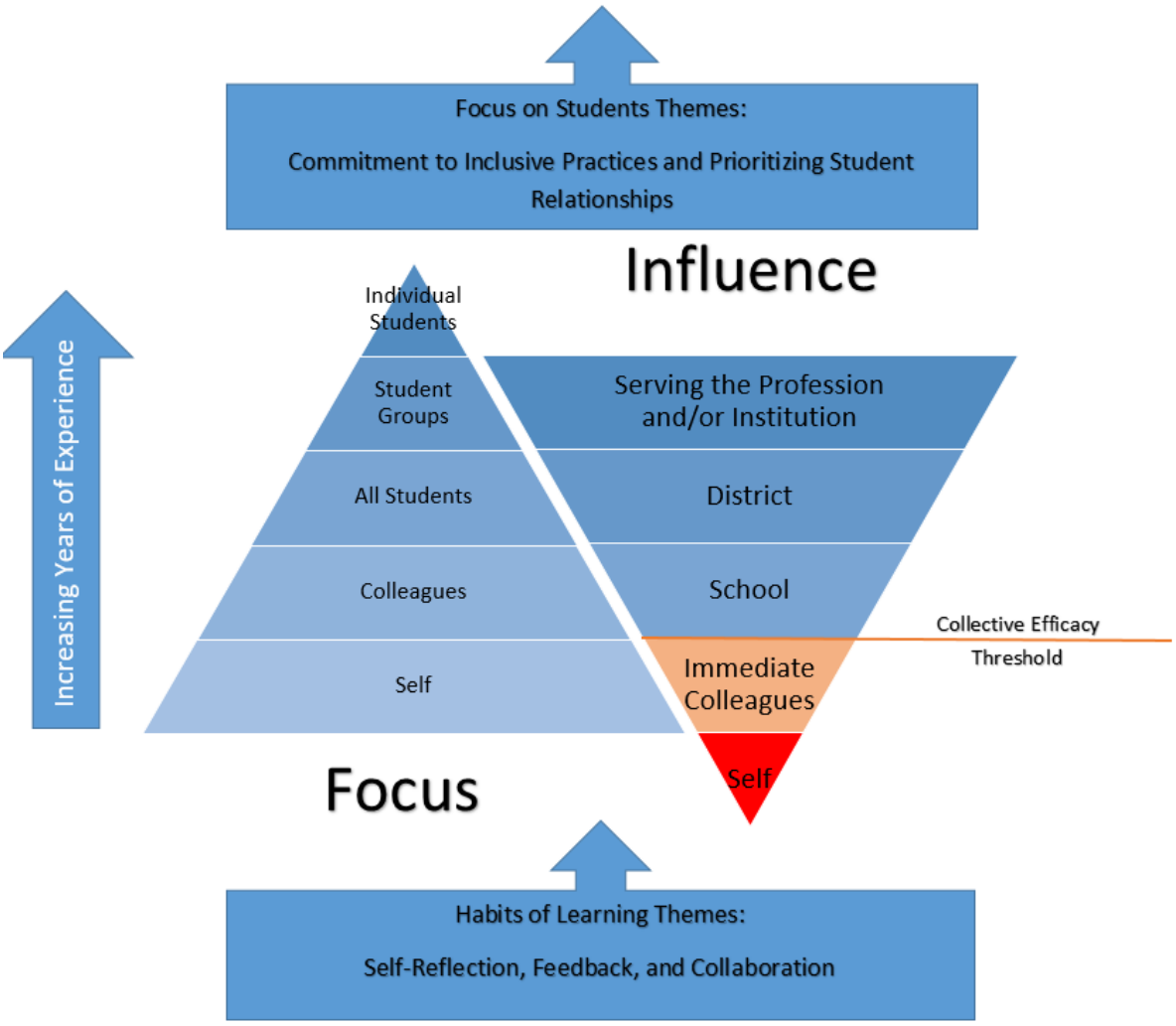


Figure 8.1. The grounded theory model of Career Stage Teacher Self-Efficacy (CTSE).

I established the CTSE model to explain the evolution of the application of the five themes in my study that describe the ways teachers at all career stages developed and maintained their TSE. The model suggests teachers at the earliest career stage (the bottom of the diagram) must first possess a desire to influence at least themselves, as suggested in the offset red section of the influence pyramid. By seeking feedback and reflecting on their impact, teachers influence their own professional growth. With that assumption met, teachers can progress through the focus domain and the influence domain as they gain experience.

In the following table, I provided examples of how one could apply the concepts in the CTSE model to develop TSE in oneself or others. The CTSE model offers practical applications to support teachers in their efforts to develop and sustain TSE. One can identify the opportunities to enhance TSE development by identifying whether the limiter exists in the focus or influence domain. One can then intervene by creating opportunities to overcome the limitation. Interventions would either help a teacher increase their focus, expand their influence, or both.

To take the next step in their TSE development journey, teachers must individually or collaboratively reflect to determine if they lack a focus on students or influence on others. Once they identify the lacking element, they must identify the specific theme that most directly offers opportunities for growth (see Table 8.1).

CTSE Application Examples

Scenario: How is the teacher's TSE limited?	Limiter (Focus on student or Influence)	Identified Theme	Intervention
A new teacher who struggles to be responsive to student needs and simply goes through the motions of delivering the curriculum as specified in the curriculum map.	Focus	Self-Reflection	Work with an instructional coach to develop a student-centered reflection protocol focused on just one student to enable the teacher to demonstrably see impact of instructional refinement.
A mid-career teacher who struggles to maintain TSE when she receives critical feedback.	Influence	Feedback and Collaboration	Find a trusted colleague and practice receiving and offering critical feedback. Ensure the offering of critical feedback is reinforced as an opportunity to exert influence.
A veteran teacher who is "checking out" and no longer working responsively to meet the needs of students with behavior issues. This teacher may be demonstrating the precursors of burnout.	Influence & Focus	Inclusion	Invite the teacher to serve on a committee focused on increasing inclusive practices and coach the teacher to work with colleagues who may inspire.

Table 8.1: Examples of CTSE Application

Each of the stakeholder groups I discuss in the following section could use the CTSE model to support TSE development of the teacher(s) with whom they work. The CTSE model

suggests implications for teachers, teacher preparation programs, principals, school district administrators, and educational policymakers. Each of these stakeholder groups may also find practical applications from the CTSE model to increase their impact on positively influencing TSE.

Teachers

As my findings and analysis demonstrated, human agency plays a crucial role in the process of developing TSE. Therefore, this study holds several implications for teachers, as *they* possess the greatest potential to impact their own TSE. The findings that most directly offer implications for teachers relate to the *habits of learning themes* of self-reflective practices, seeking and valuing feedback, and collaboration with colleagues.

First, teachers may want to consider their self-reflective practices because self-reflective practices serve teachers in incredibly personal and, in some cases, instinctual ways. This research may inform choices teachers make as they develop their self-reflective habits. My findings suggest some teachers engage in more formal self-reflective practices than other teachers do. As described in Chapter 5, self-reflective practices can be formal or casual. Teachers may benefit from developing a metacognitive understanding of their reflective tendencies. If teachers can *reflect* on their own reflective tendencies, they are more likely going to be able to access the TSE development support of the CTSE model. This study may also help teachers better understand their reflective practices at various stages in their careers. As teachers progress through their careers, their reflective needs and habits tend to evolve from a self-focused approach to a student-focused approach (Marcos, Mena, Sanchez, & Harm, 2006). Teachers may benefit from considering the ways their own reflective practices have evolved or need to evolve to increase their TSE.

Second, my findings hold implications for the ways teachers understand and seek interpersonal feedback. Teachers with high TSE consistently value and seek feedback. The patterns related to feedback, however, shift throughout a teacher's career. Although my research is too limited in scope to assert sweeping generalizations, teachers at various career stages may benefit from understanding the general trend in feedback preferences, from the tendency for new teachers to seek feedback from their supervisors to veteran teachers who seek feedback directly from their students. It may behoove teachers to explore ways to diversify the feedback they receive to find the source that most directly serves to meet their TSE development needs.Just as veteran teachers value the feedback they receive from students, teachers across all career stages find the building of authentic relationships with students supportive of their TSE.

Third, this study shows that high TSE teachers not only valued relationships with students, but they believed developing these relationships directly fostered their TSE. For this reason, teachers may find value in considering the nexus between their TSE and their perspective on student relationships. Although some teachers possess predispositions toward building positive student relationships, specific strategies and practices can improve any teacher's ability to build strong student relationships (Ang, Chong, Huan, Quek, & Yeo, 2008). Teachers with interest in increasing their TSE may benefit from exploring the types of relationship-building strategies and practices discussed in this study. Specifically, focusing their relationships on the development of student self-efficacy may propel teachers toward the most advanced stage of student-teacher relationships as a TSE contributor.

Additionally my findings suggest some teachers may benefit from leadership opportunities outside of the classroom. Leadership can provide an avenue for expanding influence. Positions such as instructional coach or curriculum specialist may offer opportunities

for teachers whose TSE is highly supported by expanded influence. These teachers may find these opportunities more rewarding than informal leadership opportunities accessed in the classroom. As my findings suggest, TSE development is not in the sole purview of individual teachers. Support systems for teachers, even in the pre-service period, may benefit from the findings in this study.

Teacher Preparation Programs

This study primarily examined teachers' TSE development throughout various career stages. My findings suggested differences in the ways teachers develop TSE depending on their career stage. Accordingly, there are significant implications related to teacher preparation programs whose developers are interested in supporting the development of TSE of pre-service and novice teachers. TSE tends to be relatively high during pre-service years and then decreases during the first year of employment (Clark & Newberry, 2019). To counteract this trend, teacher preparation programs should present strategies that support TSE during preservice and maintain TSE during the first few years of teaching.

Teacher preparation program developers should consider ways they help new teachers navigate the bridge between pre-service teaching and the first few years in the field. Burnout creates a tremendous strain on the wellbeing of new teachers. Researchers have identified TSE as a mitigator of burnout (Skaalvik & Skaalvik, 2007). Pre-service teacher programs occupy a professional space that is uniquely situated to prepare teacher candidates for the challenges that lie ahead. TSE development should be included on the list of the many challenges faced by novice teachers. This study's findings, particularly those related to feedback, may be particularly instructive as pre-service teacher program leaders develop training focused on TSE development and maintenance. For instance, pre-service teacher programs could use the CTSE model to help

aspiring teachers understand the typical TSE development process. It would be helpful for leaders in pre-service programs to brace aspiring teachers for the likely attack on their TSE they will experience when faced with the realities of the profession. New teachers who are prepared for a slight early erosion of the TSE are more likely to find solace knowing the research suggests their TSE will rebound positively.

Teacher preparation program developers may also find value in the study's findings related to inclusive practices. Confidence in inclusive practices can help bolster novice teachers' TSE since experts have defined TSE as the belief a teacher has in their ability to meet the needs of *all* students (Tschannen-Moran, 2011). Leaders of teacher preparation programs could consider the evolution of inclusive practices throughout a teaching career explored in this study. As my findings suggest, teachers approach inclusion more strategically as they move from one career stage to the next. High TSE teachers all valued inclusive practices, but more experienced high TSE teachers employed specific teaching strategies to increase their inclusive practices. This study may provide guidance as to how teacher preparation programs could be structured to foster a stronger understanding of practices related to inclusion and their corresponding impact on TSE.

Once teachers have completed the critical transition from being pre-service teachers to working as professional educators, their primary source of TSE shifts from pre-service programs to colleagues and students with whom they spend several hours each day. Principals, in particular, can have a significant impact on a novice teacher's TSE.

Principals

Principals have a unique impact on the daily lives of the teachers with whom they work because they share a large portion of professional life-space with teachers and have the potential

to support teachers' TSE in multiple ways. The simple fact that principals can greatly affect novice teachers' TSE should be kept in mind as principals seek to support the development of the teachers with whom they work.

Principals may also be inspired by the findings related to the impact of teacher reflection on TSE. Some teacher evaluation systems have formalized reflective practices by mandating written reflection (Wisconsin DPI, 2010). Principals may want to examine ways they could link these mandated reflective practices to TSE. By understanding and communicating the power of reflection, principals may be able to offer encouraging information that could increase teachers' likelihood of internalizing reflective practices in order to positively impact their TSE. In other words, principals can reinforce the importance of reflection by helping teachers understand that reflection may directly benefit their TSE. My findings suggested the most impactful form of reflection is a habitual and formalized reflection that includes a plan for future actions. Given the direct impact a principal can have on the professional development of teachers, it may be beneficial for principals to encourage teachers to prioritize specific reflective practices.

Another implication from my research for teachers and principals concerns collaborative practices with colleagues. Collaboration is a ubiquitous theme in today's K-12 education settings (Dufour, 2001). The implications of this study do not offer any unnecessary and redundant support for the well-researched benefits of collaboration. Instead, there may be implications related to how collaboration with colleagues may benefit TSE. Principals may want to consider creating opportunities for increased, formalized collaboration. Collaborative opportunities could include mentorship programs for new teachers or access to instructional supports such as instructional coaching or peer coaching.

Finally, in this study, teachers at all career stages identified inclusive practices as contributors to their TSE development. Principals are in a unique position to foster and support inclusive practices at the school level, and therefore, principals should strive to implement a thoughtful array of opportunities to provide inclusive education for teachers and their schools. Relatively inexperienced teachers may benefit from opportunities to learn strategies for inclusion from coaches and mentors, while those same coaches and mentors may benefit from the opportunity to lead such initiatives.

Principals can effectively influence the development of TSE for teachers and their school at all career stages by considering differentiated support based on the experience levels of their staff members. Supporting new teachers demands a great deal of a principal's time. However, it is also important for principals to empower veteran staff members by offering leadership opportunities geared toward the interests of highly skilled veteran teachers instead of simply offering leadership opportunities linked to predetermined administrative initiatives. Although principals support teachers in direct ways on a daily basis, district level support may be required to implement more systemic improvements to support the development of TSE for teachers at all career stages.

School District Administration

School district administrators are uniquely situated to consider system-wide opportunities to support the development of TSE because they have access to initiatives and resources that may benefit teachers. District administrators can begin to build TSE among their schools' teachers by developing and sharing a strong vision. A school district that has a coherent vision from the district level to the school level is best positioned to provide clarity and meaningful support for teachers in the district (Gunn & Hollingsworth, 2013).

School district administrators may consider working with school boards to establish a strategic vision that acknowledges the five themes identified in this research. Reflection, feedback, student relationships, inclusion, and collaboration could all be central elements to a long-term strategic vision that could benefit TSE and the collective efficacy of schools and the district. Long-term strategic visions generate initiatives and goals. Ideally, school district administrators should monitor TSE and collective efficacy through ongoing data collection and analysis. Engaging in this sort of data collection and analysis may bolster teachers' TSE by naturally supporting their feedback and reflection needs.

For some district administrators who do not regularly observe teachers at work, it may seem as if collaboration should develop naturally among teachers. On the contrary, collaboration requires support and resources. The paramount resource related to collaboration is time (Dufour, 2012). District administrators may want to consider their scheduling practices to allow for consistent, meaningful collaboration among teachers. Collaboration does not need to be limited to groups of teachers working in the same school; district administrators could open the doors to a more diverse set of perspectives by creating opportunities for collaboration among schools in the district or between multiple districts.

District administrators may find implications related to financial resources in this study. Districts may want to examine their current mentoring practices in light of the findings in this study related to collaboration in this study. All too often, mentoring programs are placed at risk in efforts to reduce costs. Teachers in all career stages identified coaching as a factor contributing to their TSE, but novice teachers, in particular, greatly benefit from mentoring. District administrators who seek to increase TSE in their faculty may want to consider staffing processes and allocations for coaching and mentoring based on the findings in this study. Just as

principals and school-based leadership may require support from district administrators in their efforts to increase TSE, school districts may require support from policymakers, especially when it comes to initiatives that require a large budget.

Educational Policymakers

I framed the introduction of this study by considering the impact ACT 10, a significant political initiative with sweeping impact in the state of Wisconsin, had on teachers. Politicians and educational policymakers can have a tremendous impact on the efficacy of public schools, and therefore, it is crucial that policymakers understand the importance of TSE. This study's results and implications are truly only relevant to those who recognize the benefits of TSE; my hope is that this study will be used to educate policymakers on the importance of TSE, as they are the stakeholders most removed from actual teacher-student interactions that benefit so greatly from high TSE (Tschannen-Moran & Woolfolk-Hoy, 2001; Woolfolk-Hoy & Burke-Spero 2005).

Policymakers should understand the impact that feedback from authority figures can have on TSE. Teacher effectiveness is one aspect of school improvement on which considerable educational policy focuses. Policymakers often address this through the avenue of teacher evaluation (Tuytens & Devos, 2010). A key component of a teacher evaluation system is teacher feedback (Stronge, Ward & Grant, 2011). My findings suggest the value teachers place on feedback from authority figures decrease throughout their careers. Policymakers may benefit from examining their policies from this perspective and consider more opportunities for peer feedback for veteran teachers. Educational policies should be crafted to ensure the quality of the feedback teachers receive as a result of the evaluation process.

Policymakers should also consider this study's findings on the power of collaboration. Collaboration with colleagues positively impacts teachers' TSE. Policies to promote collaboration could offer far-reaching benefits for the development of TSE. Educational policy consists of three major categories: general guidance, supports and resources, and sanctions and punishment (McGuinn, 2010). Shifting resources toward support and resources and away from punitive sanctions would benefit many schools instead of focusing on the few that are not meeting expectations. For example, Policymakers could create programs supporting the development of career lattice programs, thus increasing support for new teachers while offering TSE supporting opportunities for veterans.

Summary

This study has implications for teachers, teacher preparation programs, principals, district administrators, and educational policymakers. By applying the concepts of the CTSE model—specifically, by developing ways to expand influence or refine the focus of teachers—stakeholders can impact their own TSE or the TSE of teachers they support. The *habits of learning* themes of self-reflective practice, seeking and valuing feedback, and collaboration transition to a more student-focused approach as high TSE teachers progress through their career. The focus on student themes of prioritizing student relationships and commitment to inclusive practices shift from influencing self and small groups to influencing systems such as schools, districts, or the broader profession. Teachers and those who support teachers can use the CTSE model to identify limiters of TSE and work toward the next level on the model's influence or focus hierarchies. Although my findings may contribute to the scholarly body of research related to TSE, there are inherent limitations to my study. The next section explores these limitations.

Limitations of the Study

This study examined the processes in which teachers engage to develop self-efficacy through various stages of their careers. Several factors related to the research population and the scope of the study created limitations. First, the study was geographically limited to the upper Midwest; all participants taught in Wisconsin or Minnesota. This geographic limitation could affect findings due to cultural, linguistic, and structural differences in areas outside the upper-Midwest region of the United States.

The geographic range was also a contributing factor to the most significant limitation of the study, which was the relative homogeneity of the participants. The vast majority of participants were White, middle-class teachers who grew up near the communities in which they taught. Therefore, I was not able to analyze results by comparing macro-cultural differences. I instead focused on the micro-culture in the participants' schools. Participants often identified their school culture as a primary variable that impacted the data. For example, if a school culture valued social-emotional learning, there was likely more related data available. If the school culture exclusively focused on academic results, the majority of available data was related to academic outcomes.

The manner in which the survey instrument was used introduced some limitations. First, the survey was distributed to teachers throughout the state of Wisconsin via the Wisconsin Education Association newsletter. This recruitment method limited the respondent pool to those teachers who were more likely to be involved in, or aware of, union activity. This recruitment process also limited survey respondents to teachers in Wisconsin, while the participants in the qualitative portion of the study taught in both Wisconsin and Minnesota. The geographic

limitations and the limitations in my recruitment strategies limit the ability to generalize the findings beyond the upper Midwest.

I selected a mixed-methods approach to bolster my qualitative findings with quantitative data and to mitigate some of the limitations related to highly perceptual subject matter such as TSE. Because TSE is based on individual beliefs and perceptions, it was challenging to capture accurate data on a Likert scale-based survey instrument. Respondents may have interpreted ratings such is "not at all important" or "extremely important" very differently. Therefore, the interpretations of the respondents limit the universal applicability of the findings. The fact that the population of respondents to the survey and the population of participants in the qualitative portion of my study were different also introduced limitations in the ability to triangulate data for specific participants from the qualitative and quantitative data. These limitations invite opportunities for further research.

Recommendations for Further Research

Further research is needed to identify specific strategies and programs to foster the development of TSE for teachers in all stages of their careers. In 2007, Tschannen-Moran and Woolfolk-Hoy published research focused on the antecedents of self-efficacy beliefs of novice teachers and veteran teachers and recommended further research on ways to sustain TSE through a teaching career. My research is a direct response to this recommendation. Additional research is needed to more completely understand the ways teachers can be supported in the development of their TSE throughout their entire career: from the earliest pre-service stage to their final years of teaching.

There are distinct differences in the ways teachers develop self-efficacy throughout their careers. My research focused specifically on each stage of a teacher's career in order to help

elucidate specific strategies that may prove beneficial to the development of TSE. Further research of this sort would contribute to the scholarly body of work related to TSE by clarifying specific contributors to TSE. Preservice teachers conceptualize and strengthen their TSE very differently from a veteran who has been teaching for more than 20 years. I focused my research on the full spectrum of career stages, and strongly believe further research into each individual career stage would strengthen the scholarly body of knowledge related to TSE.

The United States is in the midst of a nationwide teacher shortage (Passy, 2018). It is imperative that efforts are implemented to mitigate the loss of teacher candidates. Research on the relationship between TSE and teacher recruitment and retention could prove beneficial in informing potential practices to mitigate the current teacher shortage. Preservice teachers often enter the profession with an inflated sense of their ability to immediately impact all students. Research suggests this inflated sense of TSE quickly erodes due to the trials and tribulations faced by many teachers in their first few years on the job (Clark & Newberry, 2018). Studies on this phenomenon would greatly benefit the scholarly body of research on TSE. Findings could illuminate strategies to offer hopeful but realistic messages to pre-service teachers while concurrently supporting the TSE development of teachers in their first few years.

On the other end of the career spectrum, teacher burnout is contributing to the potentially disastrous teacher shortage (Skaalvik & Skaalvik, 2007). Further studies on how school systems can support the development of TSE for veteran staff members to mitigate the risks of burnout could benefit U.S. schools and students alike. Specifically, qualitative research that examines the self-efficacy of teachers who have left the profession due to burnout would help identify potential TSE development strategies to reduce the symptoms of burnout.

Further research on the general trend of teacher career development would also be informative. The typical career path of a teacher who chooses to stay in the field of education is much more limited than in most professions; there are simply not nearly as many rungs to climb in a teacher's career ladder as there are in other professions (Hart, 1987). Beyond limited administrative positions and a few formal teacher leadership opportunities, teachers who seek career advancement often need to leave the profession. Further research into teacher career ladders and lattices could help illuminate alternative strategies and career structures that would allow teachers to progress through their careers and continually bolster their TSE. The concept of career lattice looks at ways to broaden and extend teacher skill set and responsibilities without necessarily assuming a new position (Chandler, Lane, Bibik, & Oliver, 1988). Research into the concept of career lattice for teachers could also offer insight into ways TSE can be developed, and job satisfaction can be increased in the absence of a well-defined career ladder.

The concept of career lattice could open opportunities for teachers to contribute to their career development in ways that match their interests and talents. Additionally, career lattice models allow great teachers to remain great teachers. Excellent teachers would not need to leave the classroom to expand their contribution and to refine their career trajectory. A career lattice would benefit students by increasing job satisfaction and limiting burnout for teachers looking to reinvigorate their careers (Chandler, Lane, Bibik, & Oliver, 1988).

The impetus for this dissertation was, in part, divisive education-related politics in the state of Wisconsin, and the erosion of TSE I witnessed in some teachers who found themselves caught up in polarizing political upheaval. While some teachers struggled to maintain focus in a divisive environment, other teachers rose above politics, found a way to tap into their TSE, and continued to perform at their highest possible level. These resilient, focused teachers inspired

this study. As a result, I took an asset-based approach to this research and primarily focused on contributors to TSE development. To provide data that supplements the results of this study, I suggest further research on factors that decrease, or threaten, TSE at all career stages. Most importantly, I suggest that further research into specific examples of teachers who face great adversity, yet find ways to strengthen their TSE and creatively empower their students. The most intriguing finding of this study was the way experienced high TSE teachers consistently focused on their students' needs. These teachers focused on developing student self-efficacy because they realized that true transformative learning can only occur when a student is in charge of his own learning. Future studies on the development of student self-efficacy could help high TSE teachers share the power of self-efficacy with their students.

Closing Thoughts

It is time to elevate the concept of teacher self-efficacy from its current status as a topic of academic study to a prime focus of practical professional learning in the field. TSE benefits teachers at all career stages. By framing TSE as a major contributor to the wellbeing of teachers, and to positive outcomes for students, strategies to develop teachers' TSE can be directly and continually implemented at all levels of the education system. All teachers should know that their self-efficacy is of paramount importance; district leaders and policymakers must also understand this crucial fact.

My research into TSE development has been incredibly rewarding and has significantly impacted my practice as a school district leader. This research has allowed me to more thoroughly understand ways districts can support teachers by deliberately implementing programs that foster and support the ongoing development of their TSE. In addition, I have gained a deeper understanding of the importance of a teachers' beliefs in their ability to meet the

needs of all of their students. Teachers who demonstrate the tenacity and compassion to persevere in the face of the challenges that, for some, can be insurmountable, have inspired me.

The 18 participants who so graciously agreed to take part in my study inspired me to complete the study and to contribute to the scholarly body of work related to TSE. Teaching is a complex and demanding profession that is further complicated by the competing priorities which constantly bombard teachers and other educational professionals. Teachers need TSE to be able to nimbly navigate the ever-shifting professional and political terrain of PK-12 education. I can only hope that my research offers a useful contribution to the collective effort to support the only group of people who truly have the power to transform our education system — self-efficacious teachers.

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Appendix A

IRB Approval

UNIVERSITY OF St.Thomas

All for the Common Good™

Date: June 8, 2018

To: David Grambow

From: Sarah Muenster-Blakley, Institutional Review Board

Project Title: [1220537-1] Developing Teacher Self-Efficacy

Reference: New Project | Action: Project Approved

Approval Date: June 8, 2018 | Expiration: June 7, 2019

Dear David:

I have read your protocol and approved your project as reflected in the application that you submitted. Please note that all research conducted in connection with this project title must be done in accordance with this approved submission.

Please remember that informed consent is a process beginning with a description of the project and assurance that the project is understood by the participants and their signing of the approved consent form. The informed consent process must continue throughout the project via a dialogue between you and your research participants. Federal law requires that each person participating in this study receive a copy of the consent form. All research records relating to participant consent must be retained for a minimum of three years upon completion of the project.

Amendments or changes to targeted participants, risk level, recruitment, research procedures, or the consent process as approved by the IRB must be reviewed and approved by the IRB prior to your making changes to your research study. No changes may be made without IRB approval except to eliminate apparent immediate hazards to the participant.

Any problems involving project participants or others must be reported to the IRB within one (1) business day of the principal investigator's knowledge of the problem. Any non-compliance or complaints relating to the project must be reported immediately.

Approval to work with human subjects in connection with this project will expire on **June 7, 2019**. This project requires continuing review on an annual basis. Documentation for continuing review must be received at least two weeks prior to the expiration date of **June 7, 2019**.

Please direct questions at any time to Sarah Muenster-Blakley at (651) 962-6035 or muen0526@stthomas.edu. I wish you success with your project!

Sincerely,

Sarah Muenster Blakley

Sarah Muenster-Blakley, M.A., CIP
Chair, Institutional Review Board

Appendix B

General Consent Form

I am pleased to invite you to participate in a research study about teacher self-efficacy. Specifically, the study will explore the process by which teachers develop self-efficacy and ultimately increase their effectiveness. You were selected as a possible participant because of your perceived level of self-efficacy. You are eligible to participate in this study because you are a current teacher with over ten years of experience in Wisconsin or Minnesota. The following information is provided in order to help you make an informed decision on whether or not you would like to participate. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by David Grambow, a doctoral student at the University of St Thomas in the College of Education Leadership and Counseling. The study will be submitted to the Institutional Review Board at the University of St. Thomas.

Background Information

This grounded theory study aims to develop a theory explaining a process by which teachers develop self-efficacy. Bandura's seminal research on self-efficacy illuminated four sources for the development of self-efficacy. These sources include engaging in mastery experiences, vicariously experiencing examples of self-efficacy through social models, social persuasion, and by reducing barriers to the development of self-efficacy (Bandura, 1995, p.3). This work by Bandura helps us understand sources and inspiration for self-efficacy development but does not directly speak to the process for said development. I plan to interview up to twenty teachers in Wisconsin who indicated a strong belief in their self-efficacy based on their response on a previously administered survey.

Procedures

If you agree to participate in this study, I will ask you to do the following things:

- Spend up to 90 minutes participating in a one-on-one interview with David Grambow in a mutually agreed upon location.
    - In-person interviews will take place in your school setting (i.e., classroom, conference room or office), or in the interviewer's office at 644 Brakke Dr. Hudson, WI.
    - Online interviews will take place via Zoom in a privately scheduled conference.

- Agree to participate in possible follow up interview questions via email or teleconference.

Risks and Benefits of Being in the Study

Minimal risks for participants exist. I will make every attempt to safeguard confidentiality using pseudonyms. Participation in the study is voluntary.

The direct benefit you will receive for participating includes an opportunity to share your experiences developing teacher self-efficacy. The body of knowledge developed in this study has the potential to support other teachers as they strive to develop self-efficacy.

Compensation
There will be no compensation for participation in this study. All participation is completely voluntary.

Privacy

Your privacy will be protected during and after your participation in this study. Although I cannot guarantee absolute anonymity, I will make every effort to protect your privacy. I will use pseudonyms in any share documents or drafts. You will have the right to determine the location and timing of any participatory activities including but not limited to the interviews and observations. However, due to the nature of the study procedures, privacy cannot be fully guaranteed while you participate in this study.

Confidentiality

The records of this study will be kept confidential. In any report I publish, I will not include identifying information. The types of records I will create include written field notes, interview transcripts, digital recordings of the interview, memos, written descriptions of potential observations of your teaching, and written descriptions of your teaching environment. All digital information will be stored on an encrypted and password-protected local drive and backed up in an encrypted and password protected cloud-based storage system. I will personally transcribe all audio files or use a service with clearly articulated confidentiality procedures. All signed consent forms will be kept for a minimum of three years upon completion of the study. Institutional Review Board officials at the University of St. Thomas reserve the right to inspect all research records to ensure compliance.

Voluntary Nature of the Study

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with the Hudson School District, your employer, or the University of St. Thomas. There are no penalties or consequences if you choose not to participate. If you decide to participate, you are free to withdraw at any time without penalty or loss of any benefits to which you are otherwise entitled. Should you decide to withdraw, data collected about you will only be used with your additional written

consent. You can withdraw by emailing me at dave.grambow@gmail.com or phone at 715-338-2975. You are also free to refrain from answering any questions I may ask.

Contacts and Questions

My name is David Grambow. You may ask any questions you have now and any time during or after the research procedures. If you have questions later, you may contact me at dave.grambow@gmail.com or by phone at 715-338-2975. You may also contact the University of St. Thomas Institutional Review Board at 651-962-6035 or muen0526@stthomas.edu with any additional questions or concerns.

Statement of Consent

I have had a conversation with the researcher, David Grambow, about this study and have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age. I give permission to be audio recorded during this study.

You will be given a copy of this form to keep for your records.

_____ _____

Signature of Study Participant **Date**

_____

Print Name of Study Participant

_____ _____

Signature of Researcher **Date**

Appendix C

Email Invitation to participate

Greetings,

I hope this email finds you doing well. First of all, I want to thank you for being a teacher in the great state of Wisconsin. Your job is immensely important to the students, your community, and the state. I am currently an administrator in the teaching and learning department in a Wisconsin school district. One of my primary responsibilities is ensuring we have highly qualified and well-supported teachers in our district.

I am currently working on my doctoral dissertation at The University of St. Thomas. I am studying the processes through which teachers develop self-efficacy. Teacher self-efficacy is the belief a teacher has in his or her ability to meet the needs of all of their students. I believe teacher self-efficacy is more important now than ever. As you know, teachers are operating under the pressure of increased accountability measures from the federal, state, and local levels. Teachers are working hard to meet the needs of students who come to the classroom with ever-changing backgrounds and needs. All of this can wear a teacher down. That is why teacher self-efficacy is so important. Teachers need to know they can make a difference!

I would sincerely appreciate it if you would complete a short survey regarding teacher self-efficacy. The survey consists of forty-four scale and multiple-choice items. The results of this survey will help me identify a group of up to twenty teachers to interview in more depth regarding teacher self-efficacy. Whether or not you are selected to take part in the next phase of this study, I will contact you via email to discuss the next steps in the process. If you are willing to do so, you can click on this link to access the electronic survey. If you have any questions, please do not hesitate to ask.

Yours appreciatively,

Dave Grambow

EMAIL PERMISSION FROM SUPERINTENDENTS

Dear ,

Although I am an administrator in the region, I am writing to you in the capacity of a student. I am currently working on my doctoral dissertation at The University of St. Thomas. My study concerns the process and conditions influencing the way teachers develop beliefs about their ability to affect student success. As you know, teachers operate in a new era of increased accountability measures from the federal, state, and local levels. Teachers work hard to meet the needs of their diverse students with a variety of backgrounds and needs. The most important factor affecting students' success involves well-prepared and supported teachers. I would sincerely appreciate it if you would allow me to ask some of your teachers to complete a short survey

regarding the way they formed their beliefs about teaching, and how they continue to grow as professional educators.

The main portion of the survey is comprised of twenty-four questions to be ranked on a nine-point scale, reflecting the degree to which the teacher agrees with the statement. There is an additional set of questions regarding career stages and perceived influences on teacher self-efficacy. The results of this survey will help me identify a group of up to twenty teachers to interview in more depth. The interview will explore how teachers develop their beliefs about teaching and the effects of these beliefs on student learning. Whether or not the teacher is selected to take part in the next phase of this study, I will contact them with information via email to discuss the next steps in the process.

I will in no way identify the teachers nor will I identify the specific school or district in which the teacher works. I will identify each participant with a pseudonym. I will only indicate the general size of the school and district and that the school is in Wisconsin. I will interview outside of the teachers' contracted work schedule.

Please let me know if you would be willing to allow me to interview teachers in your district. With your permission, I will start this process by working with teachers who are part of a principal licensure program. In your district, I would like to invite _____ to participate. I will be using a chain sampling strategy to recruit participants. I will also ask _____ to invite other teachers who may demonstrate high levels of teacher self-efficacy to participate. I will continue this process until I have identified and recruited up to a total of twenty participants. I will be recruiting from four districts, so I would anticipate interviewing no more than five to seven teachers in your district throughout this upcoming school year. Please let me know if you would be willing to allow me to interview your teachers. If you have any questions, please do not hesitate to ask.

Yours appreciatively,

Dave Grambow

Appendix D

Survey

Teacher Self-Efficacy Beliefs - Long Form

1. Modified from Tschannen-Moran Teacher Beliefs - TSES (Tschannen Moran & Woolfolk Hoy, 2001)

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum. (1= None at all, 3=Very Little, 5=Some Degree, 7= Quite a bit, 9=A great deal)

Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position. There are a total of 44 multiple-choice or scaled questions that should take less than 20 minutes to complete. If you have questions or concerns, please contact Dave Grambow at Dave.grambow@gmail.com.

This personal information will ONLY be used for contact purposes. If you are going to be invited to participate in the next phase of the study, this information will be used to make contact and to establish an opportunity to engage in a corresponding interview. The personal information will NOT be published in any way or shared with anyone.

1. Address

Name	
State/Province	
Personal Email Address	
Phone Number	

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2.

2. How much can you do to get through to the most difficult students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

3. How much can you do to help your students think critically?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

6. To what extent can you make your expectations clear about student behavior?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

8. How well can you respond to difficult questions from your students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

9. How well can you respond to difficult questions from your students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

11. How much can you gauge student comprehension of what you have taught?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

13. How much can you do to foster student creativity?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

15. How much can you do to improve the understanding of a student who is failing?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

18. How much can you do to adjust your lessons to the proper level for individual students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

20. How well can you keep a few problem students from ruining an entire lesson?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

22. How well can you respond to defiant students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

25. How well can you provide appropriate challenges for very capable students?

None at All		Very Little		Some Degree		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

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3.

26. How many years have you been teaching?

- ◯ 1-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21+

27. How would you characterize your current professional setting?

- ◯ Rural
- ◯ Exurban / small town
- ◯ Suburban
- ◯ Urban

28. Gender

- ◯ Female
- ◯ Male
- ◯ Non-binary
- ◯ Prefer not to reply

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4. Factors Affecting Teacher Self Efficacy

Teacher self-efficacy is the belief a teacher has in his or her ability to meet the needs of all students. Please indicate which of the following factors you would currently attribute to increases in your self-efficacy. Rate each factor on a 1-4 scale with 4 being the highest impact on your self-efficacy. (1=no impact, 2=minimal impact, 3=moderate impact, 4=high impact)

29. Feedback from students

1	2	3	4
◯	◯	◯	◯

30. Feedback from parents or guardians

1	2	3	4
◯	◯	◯	◯

31. Feedback from Colleagues

1	2	3	4
○	○	○	○

32. Evaluative feedback from supervisor

1	2	3	4
○	○	○	○

33. Working with a mentor or coach

1	2	3	4
○	○	○	○

34. Autonomy-Ability to make your own decisions

1	2	3	4
○	○	○	○

35. Clear expectations

1	2	3	4
○	○	○	○

36. Mastering an instructional strategy or skill

1	2	3	4
○	○	○	○

37. Working with expert teammates

1	2	3	4
○	○	○	○

38. Being encouraged by colleagues

1	2	3	4
○	○	○	○

39. Maintaining positive relationships with students

1	2	3	4
○	○	○	○

40. Holding high expectations for students

1	2	3	4
○	○	○	○

41. Engaging in professional development opportunities

1	2	3	4
○	○	○	○

42. Engaging in professional development opportunities

1	2	3	4
○	○	○	○

43. Mentoring other teachers or pre-service teachers

1	2	3	4
○	○	○	○

44. Fostering student independence

1	2	3	4
○	○	○	○

45. Please list any other factors you feel have increased your ability to meet the needs of all of your students:

1 _____

2 _____

3 _____

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5.

Appendix E

Interview Protocol

Primary Questions:

1. How long have you been a teacher? (Background)
2. At what point in your career did you determine you were an effective teacher? (process)
3. Looking back at your career, what has supported your ability to meet the needs of your students as you moved from pre-service to a new teacher? From new teacher to mid-career stage (5-15 yrs)? From mid-career to the veteran?
4. How have mentors supported the development of your ability to meet the needs of your full range of learners?
5. How do you foster student learning independence?
6. Describe your expectations for your students.
7. What actions have other taken that have affected your belief in your ability to reach all children? (VE/VP)
8. Describe your earliest professional recollection of a time when you felt confident you were meeting the needs of your students. (process)
    a. What was it about that experience that affected your self-efficacy belief? (process)
2. What experiences since then have sustained your self-efficacy beliefs? (ME, VE, VP, EPS**)**
3. How would you describe the process you have gone through realizing you were effective with a broad continuum of student needs, challenges, and abilities?
4. How have your colleagues support your self-efficacy beliefs? (VE, VP)
5. Describe an instance where you learned you could be successful with challenging students? (process)
6. Describe what it feels like when you are confident you are meeting the needs of all of your students. (EPS)
7. Describe your self-reflection practices. (Do you journal, reflect with colleagues, family members, etc…) (Process)

Secondary Questions

8. How do you know you are reaching all your students? (ME)
9. On what part of the students' lives do you feel you have the most impact? (Norton, 2013, p.174) (ME)
10. How do the people with whom you work affect your sense of self-efficacy? (VP, VE)
11. What convinces you to remain in the profession? (Norton, 2013, p.174) (ME, VP, VE, EPS)
12. How do you think your self-efficacy affects student achievement if at all? (ME, VP, VE, EPS)
13. What actions to do you take that ensure your effectiveness as a teacher? (ME)
14. How does your communication with parents affect your self-efficacy beliefs? (ME, VP, VE, EPS)
15. How does your reflection affect your self-efficacy?
16. Describe specific teaching situations that increased your ability to reach all students. (process)
17. What sort of teaching or professional development experiences has positively affected your belief in your ability to reach all students? (ME)