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EXPLORATION OF FACTORS INFLUENCING TEACHER SELF-EFFICACY IN EDUCATORS OF JUSTICE-INVOLVED JUVENILES IN SPECIAL SETTINGS: AN EXPLANATORY SEQUENTIAL MIXED-METHODS STUDY

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WENDY R. MITCHELL
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EXPLORATION OF FACTORS INFLUENCING TEACHER SELF-EFFICACY IN EDUCATORS OF JUSTICE-INVOLVED JUVENILES IN SPECIAL SETTINGS: AN EXPLANATORY SEQUENTIAL MIXED-METHODS STUDY

A DISSERTATION APPROVED FOR THE
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BY THE COMMITTEE CONSISTING OF

Dr. Kendra Williams-Diehm, Chair

Dr. Kelly Feille

Dr. Corey Peltier

Dr. Emily Kuntz

Dedication

To my family, fellow educators, and past and future students.

Acknowledgements

I want to acknowledge my beautiful family. Dad, you have always supported me, and I have appreciated it more than you will ever know. Mom, I feel your pride from heaven. Brothers and sisters, thank you for making me the person I am.

Justus and Loralei, you both make me so proud. Thank you for your patience and understanding over these past four years. I know it was a sacrifice of love and time.

Daniel, you are my rock. Thank you for helping make this dream come true. I love you.

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Abstract

Juveniles involved with the justice system are a population of youth with extensive needs who are historically underserved. Legal mandates have attempted to ensure these students are receiving a quality education, but little is known about the educators who are providing services. This explanatory-sequential mixed-methods study sought to identify patterns in demographic characteristics, feelings of teacher self-efficacy, and development of feelings of high teacher self-efficacy in a group of educators of justice-involved juveniles in special settings. Quantitative analysis included descriptive statistics, non-parametric analysis of variance, and non-parametric correlations. Qualitative analysis included an iterative process beginning with a priori codes, leading to development of sub-groupings. Findings suggest this group of participants were moderately efficacious in working with justice-involved juveniles. Group variances indicate females with more life experiences, higher levels of education, and more years of teaching experience tend to score higher on teacher self-efficacy. This group of educators scored slightly higher on Teacher Self-Efficacy scale items that referred to general teaching strategies versus those designed for at-risk or disruptive students, indicating a deficit for working with special populations. Further, this group placed less emphasis on vicarious learning experiences, such as efficacy grained through coursework or observations, in the development of their feelings of high teacher self-efficacy. Implications are discussed regarding future instruction and training of preservice educators to improve feelings of efficacy for working with justice-involved juveniles in special settings.

Keywords: teacher self-efficacy, sources of efficacy, correctional education, justice-involved juveniles, explanatory sequential mixed methods

Chapter 1

Introduction

Youth exhibiting severe behavioral problems often face a myriad of challenges that influence their prognosis, including those involving academic, behavioral, and emotional issues (Unruh et al., 2021). Youth at risk for juvenile justice involvement frequently experience cognitive and social issues which are exacerbated by documented disabilities (Cole & Cohen, 2013). Several studies have attempted to determine the prevalence of disabilities among youth in correctional institutions (National Center on Education, Disability, and Juvenile Justice, n.d.; Quinn et al., 2005; Rutherford et al., 2002). However, estimates are hampered by differing methodological problems, variable settings, and varying definitions of disabilities (Bullock & McArthur, 1994; National Center on Education Disability and Juvenile Justice, n.d.). Nevertheless, research indicates justice-involved juveniles[1] are six times more likely to have an emotional or behavioral disorder than non-adjudicated peers (Gagnon et al., 2000) and as many as 70% of adjudicated youth have a mental health disorder (Skowyra & Cocozza, 2006). In fact, about 60% of incarcerated youth have three or more comorbid mental health disorders (Wasserman et al., 2003). Furthermore, this population is frequently victimized by trauma with histories of abuse, neglect, and interactions with the child welfare system (Pyle et al., 2016). They are also more likely to experience conduct disorder, anxiety, depression, and substance abuse (Pyle et al., 2016). These characteristics contribute to the complexity of educating youth in specialized settings and underscore the need for highly qualified teachers (Development Services

[1] Based on current literature and author preference, the phrase *justice-involved juveniles* will be used throughout this dissertation to represent individuals under the age of 18 accused of committing delinquent or criminal acts.

Group, Inc., 2019; U. S. Department of Education (DOE) & U. S. Department of Justice, (DOJ) (2014).

Statement of the Problem

Justice-involved juveniles possess educational rights protected by several mandates, including The Every Student Succeeds Act of 2015 (ESSA), the Individuals with Disabilities Education Act of 2004 (IDEIA), and the Juvenile Justice and Delinquency Prevention Act of 1974 (JJDPA). These mandates ensure youth receive appropriately designed instruction from qualified teachers regardless of their placement in special programs or their judicial standing. The complexity of educating youth in specialized settings suggests a need for highly successful teachers throughout the continuum of special settings associated with the juvenile justice system (Development Services Group, Inc., 2019; U. S. DOE & U. S. DOJ, 2014). In fact, there may be no other group of young people "whose need for quality education is more acute- and whose situation makes them especially challenging to serve- than incarcerated youth." (The Council of State Governments Justice Center, 2015, p. 1). Even so, there is consistently a deficit in high-quality education for students in residential facilities in contrast to their peers not placed in a residential setting (Froemel, 2020; National Technical Assistance Center for the Education of Neglected and Delinquent Youth [NDTAC], 2015).

Literature on educators in correctional facilities is sparse, particularly for those working with juveniles (Aizer et al., 2013; Development Services Group, Inc., 2019). Therefore, little is known about the characteristics of juvenile correctional educators or their feelings of efficacy in working with specialized populations (Aizer et al., 2013; Quinn et al., 2005). Available evidence suggests a need for preparing this population of educators to work with a "disproportionate number of students who have disabilities, come from poverty, are minorities, have mental illness,

and have pronounced academic and behavioral deficits" (Houchins, 2010, p. 641). To improve outcomes for youth at-risk or those already involved with the juvenile justice system, we must first identify the characteristics of current juvenile correctional educators and their beliefs about personal teaching abilities and feelings of efficacy for working with special populations. Subsequently, determinations of ways to improve teacher efficacy can be identified and the results applied to professional development practices, leading to improved educational outcomes for justice-involved juveniles.

Purpose of the Study

This study will identify the characteristics of educators working in specialized settings designed for justice-involved youth. Additionally, it will explore the relation between demographic characteristics and TSE. Factors influencing TSE for teachers of youth in special settings associated with the juvenile justice system will be examined.

Specific Research Questions

(1) Are there common patterns or themes in demographic characteristics of this group of correctional educators of justice-involved juveniles.

(2) How do educators of justice-involved juveniles score on Total Teacher Self-Efficacy and the three types of TSE (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement) as measured by TSES?

(3) Do demographic characteristics have any relation to TSES Total or types of efficacy scores of educators of justice-involved juveniles?

(4) How do educators of justice-involved juveniles score on Total Sources of Self-Efficacy, and the four sources of teacher self-efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological States) as

measured by the SOSI?

(5) Do demographic characteristics have any relation to different sources of efficacy as measured by SOSI scores of educators of justice-involved juveniles?

(6) How do educators of justice-involved juveniles in special settings perceived and define influential components of mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states that affect, or have affected, their attainment of TSE?

(7) To what extent do educators of justice-involved juveniles in special settings perceive the four sources of efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) to have affected their efficacy?

Conceptual Framework

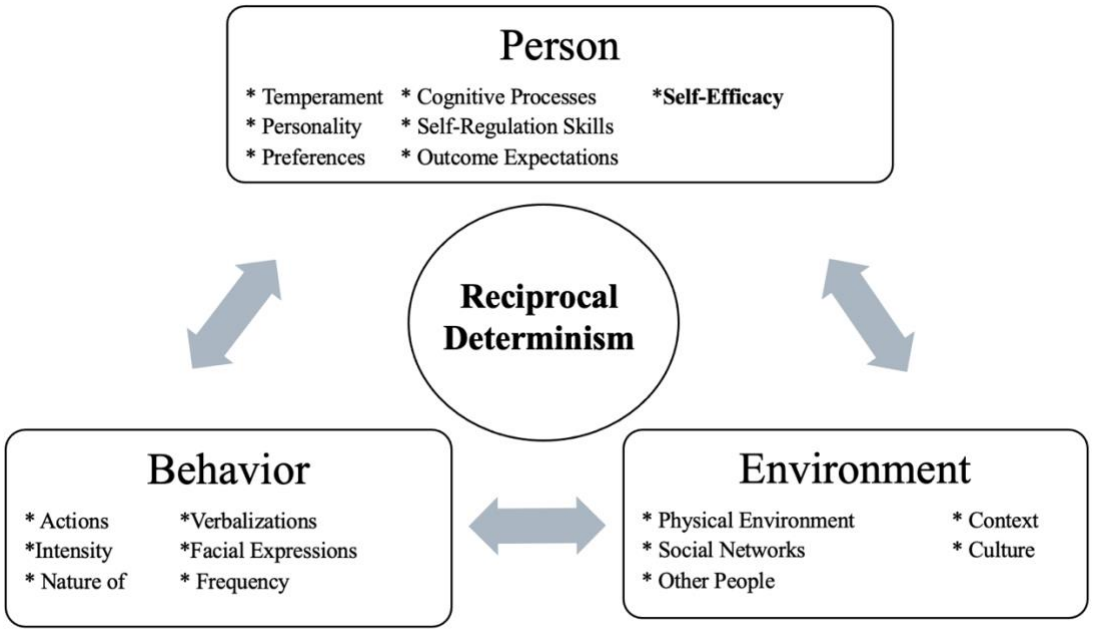
I am using an explanatory sequential mixed methods design to triangulate descriptive statistics and narrative research (Creswell & Creswell, 2018; Creswell & Plano Clark, 2018). This design entails identifying the characteristics and TSE levels of educators serving in special settings designed for justice-involved juveniles through an initial quantitative survey approach. Subsequently, more in-depth interviews with purposively selected participants will be conducted. The mixed method design will facilitate a comprehensive exploration of TSE through a combination of quantitative and qualitative data (Creswell & Plano Clark, 2017). Additionally, this design will address potential threats to validity by using the qualitative data to explain quantitative results, illuminating patterns or discrepancies (Creswell & Plano Clark, 2018). An exploration of outliers or unusual cases will lead to a more nuanced understanding of TSE acquisition in educators of justice-involved juveniles (Creswell & Plano Clark, 2018).

This study is grounded in Social Cognitive Theory (SCT, Bandura, 1977, 1986, 1997). A central tenet of SCT is reciprocal determinism, which refers to the dynamic interaction between

individuals with varying learned experiences, external context or environmental variables, and behavior resulting from stimuli (Bandura, 1978). In other words, reciprocal determinism is the interplay between at least two people who have different levels of experience (e.g., teacher and student), being influenced by external variables, with different resulting behaviors. SCT emphasizes the learning that occurs within a social context where people can exercise personal agency and both influence and be influenced by the environment (Bandura, 1977, 1997). Figure 1 represents the interaction of personal, environmental, and behavioral variables within reciprocal determinism during the learning process.

Figure 1

Reciprocal Determinism



A major component of SCT is the self-efficacy mechanism which plays a significant role in the exercise of personal agency (Bandura, 1986, 1989). Self-efficacy refers to an individual's belief in their capacity to execute behaviors necessary to achieve specific performance outcomes (Bandura 1977, 1986, 1997). Self-efficacy involves regulation through cognitive, emotional, and

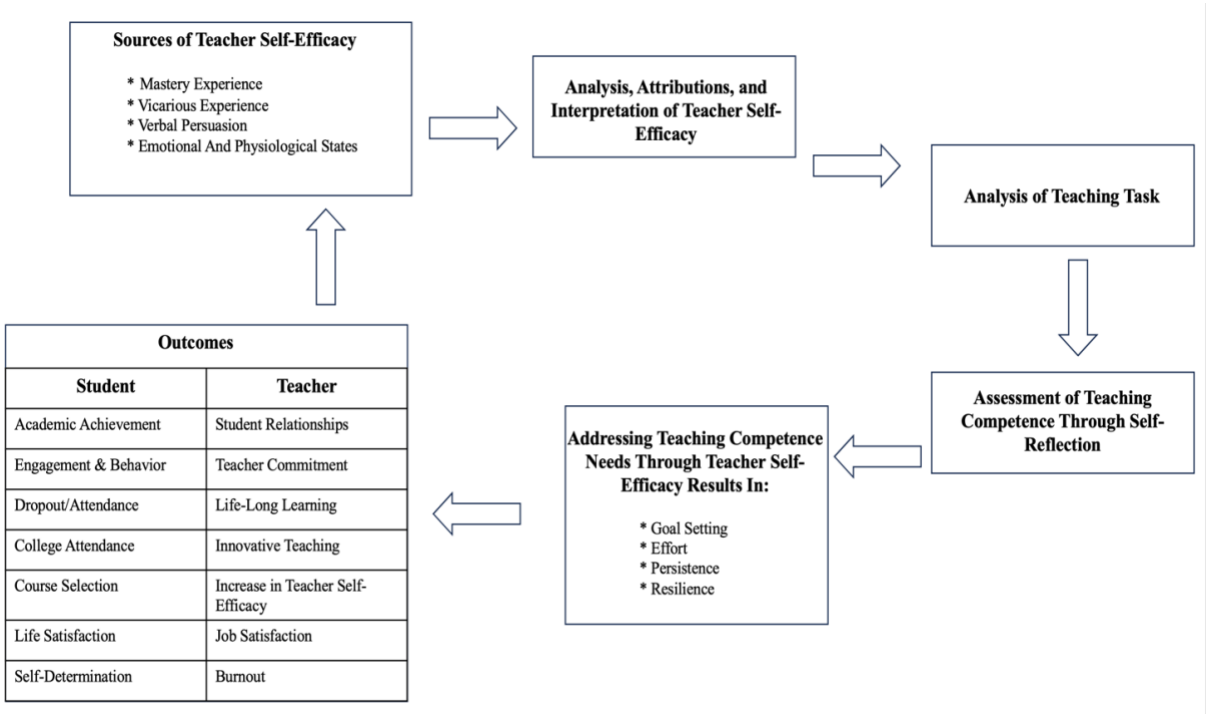
decisional processes and can play a major role in a person's ability to manage their behavior (Bandura, 1997; Benight & Bandura, 2004). If a person lacks belief in their ability to produce a desired outcome, they have little reason to take action (Bandura, 1998). In fact, few aspects of human agency are more pervasive than one's beliefs in their ability to manage their own behavior and exert control over life events (Bandura, 1997, 1989).

Self-efficacy is influential in academic situations, especially as reciprocal determinism indicates that teachers' self-efficacy influences student self-efficacy and vice versa (Bandura, 1978). Figure 2 highlights the reciprocal determinism concept as it relates to TSE beliefs which can impact how teachers motivate themselves, persevere in difficulties, cultivate emotional well-being, and whether they perceive themselves in enhancing or debilitating ways (Benight and Bandura, 2004). Elevated levels of self-efficacy are associated with selecting more challenging tasks, setting higher goals, completing objectives, investing more effort, and persevering through adversity (Bandura, 1977; Bandura, 1997; Luszczynska et al., 2005). These attributes are advantageous in teachers and can be nurtured in students through the social nature of learning (Bandura, 1977, 1986, 1997). Thus, efforts should be directed toward enhancing teachers' self-efficacy to improve student self-efficacy and promote successful outcomes. The initial step involves identifying the components influencing TSE. Social Cognitive theorists indicate four influential factors in self-efficacy: mastery experience, vicarious experience, verbal persuasion, and emotional/physiological states (Bandura, 1977, 1986, 1997). Teachers assess their teaching efficacy based on (a) mastery experiences, or their successes in prior teaching experiences, (b) vicarious experiences which involve observing others succeed or fail at a given task, (c) verbal persuasion, such as praise or encouragement from colleagues, parents, students, or administrators, and (d) emotional/physiological states (e.g., excitement, illness, anxiety) (See

Figure 2). Self-efficacy has undergone extensive research, yet there is substantially less research in the area of TSE. Particularly, information regarding TSE in educators of justice-involved youth in special settings is nearly absent (Aizer et al., 2013; Development Services Group, Inc., 2019).

Figure 2

Reciprocal Nature of TSE



Significance of the Study

The importance of self-efficacy for learning is underscored by the significant impacts of TSE on student learning outcomes (Chu & Garcia, 2018; Dellinger et al., 2008; Pearman et al., 2021; Shazad & Naureen, 2017). Students' learning outcomes can be significantly influenced by the levels of self-efficacy displayed by their teachers. This mutual influence suggests that self-efficacy beliefs shape various aspects of successful learning, such as activity selection, goal setting, effort allocation, and persistence (Schunk & Pajares, 2004). Given the reciprocal nature of the learning process, which involves a dynamic interaction between teachers and students, the

teaching efficacy of educators in high-need settings (e.g., separate setting schools) becomes crucial for producing positive student outcomes (U. S. DOE & U. S. DOJ, 2014).

One of the primary aims of this mixed-methods study is to explore characteristics and feelings of efficacy in educators of justice-involved juveniles within special settings. This exploration seeks to provide insights into how this population of educators develops high levels of teacher self-efficacy. The central objectives of this mixed method inquiry are to (a) quantitatively identify patterns or trends in demographic characteristics of educators working with justice-involved juveniles in special settings, (b) quantitatively identify patterns or trends in TSE levels among educators working with justice-involved juveniles in special settings, (c) quantitatively identify relations between TSE and demographic characteristics of educators working with justice-involved juveniles in special settings, (d) quantitatively identify relations between TSE and the four sources of efficacy, and (e) qualitatively examine patterns or trends in the acquisition of TSE as perceived by educators working with justice-involved juveniles in special settings. The basis for this exploratory research is related to the minimal data available on teacher efficacy of educators of justice-involved juveniles. Therefore, this research aims to fill the gap in teacher self-efficacy studies by forming a baseline for understanding characteristics, efficacy beliefs, and training practices of justice involved educators in special settings.

Definition of Terms

Educators: Certified educators responsible for the primary instruction of students within a K-12 alternative setting.

Emotional/Physiological States: Emotional states refer to the feelings and emotions experienced by educators during teaching activities (Bandura, 1977, 1986). Positive emotions can enhance feelings of self-efficacy. Physiological states refer to the physical sensations or

reactions teachers experience while teaching. Physiological states include increased heart rate, sweating, muscle tension, or feelings of calmness and relaxation (Bandura, 1977, 1986).

Juvenile: An individual not old enough to be held accountable for criminal acts. In most states the age of culpability is 18 (Development Services Group, Inc., 2017; Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2022).

Justice-Involved Juveniles: Individuals under the age of 18 accused of committing delinquent or criminal acts, with the juvenile law process of governed by a collection of state and local court-based systems (OJJDP, 2022).

Mastery Experience: Situations in which a person successfully completes a challenging task or overcomes a difficulty (Bandura, 1977, 1986). Mastery experiences relate to success which builds belief in self-efficacy.

Reciprocal Determinism: The central concept of SCT, referring to the dynamic and reciprocal interaction of individuals with shared learned experiences, the external social context, and responses to stimuli used to achieve goals (e.g., a student who believes they can succeed at a task is more likely to exert the necessary effort needed to achieve success) (Bandura, 1977, 1986, 1997).

Self-Efficacy: The belief that an individual has control over and is capable of executing behavior to achieve a desired outcome. Self-efficacy reflects confidence in the ability to exert control over one's motivation, behavior, and social environment (Bandura, 1977, 1986, 1997).

Social Cognitive Theory: A learning theory emphasizing the social context in which individuals are active agents who can influence and be influenced by the environment (e.g., reciprocal determinism) (Bandura, 1977, 1986, 1997).

Special settings for justice-involved juveniles: K-12 correctional education or an alternative setting, limited to secondary sites or school facilities serving. Alternative settings vary by state, based on the program's beneficiaries, location, offerings, and structure (Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2022). For the purpose of this study, alternative settings refer to separate school settings addressing elementary, middle, and/or secondary grade level students with behavioral problems, at-risk students, students unable to benefit from regular school due to behavior, or youth detained or incarcerated.

Teacher Self-Efficacy (TSE): A teacher's belief in their capability to promote student engagement and learning (Bandura, 1977, 1986; Tschannen-Moran& Woolfolk Hoy, 2001).

Vicarious Experience: The process by which individuals can learn effectively by observing another person's actions, understanding their success or failure, and then imagining themselves taking the appropriate course of action (Bandura, 1977, 1986, 1997).

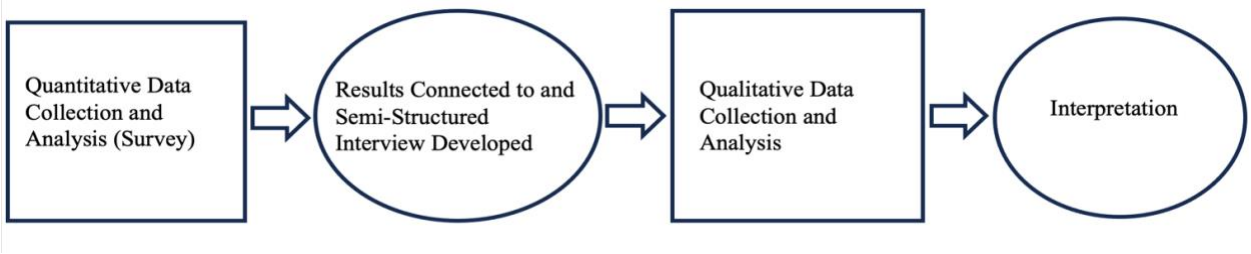
Verbal Persuasion (also Social Verbal Persuasion): Self-efficacy beliefs can be influenced through verbal or physical communication and encouragement from significant others (Bandura, 1977, 1986, 1997).

Brief Overview of Proposed Methods

This explanatory sequential mixed-method study aims to investigate current characteristics and levels of TSE while identifying sources of high levels of self-efficacy beliefs among educators working with justice-involved juveniles. Figure 3 depicts the flow and integration of data through an explanatory sequential mixed-methods model.

Figure 3

Explanatory Sequential Mixed Methods Model



Quantitative Phase

Purposive sampling was employed to target educators who have, are currently, or plan to teach in special setting schools for youth involved with the juvenile justice system. A demographic survey was administered digitally through Qualtrics to collect data on characteristics including age, race, education level, degree or specialty, years teaching, and years teaching in the special setting. Concurrently, the Teachers' Sense of Efficacy Scale (TSES) long version (Tschannen-Moran & Woolfolk Hoy, 2001) and the Sources of Self-Efficacy Inventory ([SOSI] Kieffer & Henson, 2000) were administered via Qualtrics. The TSES was used to measure total teacher efficacy levels, while the SOSI measured the four sources of self-efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states). Statistical analysis was used to determine means, standard deviations, differences, and correlations to thoroughly explore these variables.

Qualitative Phase

The qualitative segment of this study attempted to delve into personal reflections that lent themselves to analysis through descriptive inquiry (Creswell & Plano Clark, 2018). I used maximum variation sampling, which contains cases that are purposefully as different from each other as possible (Kahlke, 2014). Participants were chosen based on high scores on the TSES and a high score on at least one of the four sources of efficacy. Additionally, an attempt was

made to use a diverse range of participants with varying experience and education levels from different U. S. geographical locations.

Interviews were conducted via Zoom, transcribed verbatim, and coded using open coding (Creswell & Creswell 2018; Creswell & Poth, 2018). Interviews were scheduled and completed according to participant preference and schedule. Interview questions were developed from observations based on patterns from the quantitative data and previous TSE research. All interviews were audio and video recorded to provide nuanced records allowing for consideration and interpretation of participants' dialogue, speech patterns, and behavior. Interviews were transcribed verbatim. Open coding was used to divide the data into individual snippets, or codes (Creswell & Creswell, 2018). Using the constant comparative method, the researcher compared snippets with other snippets to create themes of connection (Creswell & Poth, 2018).

Qualitative description can be particularly useful in mixed methods because of the descriptive breadth which blends well with quantitative methods (Neergaard et al., 2009). Employing a generic qualitative approach to the data, I sought to understand how this population of educators interpret, construct, or make meaning of the world and their experiences (Kahlke, 2014). I was especially interested in exploring participant perceptions of their self-efficacy, which is well addressed through a descriptive qualitative approach. The generic qualitative approach lends itself to a rich description of the phenomenon under investigation, is generally highly inductive, and uses open codes, categories, and thematic analysis to identify commonalities (Lim, 2011).

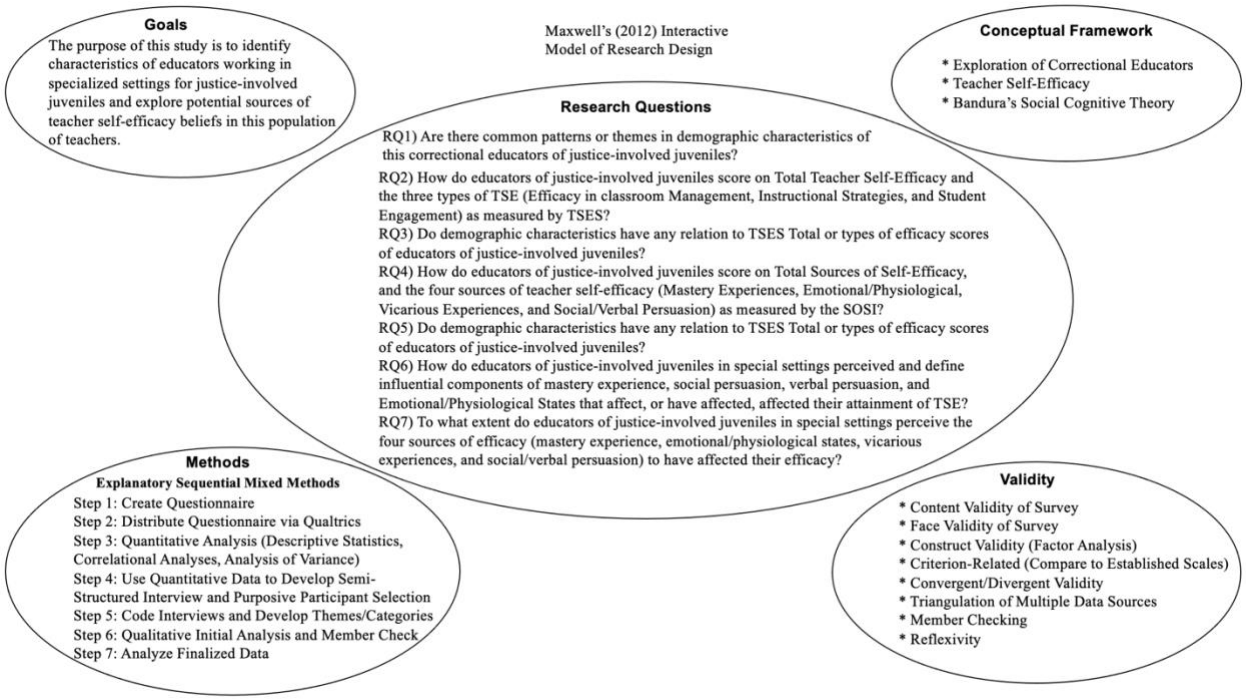
Mixing Method

In explanatory sequential research, the researcher is interested in collecting and analyzing quantitative data followed by a second phase of qualitative data collection and analysis (Creswell

& Plano Clark, 2018). The integration of quantitative and qualitative data occurs at more than one point in this type of research (Creswell & Plano Clark, 2018). In this study, the integration of findings from the quantitative results were used to assist in the development of questions for the qualitative portion. A second point of mixing occurred after all data had been collected and analyzed individually. This final point of integration involved reflection on quantitative and qualitative findings to compare how the findings did or did not correlate with TSE scores. See Figure 4 for a concept map representing the research plan.

Figure 4

Concept Map



Conclusion

Justice-involved juveniles are a population of youth who have a myriad of academic, behavioral, and social challenges that contribute to the complexity of their education. This suggests the need for highly qualified educators within the juvenile correctional field. Yet, there

are suggestions of a deficit in high-quality teachers in residential facilities in comparison to their peers not placed in residential settings. This explanatory sequential mixed-methods research study, based in the theoretical frameworks of Social Cognitive Theory and teacher self-efficacy (TSE), sought to explore characteristics of educators of justice-involved juveniles, their feelings of efficacy, and how they had developed these feelings. Of special interest was through which source of efficacy educators most frequently relied on to develop TSE.

Chapter 2

Review of the Literature

This section offers an overview of the literature relevant to the present study in domains of Social Cognitive Theory (SCT), self-efficacy, Teacher Self-Efficacy (TSE), and TSE among educators of justice-involved juveniles. Literature was sourced from electronic databases (e.g., Academic Search Complete, ERIC, Google Scholar) and in-print materials. The chapter commences with an exploration of the theoretical and conceptual frameworks guiding the study. Subsequently, it presents an overview of the current landscape of educators working with justice-involved youth in special settings, identifying gaps in the literature that focus on TSE. An initial review of current professional literature resulted in limited empirical research. Since I found a lack of literature explicitly related to TSE in educators working with justice-involved juveniles in special settings, a systematic literature review was conducted to discern trends and patterns in demographics and training experiences within this educator population. Finally, the chapter concludes with a synthesis of literature outlining the characteristics of educators working with justice-involved juveniles in special settings, alongside a comprehensive review of TSE literature within this specific context.

Social Cognitive Theory and Self-Efficacy

As human beings we possess the ability to reflect on our thought processes, make judgements about our perceptions, and assess how we apply information drawn from memory (Flavell, 1979). These cognitive functions, identified as metacognitive processes, can lead to heightened levels of achievement and success (Flavell, 1979; Lu & Gilmore, 2005; Rahimi & Abedini, 2019). For instance, the phrase *mind over matter* is a metaphor for using high

motivation to overcome difficult tasks, a concept that emphasizes the potency of belief over external circumstances (Shapiro et al., 2004). Another phrase, *boss your brain*, underscores our capacity to direct cognitive faculties, as seen in practices like employing talk-aloud techniques during task completion (Robbins, 2005). Both expressions accentuate our potential to acknowledge and regulate our own cognitive processes and beliefs while developing and improving our abilities. This concept of belief in one's capabilities can be better defined as self-efficacy, and involves the regulation of functioning through cognitive, emotional, and decisional processes (Bandura, 1997; Benight & Bandura, 2004).

The development of self-efficacy holds profound implications for learning (Ashton & Webb, 1986; Bandura, 1977; Mojavezi & Tamiz, 2012; Shahzad & Naureen, 2017). Not only are a student's efficacy beliefs pivotal for successful learning, but research also underscores the significance of educators possessing high self-efficacy (Ashton & Webb, 1986; Chu & Garcia, 2018; Dellinger et al., 2008; Pearman et al., 2021). A simplified definition of general self-efficacy pertains to an individual's belief in their capability to achieve and excel at a specified level of performance (Bandura, 1977, 1989, 1997). Therefore, TSE can be described as an educator's personal beliefs in their ability to execute specific teaching tasks with a designated level of proficiency within a specified context (Dellinger et al., 2008). Although these overarching concepts appear straightforward, they encompass nuances that extend beyond concise definitions. To gain a comprehensive grasp of self-efficacy, I turn to Social Cognitive Theory (SCT).

Overview of Social Cognitive Theory

Albert Bandura formulated Social Learning Theory, later referred to as SCT, grounded in the concept that learning is influenced by cognitive, behavioral, and environmental factors

(Bandura, 1977, 1986). Additionally, individuals and their environments mutually influence each other in a reciprocal fashion (Bandura, 1977). Therefore, individuals, as proactive agents, have the capacity to both shape and be shaped by their environment. This principle of reciprocal determinism constitutes the core of SCT and highlights the dynamic interplay of individuals (who have learned experiences), their environment (external social context), and their behavior (response to stimuli toward attaining objectives) (Bandura 1977, 1986). Furthermore, individuals can learn new behaviors by observing the actions of others and the consequences thereof (Bandura 1977, 1986). Positive consequences tend to encourage emulation, whereas behaviors linked to unfavorable outcomes are typically avoided (Bandura 1977, 1986).

Understanding Self-Efficacy

A central tenet of SCT is the pursuit of agency and mastery over one's existence (Bandura, 1977). Arguably, no facet of human agency is more significant as an individuals' conviction in their efficacy to manage their own behavior and exercise control over the events that happen in their lives (Bandura, 1997, 1989). Self-efficacy is the conviction a person has in their ability to exert control over their own motivation, conduct, and social conditions (Bandura, 1997). Bandura posits that self-efficacy beliefs are pivotal individual determinants within the framework of human agency - a person's capacity to act (Bandura, 1977, 1986, 1997). Self-efficacy is a rating of what a person "can" do (Williams et al., 2020). It encompasses the perception of having the physical or mental competence to execute a specific activity (Bandura, 1997; Williams et al., 2020). Self-efficacy beliefs mediate the interplay between an individual's knowledge and their actions while interacting with their environment (Bandura, 1997). A lack of faith in one's capacity to generate desired outcomes can dampen motivation to act (Bandura,

1998). For instance, a student who does not believe in her ability to be successful on an exam (self-efficacy) is less inclined to invest the necessary effort to study (behavior).

Essentially, individualized learning and behavioral processes emerge from a synergy of personal convictions and experiences, leading to diverse degrees of self-efficacy (Bandura, 1977). This personalized dynamic hinges on the concept of human agency – people's potential to influence the course of events via actions (Bandura, 1989). Human agency consists of four factors: intentionality, forethought, self-reactiveness, and self-reflectiveness (Bandura, 1989). Intentionality denotes intentions accompanied by action plans and strategies (Lu & Gilmore, 2005; Rahimi & Abedini, 2019). Forethought involves goal setting and anticipatory foresight guiding actions and effort (Lu & Gilmore, 2005; Rahimi & Abedini, 2019. Self-reactiveness and self-reflectiveness entail regulating behavior and function while maintaining self-awareness and reflecting on personal efficacy (Lu & Gilmore, 2005; Rahimi & Abedini, 2019). This involves evaluating the soundness of decisions and actions and adapting as necessary (Bandura, 1989).

In this way, self-efficacy encapsulates an individual's beliefs in their capability to contend with challenges (Bandura, 1977). Bandura posits that self-efficacy beliefs correlate with perceptions of stress, life satisfaction, and achievements in diverse spheres of functioning (Bandura, 1997). People confident in managing life's inevitable ups and downs experience less stress over perceived problems (Bandura, 1997; Lu & Gilmore, 2005). In contrast, individuals with diminished self-efficacy may perceive the world as being full of uncertainties and perils, harboring doubts about their ability to face these threats – whether actual or imagined (Dellinger et al., 2008). Appraisals of one's coping capabilities and aspects of the environment influence perceptions of potential risk or safety (Bandura, 1997). For instance, in studies investigating perceived control, individuals led to believe they possess some degree of control over adverse

events exhibit lower levels of physiological arousal and diminished performance impairment compared to lacking such belief, despite both groups being subjected to identical adverse events (e.g., Glass et al., 1973; Litt et al., 1993; Pagnini et al., 2016).

Furthermore, personal efficacy plays a significant role in motivation (Bandura, 1977; Benight & Bandura, 2004). Ryan and Deci (2000) identified self-efficacy as a key driver of intrinsic motivation, which is rooted in personal gratification or enjoyment. Someone expecting a good outcome is more likely to be motivated to complete the task. In contrast, one has little reason to persevere in the face of adversity if the perceived outcome is failure (Bandura, 1997; Lu & Gilmore, 2005). Therefore, self-efficacy beliefs regulate human functioning through cognitive, motivational, affective, and decisional processes (Bandura, 1997; Benight & Bandura, 2004). These elements shape individuals' self-motivation, persistence in challenges, emotional well-being, and whether they perceive themselves in an empowering or debilitating light (Bandura, 1997; Lu & Gilmore, 2005; Robbins, 2005). Fostering this capacity to exert control amid stressful situations fosters resilience (Bandura, 1997; Benight & Bandura, 2004; Lu & Gilmore, 2005). In this way we see the reciprocal effect of efficacy where efficacy beliefs drive action, success reinforces efficacy, and the cycle continues.

Identifying Nuances of Self-Efficacy

Efficacy beliefs are dynamic character traits which are dependent on active and learned systems of belief within an individual's personal situation (Bandura, 1977, 1997). This means they can be changed for better or worse. Positive experiences strengthen self-efficacy, whereas failures impede it (Bandura, 1977, 1997). Efficacy development is also influenced by environment factors, behavioral dynamics, individual personality traits, personal experiences, and cognitive processes such as information acquisition, processing, and comprehension

(Bandura, 1977, 1986, 1997). As such, self-efficacy is highly personal and closely interlinked with an individual's background, culture, and social situation (Luszczynska, et al., 2005). Moreover, self-efficacy beliefs are task and situation specific (Bandura 1977, 1986, 1997). For instance, a person may possess high self-efficacy for written language but harbor a lower perceived competence in mathematics.

Self-efficacy beliefs are not only competence-based, but also action-related (Bandura, 1997). They shape personal motivational processes and behaviors, significantly influencing the way people think and act (Ryan & Deci, 2000). Individuals with elevated self-efficacy often choose more challenging undertakings, set higher goals, invest greater effort, and are more persistent in goal attainment compared to those with diminished self-efficacy (Luszczynska et al., 2005). Heightened self-efficacy also leads to effective problem solving and cognitive appraisal of stress-laden scenarios (Bandura, 1997; Lusczynska et al., 2005). In contrast, reduced self-efficacy is associated with negative emotions and a sense of helplessness (Bandura, 1997; Luszczynska et al., 2005). Optimism, self-regulation, self-esteem, and orientation towards the future display positive associations with generalized self-efficacy (Lusczynska et al., 2005). Overall, individuals with heightened self-efficacy levels tend to exhibit greater satisfaction in their social life and occupation (Bandura, 2012; Lu & Gilmore, 2005).

There is evidence attesting to the predictive impact of efficacy beliefs human performance quality (Benight & Bandura, 2004). Several studies indicate a strong predictive role of self-efficacy in academic achievement (Gegenfurtner et al., 2013; Lusczynska et al., 2005; Stajkovic & Luthans, 1998; Valentine, et al., 2004), physical activity performance (Bauman et al., 2012), and successful transformations across diverse health-related scenarios such as smoking cessation (Gwaltney et al., 2009), healthy eating (AbuSabha & Achterbert, 1997), and

alcohol abstinence (Adamson et al., 2009). Moreover, evidence substantiates self-efficacy's constructive influence on job performance and its role in predicting job burnout (Shoji et al., 2015). Performance-based self-efficacy positively predicts training transference, indicating people with robust self-efficacy are more adept at applying newly acquired knowledge and skills in practical work settings (Ggenfurtner et al., 2013). Although a recent meta-meta-analysis found diminishing predictive effects of self-efficacy over time, meta-regression hints at an increasing trend in self-efficacy scores in intervention studies over time (Jiao et al., 2021). This suggests current interventions designed to enhance self-efficacy are yielding a consistent upsurge in self-efficacy scores.

Distinguishing Self-Efficacy from Analogous Constructs

To encapsulate the essence of self-efficacy, comparative contrast with other concepts is useful. Notable distinctions emerge between self-efficacy, self-esteem, locus of control, outcome expectations, and motivation. Pastorelli et al. (2001) indicate self-efficacy is differentiated from self-esteem in that the former involves judgements of capability, whereas self-esteem involves judgements of self-worth. Nonetheless, self-esteem and self-efficacy are intertwined. Self-efficacy predicts the objectives individuals set for themselves, thereby impacting achievements and consequently self-esteem (Bandura, 1997; Robbins, 2005; Schunk & Pajares, 2005; Zimmerman, 2000). Self-esteem pertains to a sense of personal value, while self-efficacy concerns judgements of personal capacity for action (Bandura, 1997). Individuals with elevated self-esteem typically possess high self-efficacy, as they tend to undertake more challenging tasks compared to those with diminished self-esteem (Lu & Gilmore, 2005). Low self-efficacy is linked with lower self-esteem and an inclination towards pessimistic views of accomplishments or achievements (Bandura, 1997; Robbins, 2005).

Locus of control is also often confused with self-efficacy, yet they exhibit distinctive features. Locus of control is concerned with whether one's fate is determined and controlled by one's actions, or by external forces the individual has no control over (Bandura, 1997; Rotter, 1966). The primary difference is that self-efficacy is rooted in the belief that one can attain specific levels of achievement, whereas locus of control focuses on where the motivation to act is coming from. Locus of control pertains to attribution for causing outcomes - internal agency versus external causation - while self-efficacy beliefs refer to the assessment of personal competence (Bandura, 1997; Rotter, 1966). Bandura further differentiates the two concepts by asserting that perceived self-efficacy is a more accurate predictor of diverse forms of behaviors than is locus of control (Bandura, 1997).

Efficacy expectations and outcome expectations are also frequently used interchangeably, yet Bandura distinguishes between the two by defining efficacy expectations as central to beliefs about the feasibility of performing a particular activity (Bandura, 1977, 1986, 1997). In contrast outcome expectations involve convictions about whether certain behaviors lead to specific outcomes (Bandura, 1977, 1986, 1997). Efficacy expectations predominantly concern the capability to effectively execute a behavior, ultimately leading to the desired outcome.
This is supported by a more recent study which suggests assessments of self-efficacy and their ensuing results might be complicated by perceptions of motivation (Williams et al., 2020). One approach to mitigate the influence of heightened motivation levels has been to append self-efficacy rating scales to include "if I wanted to" at the end of rating items (Williams et al., 2020). Bandura counters these additions, asserting that such phrasing diminishes the validity of the assessment and is inconsistent with SCT (Bandura, 1995). Given that Bandura's definition of

self-efficacy incorporates “can” as a literal interpretation of capability (Bandura, 1997), it is logical to construe self-efficacy as “can-do” rather than “want-to-do.”

Exploring Teacher Self-Efficacy

In educational contexts, TSE was initially identified and measured by two research groups in the 1970s (Berman & McLaughlin, 1977; Armor et al., 1976). Both groups used items derived from locus of control theory to assess teachers’ beliefs regarding their ability to influence student outcomes. More recently, it’s understood that higher levels of TSE contribute to enhanced teacher confidence (Pearman et al., 2021; Schwarzer & Hallum, 2008; Ware & Kitsantas, 2007), innovative teaching practices (Bandura, 1997, Chen & Chu, 2014; Goddard et al., 2000; Good & Brophy, 2003; Pearman et al., 2021; Schwarzer & Hallum, 2008; Tschannen-Moran & Woolfolk Hoy, 2001; Ware & Kitsantas, 2007), improved instructional strategies (Allinder, 1994; Chwalitsz et al., 1992; Ross, 1998; Tschannen-Moran & Woolfolk Hoy, 2001), higher expectations (Allinder, 1994; Chwalitsz et al., 1992; Gibson & Dembo, 1984; Goddard et al., 2000; Ross, 1998; Shahzad & Naureen, 2017; Tschannen-Moran & Woolfolk Hoy, 2001), increased student engagement (Allinder, 1994; Chwalitsz et al., 1992; Good & Brophy, 2003; Ross, 1998; Tschannen-Moran & Woolfolk Hoy, 2001), and as protective factors against burnout and attrition (Allinder, 1994; Chwalitsz et al., 1992; Cohen, 1988; Pajares & Usher, 2008; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001; Ware & Kitsantas, 2007).

Teachers with elevated self-efficacy tend to display higher motivation, which in turn correlates with higher academic achievement and motivation to learn (Huang, 2012). Highly efficacious teachers demonstrate greater perseverance, (Bandura, 1997, Caprara, et al, 2003; Chen & Chu, 2014; Goddard et al., 2000), and adeptness in overcoming temporary setbacks

(Bandura, 1997; Goddard et al., 2000). These teachers often apply management techniques to foster student autonomy (Ross, 1998; Shahzad & Naureen, 2017; Wang et al., 2016), and display less criticism toward students when they make mistakes (Shahzad & Naureen, 2017; Wang et al., 2016). Additionally, teachers with heightened self-efficacy are more composed when managing and resolving problems, often responding positively in challenging situations (Poulou & Norwich, 2002). This includes offering support and assistance with students' emotional and behavioral problems (Poulou & Norwich, 2002). Highly self-efficacious teachers also invest more effort in lesson planning, organization, and delivery (Allinder, 1994; Chwalitsz et al., 1992; Ross, 1998; Wang et al., 2016). They often possess enhanced instructional skills, communication abilities, and adeptness in problem-solving (Ashton & Webb, 1986). Moreover, highly efficacious teachers prioritize teaching, supervising, and facilitating student work over controlling student behavior (Wang et al., 2016).

Influence of TSE on Teaching Commitment and Retention

TSE influences teaching commitment as well as teacher performance (Caprara, et al, 2003; Klassen & Tze, 2014; Ware & Kitsantas, 2007). Intriguingly, the relation between self-efficacy and commitment to the teaching profession significantly increases over time, albeit marginally (Jiao et al., 2021). Research also suggests teacher efficacy is closely related to enthusiasm for teaching, job satisfaction, and burnout prevention (Bandura, 1997; Caprara et al., 2003; Goddard et al., 2000; Klassen & Tze, 2014; Ruble et al., 2001; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2007; Wang et al, 2016).

Teachers with high self-efficacy tend to report lower stress levels (Ware & Kitsantas, 2007). In contrast, teachers with lower self-efficacy are more likely to become frustrated when classroom routines are disrupted (Gibson & Dembo, 1984; Woolfolk et al., 1990; Wang et al.,

2016). Educators with robust self-efficacy exhibit a greater willingness to support and manage students' emotional and behavioral challenges (Poulou & Norwich, 2002). For instance, Shahzad and Naureen (2017) found that more efficacious teachers were better equipped to solve problems and respond positively in the face of difficult situations. Additionally, teachers possessing higher levels of efficacy tend to create more conducive learning environments that are planned and organized yet adaptable to meet students' needs (Wang et al., 2016).

Notably, poor self-efficacy may play a significant role in burnout (Bandura, 1986; Caprara et al., 2003; Pajares & Usher, 2008). For instance, a preliminary investigation of self-efficacy of educators working with students with autism found a significant association between self-efficacy in classroom management and teacher burnout (Ruble et al., 2011). There is some evidence that poor self-efficacy in classroom management and subsequent burnout might stem from inadequate management skills (Bandura, 1986). These findings suggest burnout is closely related to classroom dynamics and teachers' confidence in handling them (Ruble et al., 2011). This is supported by Bandura (1997), who reported people with low self-efficacy are more likely to have low self-esteem and feel pessimistically about their personal accomplishments.

Insights from Preservice Teachers

Research on preservice teachers' self-efficacy lends additional insight into the TSE construct. Educators with higher education levels often display higher levels of self-efficacy (Shaukat & Iqbal, 2012). Moreover, novice teachers with stronger self-efficacy are more likely to persist and remain in the teaching profession (Knobloch & Whittington, 2002). Preservice teachers often display varying perceptions of self-efficacy across different teaching expectations (Klassen & Tze, 2014; Tschannen-Moran & Woolfolk Hoy, 2007; Woolfolk Hoy & Davis, 2006). While they may feel competent in providing caring and supportive environments and

believe in their ability to employ diverse teaching methods to enhance student learning, they might encounter challenges related to curriculum delivery and meeting the needs of culturally and linguistically diverse students (Anderson et al., 2009; Tschannen-Moran & Woolfolk Hoy, 2007; Woolfolk Hoy & Davis, 2006).

Since preservice teachers have not had the opportunity to accumulate mastery experiences, their self-efficacy may be more closely linked with alternative methods of self-efficacy development (Shahzad & Naureen, 2017). In example, positive personal attributes and dispositions, such as extroversion are associated with more confidence, whereas neuroticism is negatively correlated with self-efficacy (Bandura, 1986; Tschannen-Moran & Woolfolk Hoy, 2007). This implies that preservice teachers who feel less prepared to address classroom challenges might experience negative emotions, anxiety, and general psychological distress due to lower self-efficacy (Ashton & Webb, 1986; Shahzad & Naureen, 2017).

TSE and Student Outcomes

TSE plays a constructive role in student performance (Bandura, 1997; Dellinger, et al., 2008) with lasting implications for student success (Shahzad & Naureen, 2017). Academic self-efficacy influences students' academic performances and learning motivation levels (Jiao et al., 2021; Usher & Pajares, 2008). As previously discussed, self-efficacy beliefs are changeable and will vary depending on the environment and the task in question, a concept highlighted in academic self-efficacy. In academic situations there are two separate populations – teachers and students – both with distinct self-efficacy characteristics (Bandura, 1997; Tschannen-Moran & Woolfolk Hoy, 2007). A dynamic interplay between these two groups fosters a positive association where each influence the other (Tschannen-Moran & Woolfolk Hoy, 2001). Higher

levels of self-efficacy in teachers can lead to heightened self-efficacy in students, which, in turn, enhances TSE, and so forth.

Research indicates a strong correlation between TSE and student academic achievement (Ashton & Webb, 1986; Shahzad & Naureen, 2017). Self-efficacy beliefs influence the development of cognitive processes, including learning regulation and mastery of various competencies (Bandura, 1993; Zimmerman, 1995). These processes exert influence on motivation and academic achievement. Teachers with robust self-efficacy can better motivate students and foster their cognitive development (Bandura, 1994; Mojavezi, 2012), behavior (Mojavezi, 2012), learning (Mojavezi, 2012; Shaukat & Iqbal, 2012; Tai et al, 2012), and achievement (Huang, 2012; Mojavezi, 2012; Shahzad & Naureen, 2017; Shaukat & Iqbal, 2012). Students with higher self-efficacy are more successful at problem solving and have higher levels of motivation and academic achievement levels (Bandura, 1997; Ruble et al., 2011). Therefore, students who believe they can perform at the provided levels have higher motivation and academic attainment. Self-efficacy also positively predicts the transfer of skills acquired through training (Gegenfurtner et al., 2013). Individuals with high self-efficacy can effectively apply newly acquired knowledge and skills in practical settings (Gegenfurtner et al., 2013).

Sources of TSE

Bandura asserts that judgements of efficacy are made as individuals weigh and integrate four sources of information: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional arousal (Bandura, 1997). Among these, mastery experiences are likely the most influential source of self-efficacy (Bandura, 1997; Woolfolk, 1998).

Mastery Experiences

Mastery experiences involve the interpretation of past experiences as indicators of self-efficacy (Bandura, 1997; Ruble et al., 2011: Usher & Pajares, 2008; Woolfolk, 1998). In essence, people make judgements primarily based on their previous successes or failures in the same or similar situations. The completion of a task successfully bolsters self-efficacy, while failure diminishes it (Bandura, 1977, 1997). For instance, successful task accomplishment among preservice teachers fosters increased levels of intrinsic and extrinsic motivation, thereby contributing to the growth of self-efficacy (Anderson et al., 2009). Field experiences are a common method for cultivating self-efficacy in teacher candidates. Other successful strategies include modeling and role-playing scenarios that expose preservice teachers to potential classroom challenges.

Vicarious Experiences

Vicarious experiences also correlate with efficacy development (Bandura, 1986; Bandura, 1997; Ruble et al., 2011). Bandura suggests that learners observe and emulate the behavior of others in a mutually interactive relationship, which is integral to the efficacy building process (Bandura, 1986, 1997). Further, individuals are more likely to observe and emulate the behaviors of individuals who possess characteristics or attributes similar to their own. Observing and modeling the behavior of others creates a symbiotic effect which contributes to a learner's judgements of their own self-efficacy (Bandura, 1986; Bandura, 1997; Ruble et al., 2011), and hearkens back to the social dimensions of SCT.

Verbal Persuasion

Verbal persuasion, sometimes referred to as social persuasion or social/verbal persuasion, alludes to the messages of encouragement or criticism one gets from other individuals (Bandura, 1977, 1997). Positive messages enhance perceptions of self-efficacy, while criticisms are likely

to undermine efficacy beliefs (Bandura, 1977, 1997). Social persuasion includes coaching, mentoring, and providing evaluative feedback. It is particularly vital for improving self-efficacy as it leads individuals, through suggestion, to believe they can effectively manage a particular set of variables (Bandura, 1977, 1997).

Billingsly and Cross (1992) found positive messages depends on what is construed from one's own observations and from external feedback. In other words, people's judgements of their capabilities are strongly influenced by what they discern as significant based on watching others and from what others appear to place importance. Therefore, self-efficacy develops within the context of strong social support (Bandura, 1977). Teachers who perceive higher levels of support from administrators are less stressed, more committed, and more satisfied with their jobs compared to those with lower perceive support (Billingsly & Cross, 1992). Educators who perceive their administration as supportive and encouraging are four times more likely to stay in their jobs (Boe et al., 1999). Moreover, well-supported teachers report lower levels of emotional exhaustion (Ruble et al., 2011), suggesting that social support may act as a buffer against burnout (Cohen, 1988; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2007). Practicum teachers perceive personal relationships and positive parental feedback as dimensions of success, underscoring the role of verbal persuasion (Anderson et al., 2009). Constructive feedback and verbal persuasion garnered during professional development opportunities can enhance teaching tasks and efficacy (Bandura, 1997).

Additionally social and cultural messages within one's environment affect efficacy beliefs (Bandura, 1997, 2012). For instance, stereotypical gender-oriented occupations are closely linked to self-efficacy (Bandura et al., 1997). Girls often judge themselves to have higher efficacy for careers in service, caretaking, and teaching, whereas boys judge themselves more

efficacious in science, technology, and physically active occupations (Bandura, 1997; Lu & Gilmore, 2005). Children's beliefs of their occupational efficacy have already begun to form as early as middle school (Bandura, 1997; Zimmerman, 2000). These guide their occupational interests in ways that are aligned with their efficacy beliefs, social, self-regulatory and academic efficacy (Bandura et al., 1997). In short, these social and cultural messages can have early onset and a long-lasting impact.

Emotional/Physiological States

The fourth source of information for self-efficacy judgements encompasses physiological and emotional factors such as stress, excitement, fear, and joy (Bandura, 1997). Both positive and negative emotions, as well as states of emotional arousal, play a role (Bandura, 1977, 1997). In a threatening situation, highly self-efficacious individuals may experience fewer negative emotions, potentially enhancing their sense of capability in mastering challenging situations (Luszczynska et al., 2005). Conversely, heightened emotional arousal might negatively influence efficacy feelings, particularly in stressful or difficult situations (Bandura, 1977, 1997; Tschannen-Moran & Woolfolk Hoy, 2007). This is an important caveat for educators working with special education or justice-involved juveniles, as maintaining high efficacy levels can be challenging for teachers working with struggling students, given its potential threat to their professional competence (Tschannen-Moran & Woolfolk Hoy, 2007; Woolfolk Hoy & Spero, 2005).

Personal characteristics also influence perceptions of efficacy (Bandura, 2012; Jamil et al, 2012). This may especially be true of preservice teachers because they have had less time in the classroom to develop mastery experiences and are relying more heavily on pre-existing characteristics (Ashton & Webb, 1986; Tschannen-Moran & Woolfolk Hoy, 2007). For instance,

pre-service teachers with high levels of extraversion (characterized by positivity, sociability, and outgoingness) feel more confident about their success in teaching (Jamil et al, 2012). In contrast, neuroticism (involving negative affect, anxiety, and psychological distress) is associated with a perception of being less prepared to face the challenges of the classroom (Jamil et al., 2012). This awareness is crucial for educator training programs to enable the development of coping strategies and behaviors in preservice teachers (McAdams & Pals, 2006; McCrae et al., 2000). Particularly in the initial teaching years, cultivating a robust sense of TSE is pivotal, as it develops persistence and the likelihood of staying in the profession (Knobloch & Whittington, 2002).

TSE of Educators in Special Settings for Justice-Involved Juveniles

These findings may be especially influential for educators catering to justice-involved juveniles and other unique populations. Ensuring that this group of vulnerable students has access to high quality teachers trained to work in a detention setting is a significant challenge (Froemel, 2020). In many cases, these educators report understaffing (Koyama, 2012) and undertraining (Gagnon & Swank, 2021). Furthermore, it is important to acknowledge that even highly self-efficacious teachers may struggle to maintain high levels of efficacy when working with low-achieving students (Woolfolk Hoy & Spero, 2005). Many correctional educators are providing instruction to youth with diagnosed and undiagnosed disabilities. Even without being in a segregated facility, such as when working with justice-involved juveniles, special education teachers are faced with multiple challenges which pose legitimate concerns for increased stress, a factor associated with teacher attrition (Ashton &. Webb, 1986; Billingsley & Bettini, 2019; Billingsly et al., 2004). In fact, multiple researchers have found attrition rates are higher for special educators compared to other groups of educators (Billingsley & Bettini, 2019; Luecking

& Fabian, 2000; McLeskey et al., 2004). Consistently researchers have found a critical shortage and need for retaining special education teachers (Cook & Boe, 2007; McLeskey & Billingsley, 2008; Nichols et al., 2008). These issues are exacerbated in specialized settings for justice involved juveniles which allows for a homogenous cluster of youth with unique and challenging behaviors (Froemel, 2020). One way to alleviate such problems is through enhanced TSE, as it has been shown to serve as a barrier to negative outcomes like attrition and job dissatisfaction (Bandura, 1977, 1997; Tschannen-Moran & Woolfolk Hoy, 2007). Understanding the potential sources of self-efficacy for educators of justice-involved juveniles can guide the development of appropriate activities and professional development opportunities.

Measurement of TSE

Measurement of General Self-Efficacy

Measurement of self-efficacy beliefs is usually task or behavior-related and is not result-oriented (Bandura, 1977). These beliefs of ability are founded in one's perception of their ability to execute specific tasks or behaviors, remaining independent of the resulting outcomes. In other words, the measurement is based on the belief of ability, not the resulting product. In the late 1970s, researchers began developing scales to measure an individual's belief in their ability to cope with various challenges. A notable contribution from this era was the development of the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), a widely adopted tool for assessing general self-efficacy. Another widely used measure, The Perceived Self-Efficacy Scale, is not a specific scale, but more of a concept of scales designed to measure a wide variety of domains including academic tasks, athletic performance, and coping with stressful scenarios (Bandura, 2006). While the Perceived Self-Efficacy Scale provides valuable efficacy information within

specific domains, it is not as generalizable, simple, or applicable to widespread research as the Generalized Self-Efficacy Scale (Bandura, 2012).

Measurement and Framework of TSE

In the 1980s, Teacher Self-Efficacy emerged as an important factor in education due to its substantial influence on teacher behaviors, instructional practices, and student outcomes (see Ashton & Webb, 1986; Bandura, 1986; Gibson & Dembo, 1984). An established instrument for measuring TSE is the Teacher Sense of Efficacy Scale ([TSES] Tschannen-Moran & Woolfolk Hoy, 2001), sometimes referred to as the Ohio State Teacher Efficacy Scale (OSTES). Based on the TSES theoretical framework, TSE can be conceptualized into three core domains: self-efficacy in instructional strategies, self-efficacy in classroom management, and self-efficacy in student engagement (Shahzad & Naureen, 2017).

Self-Efficacy in Classroom Management

This domain is related to perceptions of ability to create and maintain a positive and productive classroom, including establishing clear expectations, maintaining discipline, managing student behavior, and promoting a positive learning climate (Tschannen-Moran & Woolfolk Hoy, 2001). Educators with high TSE in classroom management can effectively manage disruptive behaviors and maintain an orderly classroom which is conducive to maximum student engagement (Tschannen-Moran & Woolfolk Hoy, 2001). Attributes of educators excelling in this area include (a) behavior management including confidence in implementing effective strategies and addressing behavioral issues, (b) positive discipline, or the belief that positive reinforcement encourages desired behaviors, (c) relationship building, or the ability to establish and maintain strong teacher-student relationships which contributes to effective

classroom management, (d) consistency, and (e) stress management, or the ability to handle stressful or challenging situations in the classroom (Tschannen-Moran & Woolfolk Hoy, 2001).

Self-Efficacy in Instructional Strategies

This domain pertains to a teacher's perceptions of their ability to implement effective teaching strategies and methods, including designing and delivering impactful lessons (Tschannen-Moran & Woolfolk Hoy, 2001). Educators with robust TSE in this domain believe their teaching practices can make a positive difference in student learning outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). Notable attributes linked to high self-efficacy in instructional strategies include (a) versatility, or a belief they can employ multiple strategies to address diverse student needs, (b) adaptability, or confidence in adjusting strategies to meet student need and progress, (c) innovation, or willingness to try new techniques and incorporate technology effectively, (d) reflective practices, including analyzing and evaluating teaching methods for constant improvement, and (e) persistence, or not giving up easily in the face of challenges (Tschannen-Moran & Woolfolk Hoy, 2001).

Self-Efficacy in Student Engagement

This domain relates to a teacher's ability to motivate and actively engage students in the learning process (Tschannen-Moran & Woolfolk Hoy, 2001). Educators with strong TSE in this area design lessons that encourage student interest and enthusiasm (Tschannen-Moran & Woolfolk Hoy, 2001). Attributes linked to high self-efficacy of teachers with high TSE in student engagement (a) actively promote learning, or facilitate activities that require student participation, (b) provide relevant content that is meaningful to students' lives, (c) develop emotional connections, or have the ability to be interested in, and to empathize with students, (d) design engaging and interactive lessons that stimulate curiosity and creativity, and (e) provide

scaffolding through appropriate support and guidance based on individual students' learning goals and needs (Tschannen-Moran & Woolfolk Hoy, 2001).

In summary, TSE significantly influences instructional effectiveness and best student learning outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). Teachers with high self-efficacy in these three domains are more likely to be innovative, persistent, and successful in teaching practices, which leads to improved learning outcomes for students (Tschannen-Moran & Woolfolk Hoy, 2001). While these domains are usually focused on by TSE scales within general or specific teaching contexts, the unique challenges of working with justice-involved juveniles or other special populations may not be effectively addressed. To date, there are no specific scales or instruments designed for measuring TSE among educators working with justice-involved juveniles. To effectively adapt existing scales, a comprehensive understanding of the characteristics of this education population and their self-efficacy perceptions is required. We cannot expect to improve the quality of educational services for justice-involved juveniles without a thorough understanding of juvenile correctional educator's values, attitudes, and beliefs on correctional education and the students they teach (Clark, 2022).

Educators of Justice-Involved Juveniles and TSE

The literature on educators in special settings associated with the juvenile justice system is sparse, but there are some studies on TSE for working with special populations or with special programs that could be applicable to juvenile correctional educators. For instance, Arterbery (2018) discussed the relationship between teacher efficacy for educating students with disabilities alongside general education peers in the general education class. They delved into teacher perceptions of professional development that impacted levels of efficacy and found significant difference between teacher efficacy in students with disabilities in comparison to their

efficacy for teaching students without disabilities (Arterbery, 2018). This supports the concept that teachers of special populations may need higher levels of TSE indicating a greater need for efficacy.

In another recent study, Safari et al. (2020) used structural equation modeling to find significant positive associations with Iranian English as a Foreign Language (EFL) teachers' self-efficacy, reflective thinking, and job satisfaction. They concluded teachers with a high degree of self-efficacy are more satisfied with their job (Safari et al., 2020). Teachers who are satisfied with their jobs are less likely to leave and more likely to continue in their jobs increasing their ability to build relationships with students (Safari et al., 2020). This is significant because it supports the concept that teachers of special populations need higher levels of efficacy to feel successful, which has direct implications on the education efficacy of the students.

In addition to the importance of TSE, is finding ways to improve self-efficacy. Drawing from SCT, mastery learning may be the most influential of the four sources of self-efficacy (Bandura, 1986, 1997). Hands-on opportunities are often considered the most powerful source contributing to preservice TSE (Clark & Newberry, 2019). Additionally, mastery experiences have been found to greatly benefit preservice teacher's TSE (Cantrell et al., 2003; Clark & Newberry, 2019; Ma et al., 2022; Toombs et al., 2022). Despite the significance of these studies, none have addressed whether and how mastery learning impacts the TSE of educators in special schools and alternative settings associated with the juvenile justice system.

Systematic Literature Review of Educators of Justice-Involved Juveniles Teaching Self-Efficacy

Youth who exhibit severe behavioral problems often require separate settings for their education (Cavendish, 2014; OJJDP, 2019). These settings include alternative school settings,

day schools, residential schools, and juvenile incarceration centers (Cavendish, 2014; OJJDP, 2019). These adolescents often have a myriad of issues needing direct and systematic instruction (Cavendish, 2014; OJJDP, 2019), but who is providing essential opportunities to this group of youth? This systematic review explores nuances in the descriptive characteristics, training, and self-efficacy of correctional educators in the United States. Earlier systematic reviews examined the academic characteristics of incarcerated youth and correctional educational programs (Foley, 2001), as well as special education in juvenile correctional facilities (Forbes, 1991). These reviews are both more than 20 years old, and don't reflect changes in the education and judicial systems made during that time. Therefore, a systematic literature review was conducted to further identify characteristics of educators of justice-involved juveniles. This study extends previous works by updating the literature on characteristics of correctional educators, their training, and how they perceive their ability to work with special populations.

Methods

This systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, Moher et al., 2009).

Eligibility Criteria

To be included in this review, studies had to meet the following pre-established criteria. First, study participants were teachers in alternative settings. Alternative setting definitions vary by state, but most can be classified by a) whom the program serves, b) where the program operates, c) what the program offers, and d) how the program is structured (Porowski, et al, ICF International 2014). For this study, alternative settings were defined as separate school settings who address elementary, middle, and/or secondary grade level students with (a) behavioral

problems, (b) at-risk students, (c) students unable to benefit from regular school due to behavior, or (d) youth detained or incarcerated (Cavendish, 2014; OJJDP, 2019). Second, included studies were teacher-focused (i.e., teacher preparation, TSE, teacher professional development) with *teachers* referring to a certified educator responsible for the main academic instruction of students within a K-12 alternative setting. Third, only empirical research - including single case research, group studies, correlational studies, and qualitative studies – were included in the review. Additionally, studies focused on adult prisons or adult correctional education were excluded. Research involving teachers of special populations in same-setting schools (e.g., behavior focused classroom within the general school setting) was also excluded. Lastly, studies that were subject specific, such as those focused on interventions for literacy or math were excluded, as was research focusing on alternative certification for educators. There were no country or date limitations applied to the literature search.

Information Sources

To conduct a comprehensive literature search, I searched the following databases by Boolean phrase found anywhere in the article: Academic Search Complete, Academic Search Elite, Academic Search Premier, Educational Resource Information Center (ERIC), Psychology and Behavioral Sciences Collection, Social Work Abstracts, APA PsycArticles®, and APA PsycInfo®. I also searched ProQuest Dissertations & Theses Global by abstracts only, as an initial full-text search of dissertations resulted in an overwhelming 20,000 manuscripts. I also conducted first author searches and complete forward and back hand searches using the reference lists from included relevant literature.

Search Strategy and Study Selection

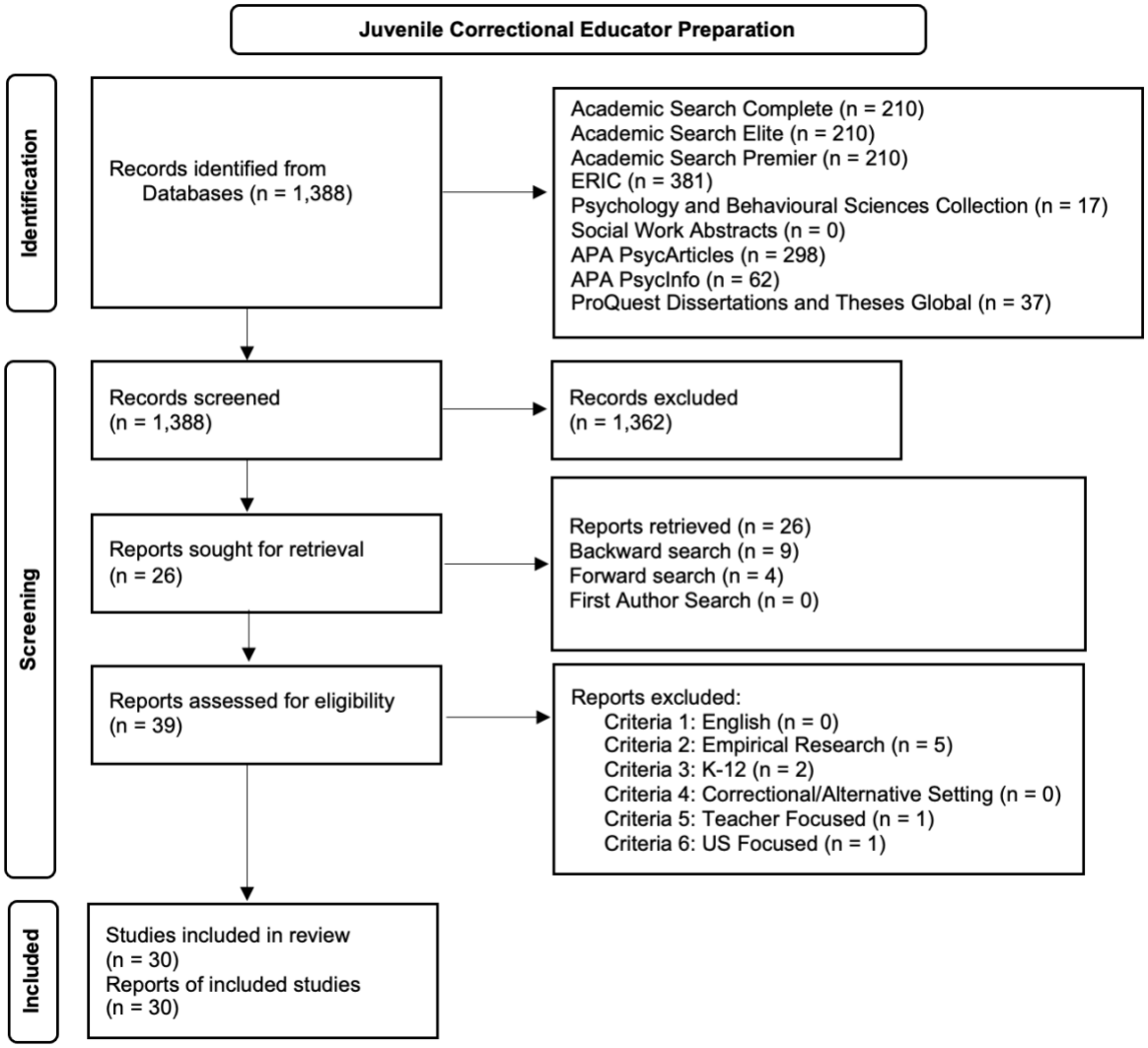
I used the following Boolean phrases in the electronic database search: (“teacher prep*" OR "professional develop*" OR "teacher efficacy" OR "teacher train*" OR "teacher education" OR “teacher develop*”) AND ("correctional" OR "juvenile justice" OR "alternat* setting"). The original search occurred June 8, 2022, and the search was ran again August 26, 2023 (delimited by June 2022 – August 2023). This was done as a year had elapsed between initial perusal of manuscripts and the study completion. A total of 1,388 manuscripts were identified. See Figure 5 for a flowchart depicting the process used for screening and identifying manuscripts.

The author independently screened all titles and abstracts retrieved using the above search terms. Although there is no specific percentage of double-screened articles required for best practices, double screening is considered a best practice for systematic reviews to ensure consistency and to reduce the risk of bias (PRISMA, 2009). A trained graduate student double screened the manuscripts for the inclusion and exclusion criteria. This student double screened approximately 30% of the title and abstracts (n = 407). Double coding was achieved through the Abstrackr software. Interrater reliability for title/abstract screening was 98% (disagreements n = 12). These disagreements were resolved through discussion to reach 100% consensus (Higgins & Green, 2011). Studies that did not meet eligibility criteria at the abstract screening level were excluded (n = 1,362). Twenty-six documents were retrieved for full-text screening. A backward search of the 26 documents identified nine additional manuscripts. A forward search resulted in additional four articles. No articles were added based on a First Author Search. The resulting 39 articles were then assessed for eligibility. This second level of screening was conducted by the author through a gated screening process with five criteria. Studies were (a) in English, (b) empirical research, (c) K-12, (d) in an alternative setting, and (e) teacher focused. A trained graduate student completed full-text screening on 30% (n = 12) of the 39 articles remaining after

title/abstract screening. The researcher and graduate student were in 100% agreement on excluding nine of these and on the final inclusion of 30 studies.

Figure 5

PRISMA Flowchart



Coding

The author independently coded all eligible studies according to source information, setting characteristics, participant characteristics, and training and teacher self-efficacy. Source information included author(s), study design, publication type, publication date, first author

publication summary, recurring journals, and funding. Variables related to setting characteristics included state, community type, school level, school environment, subject or course, average number of students taught, and average number of students with disabilities. Participant characteristics included total participant sample size, participant gender, age, ethnicity, race, position or title, years of teaching experience, years of teaching in the special population, and subjects taught. Lastly, studies were also coded for education, training, or professional development levels of the participants. This included measurement of variables, education level, degree field, training specific to justice-involved juveniles, Teacher self-efficacy, and teacher reported needs.

The same graduate student who participated in the screening process was trained to code manuscripts for study characteristics. The student coded 30% (n = 10) of eligible studies. Training was provided on one article. Before training, IRR for characteristics was at 91.1%. Following training, the remaining nine documents were double-coded. Final IRR of characteristics was 94%. All disagreements were discussed and reviewed to make a final determination for 100% agreement on all items.

Results

Data from the 30 documents were organized according to study characteristics (e.g., source information, setting characteristics, participant characteristics, and influence of self-efficacy), NTACT reporting standards, and AERA reporting standards. My intent is to summarize characteristics and research quality of previous research involving educators of justice-involved juveniles in special settings. To that end, I computed mean averages for each variable by dividing the summed percentages by the total number of studies. For variables with grouped categories (e.g., 1-3 years of teaching, 4-10 years, etc.) I attempted to use the same

groupings reported in the studies. However, categories used by authors varied and did not match perfectly in every document. For categories used by authors that did not use the same ranges that I identified, I included them in the lower range of the category. If the author used a mean rather than categorizing into different levels, I did not include the mean in the averaging of percentages for that category. For much of the analysis I did not include Brennan (2017) because it was a single case study with two participants. This resulted in a mean of 100% or 50% on many of the variables, causing outliers to the rest of the data. Therefore, the study was not included in some of the characteristics' analysis.

Study Characteristics: Source Information

Study characteristics were divided into four sections. The first was source information and included: author(s), study design, publication type, publication date, journals/publications funding, and the source of funding. See Table 1 for a complete description of source information. There were ten documents coded as qualitative research and one article as mixed methods. Nineteen documents were classified as quantitative studies. Of these, 11 were identified as correlational research. Correlational research is not considered to be experimental research as there is no researcher-manipulation of variables (Rubin, 2013). Even so, I chose to include these in my review as correlational research allows for a more comprehensive understanding of the interactions of the different TSE variables involved (Rubin, 2013). Correlational research can reveal associations and patterns in real-world settings, thus providing a more holistic view of the topic (Rubin, 2013).

Table 1

Study Characteristics: Source Information

Document ID	Author(s)	Design	Publication Type	Publication Date	Journal/ Publication	Funding	Funding Source
Anderson_2003	Anderson, Cedric L.	Quant	Diss.	2003	University of Southern California		
Annamma_2015	Annamma, Subini Ancy	Qual	Article	2015	Urban Review	Minority Dissertation Fellowship Award	AERA Minority Fellowship in Education Research Program
Bailey_2007	Craig Bryan Bailey	Qual	Dissertation	2007	Alabama State University		
Barnes_2018	Tia Navalene Barnes, Christina Cipriano, Kathleen McCallops, Cara Cuccuini-Harmon, & Susan E. Rivers	Quant	Article	2018	Emotional and Behavioral Difficulties	Yes	William T. Grant Foundation (180276)
Bloom_1994	Bloom, Bianca A.	Qual	Dissertation	1994	University of San Francisco		
Brennan_2017	Brennan, Kaitlyn M.	Quant	Dissertation	2017	University of Pittsburgh		
Bullock_1994	Bullock, Lyndal M., & McArthur, Patrick	Quant	Article	1994	Education and Treatment of Children-special issue: severe behavior disorders of children and youth		
Byrd_2019	Byrd, Kendra K.	Quant	Dissertation	2019	Concordia University		
Clark_2022	Clark, Joya Helene	Qual	Dissertation	2022	Rutgers, The State		

Cox_2011	Carolyn C. Cox, Joseph D. Visker, Ashley Hartman, Truman State University	Quant	Article	2011	University of New Jersey Current Issues in Education; Mary Lou Fulton Teachers College, Arizona State University		
Ferguson_2013	Ferguson, Scott Tyrone	Quant	Dissertation	2013	Eastern Kentucky University		
Flores_2020	Flores, Helena	Quant	Dissertation	2020	Indiana University		
Francis_1995	Francis, Joan R.	Quant	Dissertation	1995	Nova Southeastern University		
Froemel_2020	Froemel, Daniel	Qual	Dissertation	2020	East Tennessee State University		
Gabel_2016	Gabel, Brian S.	Qual	Dissertation	2016	University of Phoenix		
Gagnon_2021	Gagnon, Joseph Calvin & Swank, Jacqueline M.	Quant	Article	2021	Behavioral Disorders	Internal Grant from College of Education	College of Education, University of Florida
Gilbert_1992	Gilbert, Eben N. Jr.	Quant	Paper Presentation	1992	Mid-South Educational Research Association, Knoxville, TN		
Hayward_2020	Hayward, Felicia M.	Qual	Dissertation	2020	Bowie State University		
Houchins_2004	David E. Houchins, Margaret E. Shippen, Jack Cattret	Quant	Article	2004	Education and Treatment of Children		
Houchins_2006	David E. Houchins, Margaret E. Shippen, and Kristine Jolivette	Quant	Article	2006	Teacher Education and Special Education		

Houchins_2010	David E. Houchins, Margaret E. Shippen, Kim McKeand, Kim Viel-Ruma, Kristine Jolivette, & Anthony J. Guarino	Quant	Article	2010	Education and Treatment of Children		
Houchins_2017	David E. Houchins, Margaret E. Shippen, James Raymond Schwab, & Brandi Ansely	Quant	Article	2017	Journal of Emotional and Behavioral Disorders		
Jurich_2001	Sonia Jurich, Marta Casper, & Kim a. Hull	Mixed Methods	Article	2001	The Journal of Correctional Education	Juvenile Accountability Incentive Block Grant (JAIBG)	Commonwealth of Virginia, Department of Correctional Education
La Bouff_2008	La Bouff, Patrick	Qual	Dissertation	2008	Aurora University		
Mason Williams_2017	Loretta Mason-Williams & Joseph Calvin Gagnon	Quant	Article	2017	The Journal of Special Education		
Moody_2003	Moody, Barbara A.	Qual	Article	2003	The Journal of Correctional Education		
Murphy_2018	Murphy, Kristin M.	Qual	Article	2018	The Journal of Correctional Education		
Painter_2008	Painter, Rebecca Minton	Quant	Dissertation	2008	University of Louisville, KY		
Paulson_1986	Daniel R. Paulson & David A. Allen	Quant	Article	1986	Teacher Education and Special Education		

Roberts_1988	Rob Roberts and Lyndal M. Bullock	Quant	Book Chapter	1988

Of the included publications 14 were journal articles (47%) and 14 were dissertations (47%). One (3%) was a book chapter (Roberts_1988) and one (3%) was a conference paper (Gilbert_1992). The included articles fell roughly into three time periods: the 1990s (20%), the early 2000s (26.7%), and 2010 to current publications (53.3%). Over half of the publications were by first authors who had no other publications (53.3%), whereas three of the researchers contributed to more than one publication included in the review (Houchins, David; Bullock, Lyndal; Gagnon, Joseph Calvin). There was a total of nine journals publishing literature fitting my search criteria. Five of the nine (55.6%) journals were special education focused (e.g., *Emotional and Behavioral Difficulties*, *Behavioral Disorders*, *Teacher Education and Special Education*, *Journal of Emotional and Behavioral Disorders*, and *The Journal of Special Education*) and only one of the nine (11.1%) was a journal related to carceral matters (*Journal of Correctional Education*). Only four of the 30 (13.3%) articles reported receiving funding for their study. One was a fellowship (Annamma_2015) and the other three were grants (Barnes_2018, Gagnon_2021, Jurich_2001). The dissertation publishers varied across universities within the United States, with no repetitions.

Study Characteristics: Setting

The second section of characteristics were those variables relating to study setting. This included geographical area, community type, school level, facility type, subject or course, and average number of students taught. See Table 2 for a complete description of setting information. Not all states were represented within the literature, but nine of the articles (30%) reported participants from multiple states or at the national level. There were four (13.3%) classified as

"western" states and four classified as "mid-western". There was one (3.3%) each for northern United States (Paulson et al., 1986) and MidAtlantic states (Hayward_2020). There were 8 (26.7%) articles based only in southern states, but this percentage increases to 50% when the multiple state/national state studies that had representative southern states are included (Bullock_1994, Byrd_2019; Gagnon_2021; Houchins_2017; Mason Williams_2017; Murphy_2018; Roberts_1998).

Eight of the included studies reported the community-type (e.g.., rural, urban, etc.) with 50% of these reporting mixed community-types. Half (15; 50%) of the studies reported school level. Five of these had students at the secondary level only (33.3%), while ten (66.7%) reported supporting a broader range of juveniles including elementary or junior high students as well as those in secondary grades. Fifteen (50%) of the documents included the type of facility the study was conducted. Of the facility types reported, most reported mixed confinement levels, although one (6%) reported an alternative school setting (Brennan_2017), and one (6%) reported being set in a residential school (Annamma_2015).

Seven (23.3%) of the 30 studies reported on the subject or course taught by participants. All seven (100%) reported educators teaching multiple subjects, rather than a single subject like mathematics or language arts. Brennan_2017 was the only one that specified the total number of students being served educationally by participants, reporting two to nine students per class, with a maximum of ten students possible. All the students served by these participants were identified as having a disability.

Table 2

Study Characteristics: Setting

Document ID	Geographical Area	Community	School Level	Facility Type	Subject or Course	Total Students

Anderson_2003	Western US	All	Secondary	Mixed		
Annamma_2015	Western US			Residential		
Bailey_2007	Southern US	All	Mixed	Mixed	Multiple	
Barnes_2018						
Bloom_1994	Western US	Other	Mixed	Mixed		
Brennan_2017	Multiple States	Urban	Mixed	Alternative		2-9
Bullock_1994	Multiple States					
Byrd_2019	Multiple States			Mixed		
Clark_2022	Eastern US		Secondary			
Cox_2011	Mid-West US	Rural			Multiple	
Ferguson_2013	Eastern US	All	Secondary	Mixed	Multiple	
Flores_2020	Mid-West US		Mixed	Mixed		
Francis_1995	Southern US	Suburban	Mixed			
Froemel_2020	Southern US					
Gabel_2016	Mid-West US	All				
Gagnon_2021	Multiple States		Mixed	Mixed		
Gilbert_1992	Southern US		Mixed			
Hayward_2020	MidAtlantic US			Mixed		
Houchins_2004	Southern US			Mixed		
Houchins_2006	Southern US			Mixed		
Houchins_2010	Multiple States			Mixed		
Houchins_2017	Multiple States			Mixed		
Jurich_2001	Southern US		Mixed	Mixed	Multiple	
La Bouff_2008	Mid-West US		Secondary			

Mason Williams _2017	Multiple States	Secondary	Multiple
Moody_2003	Western US		
Murphy_2018	Multiple States	Mixed	
Painter_2008	Southern US		
Paulson_1986	Northern US		Multiple
Roberts_1988	Multiple States	Mixed	Multiple

Study Characteristics: Participants

The third section on characteristics involved variables relating to description of the participants examined within included literature. These included sample size, participant gender, age, race, other credentials, position or title, years of teaching experience, and years of teaching within the special setting for justice-involved juveniles. See Table 3 for a complete description of study participant characteristics. Study designs varied from single-case design to quantitative survey, and thus consisted of varied numbers of participants. Six studies (20%) reported participant pools of less than ten. Nine of the studies (30%) reported participants pools between 11 and 50 participants, and three (10%) had participant pools from 51-100. However, the majority (12; 40%) of the studies had participant pools larger than 100.

Table 3

Study Characteristics: Setting

Document ID	Sample Size	Gender (greater percent)	Age	Race	Other Credential	Position/Title	Years Experience	Years Experience Special Setting
Anderson_2003	> 100	Males	20-29 = 8.2%; 30-39 = 8.6%; 40-49 = 25.5%; 50-59 = 40.8%; 60	C/W = 56.4%, AA/B = 25.5%, H	Prof = 43.2%, Life = 20.6%, Emerg. = 14.8%, Intern/PreIntern = 13.6%, Prelim. 7.8%	Faculty = 70.4%, Subst. = 17.7%, Intern/PreIntern = 11.9%	1-2 years =7.4%; 3-8 = 22.6%; 9-14 = 20.6%; 15-20 = 14.4%; 21 or more = 35%	1-2 years = 19%; 3-8 = 33.7%; 9-14 =21.8%; 15-20 = 11.5%; 21 or more = 14%

			or over = 16.9%			
Annamma_2015	11-50			C/W = 87.5%, AA/B = 12.5%		
Bailey_2007	51-100	Females				1-2 years = 0%; 3-8 = 41.7%; 9-14 = 16.7%; 15-20= 33.3%; 21 or more = 8.3%
Barnes_2018	51-100					
Bloom_1994	< 10	Females			1-2 years = 0%; 3-8 = 0%; 9-14 = 0%; 15-20= 75%; 21 or more = 25%	1-2 years = 0%; 3-8 = 25%; 9-14 = 25%; 15-20= 25%; 21 or more = 25%
Brennan_2017	< 10	Equal	31-40= 100%	C/W = 100%	1-2 years = 0%; 3-8 = 100%; 9-14 = 0%; 15-20= 0%; 21 or more = 0%	1-2 years = 50%; 3-8 = 50%
Bullock_1994	11-50					
Byrd_2019	> 100	Females		C/W = 82.9%, AA/B = 12.66%, H/L = 2.53%, O = 1.27%, A = 0.63%	8-11 years = 15.48%; 12-15 = 12.26%; 16-19 = 10.32%; 20 or more = 21.94%	
Clark_2022	< 10	Males		E= 14%, C/W = 14%, I = 29%, Hon. = 14%, P = 14%	1-2 years = 42.9%; 3-8 = 14.3%; 9-14 = 14.3%; 15-20= 14.3%; 21 or more = 14.3%	
Cox_2011	11-50	Females	(61%) were under 40	C/W = 100%	less than 5 years 57%	
Ferguson_2013	51-100					
Flores_2020	11-50	Males				
Francis_1995	< 10					
Froemel_2020	11-50	Females				
Gabel_2016	11-50	Females		C/W = 71.4%, AA/B = 14.3%,	1-2 years = 7.1%; 2.1-4 = 7.1%; 4.1-10 = 42.9%; 10.1or more = 42.9%	1-2 years = 7.1%; 2.1-4 = = 21.4%; 4.1-10 = 42.9%;

			O = 14.3%				10.1or more = 42.9%
Gagnon_2021	> 100	-					
Gilbert_1992	> 100	Males					
Hayward_2020	< 10	Females	C/W = 50%, AA/B = 50%			1-2 years = 0%; 3-8 = 75%; 9-14 = 0%; 15-20= 0%; 21 or more = 25%	1-2 years = 75%; 3-8 = 0%; 9-14 = 0%; 15-20= 0%; 21 or more = 25%
Houchins_2004	> 100	Females	21-34 years = 18.8%; 35-50 = 38.3%; 51 and up = 42.9%			1-41 years (mean 16)	1-40 years (mean 5 years)
Houchins_2006	> 100	Females	21–34 8.6%; 35–50= 38.4%; 51 and up 45.7%; Not Reported 7.3%	B = 33.8%, M = 25.1%, S = 10.5%, D = 2.6%, NR = 28%	4-year = 66.9%, Cert only = 36%, NR = 9%		1–5 = 10.6% 6–10 = 23.2% 11–20 = 24.8% 20 or more= 38.4%; NR = 4.0%	5-41 years (18.4 mean)
Houchins_2010	> 100	Females	83% were 35 or older, and 44% were 51 or older					
Houchins_2017	> 100	Females	21–34 =16%; 35–50 = 39%; 51 and up 45%					
Jurich_2001	> 100	-		HS = 12%, Assoc = 8%, B, = 46%, M = 27%, D = 7%	Teaching = 48%, Correctional Officer = 16%, SW/C = 11%, Other Business Industry = 25%	Academic = 63%, Voc. = 26%, Cog/Behavioral = 1%, AV = 4%, O = 6%	less than 1 year = 14%; 1-5 years = 53%; 6-10 years =10%; over 10 years= 23%	
La Bouff_2008	11-50							
Mason Williams_2017	> 100						0-3 years = 17.6%; more than 3 = 82.4%	
Moody_2003	11-50	-						
Murphy_2018	< 10	Females	late 30s = 20%; early 40s = 20%; mid 40s = 40%; late 40s = 20%	C/W = 60%, AA/B = 40%				
Painter_2008	11-50							

Paulson_1986	> 100	Teachers = 88%, Admin = 5%, Support 7%	
Roberts_1988	> 100		Less than 1 year (8.7%), 1-3 years (25.7%); 4-6 years (18.6%); 7-9 years (13.7%); 10-12 years (9.3%) 13-15 years (7.1%), >15 years (16.4%); unknown (0)

Note: C/W = Caucasian/White, AA/B = African American/Black, H = Hispanic, O = Other, A = Asian, H/L = Hispanic/Latino, E = Ecuadorian, I = Indian, Hon = Honduran, P = Pakistani, Voc = Vocational, Subs. = Substitute

Seventeen (57%) of the studies included reported participant gender. Four (23.5%) reported a greater percentage of male participants while 12 (70.1%) reported a greater percentage of female participants. Only one (Brennan_2017) reported an equal percentage of male and female participants. However, there were only two participants which created outliers in the data and were thus excluded. Eight of the studies reported on age of participants. The breadth of ages included in each were variable, and thus difficult to compound. However, roughly averaging the percentages of participants younger than 40 (excluding Brennan_2017 as outliers) about 19% of participants reported being younger than 40. Nine of the studies reported the ethnicity of participants. Of these, eight reported largely White participants, seconded by Black (ranging from 12.66% to 50%).

Participant educators' position or title was specified in three articles. Anderson_2003 used faculty (70.4%), substitute (17.7%), and intern/pre-intern (11.9%) to represent educator groups. Paulson (1986) used similar groupings consisting of teachers (88%), administrators (5%), and educational support (7%). Jurich (2001) chose to group their juvenile educators by

discipline area. These included academic specialty (63%), vocational (26%), cognitive-behavioral (1%), academic/vocational (4%), and Other (6%).

Ten of the 30 studies reported on the total years of teaching experience. Roughly less than 10% of teachers reported having two or less years' worth of experience, with most of the teachers having experience in the range of three to ten years (47%) and 11-20 (40%).

Eleven studies reported total years teaching in the special setting. Of these, roughly 12% of teachers reporting had less than three years of experience. Most of the teachers had between 3-10 (29%) and 11-20 years of teaching experience (41%).

Study Characteristics: Training and Self-Efficacy

The fourth section on study characteristics concerned variables relating to the level of education, training, or professional development. Also, of interest was to what extent the study involved teacher self-efficacy. The variables included in this section were: Education Level, Degree Field, training specific to Justice-Involved Juveniles, Teacher Self-Efficacy, and Greatest Needs. See Table 4 for a complete description of training and self-efficacy variables within the included literature. The studies measured a range of variables, but only five were intervention-type studies. This means the majority (83.3%) of the studies focused on gaining information about teacher perceptions of their needs. About 13 (43.3%) of the studies used adapted forms of previous assessments, 11 (36.7%) gathered data through interviews or focus group, and the remainder (20%) used author-created assessment tools.

Table 4

Study Characteristics: Training and Self-Efficacy

Document ID	Education Level	Degree Field	Justice Involved Training	TSE	Greatest Need

Anderson_2003	B = 39.5%, M = 53.9%, D = 6.6%			Efficacious and Confident Male = 137, $\bar{x}$ = 40.0973, Female = 106, $\bar{x}$ = 39.2453; Efficacious and Confident: 20-29= 20, $\bar{x}$ = 39.7500, 30-39 = 21, $\bar{x}$ = 39.5238, 40-49 =62, $\bar{x}$ = 40.1344, 50-59 = 99, $\bar{x}$ 39.6465, 60+ = 41, $\bar{x}$ 39.390	* Greater training * Lack of parental participation * Lack of student motivation * Interference of treatment with academic programs * Lack of teacher control over SPED timeline * Lack of time due to program constraints
Annamma_2015		100% SPED		prepared = 12.5%; low self-efficacy 87.5%	
Bailey_2007					
Barnes_2018					* Record transferal
Bloom_1994	B = 75%, M = 25%	SS = 20%, IA = 20%, E = 20%, C = 20%, U = 20%	Paul = 3, 4, Fred = 1, Joye = 3,4, Marget = 3, 4		
Brennan_2017	M = 100%	SPED = 100%	100% = 4		
Bullock_1994			3		
Byrd_2019		SPED = 100%		TSES scale a mean of 7.15 (nothing = 1-2, very little = 3-4, some influence = 4-5, quite a bit 6-7, and a great deal = 8-9) signifying high levels of teacher efficacy (quite a bit).	
Clark_2022		Sci. =14.3%, Art = 14.3%, M/P/C = 14.3%, SS= 28.6%, WL = 14.3%, Math = 14.3%			
Cox_2011					* Lack of PD Opportunities * More Interdisciplinary/In

			terdepartmental Work
Ferguson_2013			
Flores_2020		2, 3, 4	* Lack of feelings of accomplishment * Time limits on relationship building * Dealing with correctional education methods
Francis_1995		SPED = 100%	* Limited amount of education hours per week
Froemel_2020			* Students lack confidence and motivation in improving academics * Need more resources to provide optimal opportunities for growth
Gabel_2016			
Gagnon_2021			
Gilbert_1992			
Hayward_2020	M = 100%		
Houchins_2004			
Houchins_2006		ED = 67%, SPED = 28%, NR = 5%	
Houchins_2010		ED = 67%, SPED = 2.84%, NR = 5%	
Houchins_2017			
Jurich_2001			Teacher Proposed PD on * Learning styles * Avoiding burn out * Developing and maintaining a safe environment * Techniques of classroom

management, * Understanding criminal behavior * Improving communication with students * Best practices in correctional education, * Improving communication with correction officers * Improving communication with administrators * Dealing with change and instability * Motivating students (shared strategies) * Improving communication with colleagues * Mission of correctional educators * Surviving the first year as a correctional educator * Improving leadership skills * Diversity in educational settings * Vocational education in a correctional setting * Motivating students * Basic skills in group dynamics

Mason Williams_2017	
Moody_2003	
Murphy_2018	
Painter_2008	
Paulson_1986	B = 47.5%, Adv 46.7%, NR 5.8%
Roberts_1988	HS = 0.5%, B = 16.9%, G = 25.1%, M = 49.2%, D = 3.8%, NR = 4.5%

Notes: HS = High School, B = Bachelor's Degree, M = Master's Degree, D = Doctoral Degree, S = Specialist, NR = Not Reported, Assoc = Associate's Degree, Advan = Advanced Degree, G = Some Graduate Work, SS = Social Sciences, IA = Industrial Arts, ED = Education and C = Counseling, U = Unknown, M/P/C = Math/Physics/Chemistry, WL = World Languages

Of the 30 studies, eight (26.7%) reported the education level of the participants, with roughly half of participants reporting having advanced degrees. Of these, only one (12.5%) of the studies specifically addressed teachers with emergency certifications (Anderson_2003). Two (25%) reported on current educators in Juvenile Justice facilities teaching without a four-year program degree (Jurich_2001 and Roberts_1988).

Fourteen (46.6%) of the studies included the degree field of the participants. There was only one of the studies that reported degree fields did not include special education as one of the categories, five of the included studies reported 100% of educators of justice-involved youth being special education certified.

Only four (13%) of the studies reported on specific training for working with justice-involved students (Bloom_1994, Brennan_2017, Bullock_1994, and Flores_2020). Of these, most of the participants had institution/university education, or had participated in "other" training specific to this setting such as internships. When educators reported receiving specialized training, about half reported the training was on behavioral strategies, and half were "other."

Three of the articles specifically focused on TSE (Anderson_2003; Annamma_2015; Byrd_2019). Annamma_2015 reported about 88% of included teachers demonstrating low self-efficacy, whereas Byrd_2019 found a mean of TSE signifying high levels of teacher efficacy. Anderson (2003) provided TSE scores compared by gender and age. They found no significant levels of difference relative to gender, but they found significant differences in age with ages 20-29 scoring highest on "Conscientious and Responsible" and "Collaborative and Supportive, while teachers aged 40-49 were most "efficacious and Confident" and teachers older than 60 had highest scores in "Locus of Control" compared to the other age groups.

Of the nine (30%) studies identifying teacher preparation as a source of teacher self-efficacy, two (22.2%) found TSE appears to increase with appropriate supports and preparedness (Cox_2022; Houchins_2004).

Eight (26.7%) of the studies reported on the areas teachers perceived to be their greatest need. Those most named were for more opportunities for professional development, stronger interagency collaboration, and concerns about time or system constraints on providing appropriate services.

Discussion

In a discussion of the results of this systematic literature review, it is important to note each study considered varying subsets on the variables of interest. Therefore, not all variables were included within all of the 30 documents. This results in limitations to the ability to generalize beyond these particular documents. Nonetheless, the data gathered can provide insight into the feelings of competence and training needs of educators of justice-involved juveniles.

The data from the documents meeting search criteria was gathered and organized into four sections on study characteristics: source information, setting characteristics, participant characteristics, and training and self-efficacy. These are discussed in the following section.

Study Characteristics: Source Information

The first section, source information, included author(s), study design, publication type, publication date, first author publication summary, recurring journals, and funding. The documents contained a range of variables. However, only five were intervention-type studies. This means the majority (83.3%) of the studies focused on gaining information about teacher perceptions of their needs, which might suggest we are still learning about this population of educators and only beginning to identify best practices. This is further demonstrated by the high number of correlational-type research included in the selected literature (11 of 30; 36.7%). Correlational research allows for a more comprehensive understanding of the interactions of the different variables involved (Rubin, 2013). Correlational research can reveal associations and patterns in real-world settings, thus providing a more holistic view of the topic (Rubin, 2013). Additionally, correlational research is useful when a phenomenon has not been extensively studied because it is straightforward, easy to conduct, and can provide insight into relationships between variables without taking a lot of resources and time (Lomax & Hahs-Vaughn, 2012). Correlational studies also allow researchers to explore associations between variables without necessarily inferring causality (Lomax & Hahs-Vaughn, 2012). However, it is important to note the limitations of correlational research. Correlation of variables does not imply causation (Lomax & Hahs-Vaughn, 2012). Additionally, correlational studies rely on the accuracy and reliability of the data collected and are subject to confounding variables which could influence observed relationships (Lomax & Hahs-Vaughn, 2012). Correlational studies can be seen as an

important starting point followed by more rigorous research to investigate causality (Rubin, 2013).

The included articles fell roughly into three time periods: the 1990s (20%), the early 2000s (26.7%), and 2010 to current publications (53.3%). This steady increase in published articles concerning educators of justice-involved juveniles suggests educators of justice-involved juveniles as a population and their needs is gaining recognition and researchers are beginning to study ways to improve correctional education in juvenile justice facilities. One possible reason for this could be a shift in focus from punishment to rehabilitation. The 1990s introduced a period of highly punitive interactions with juveniles based on the idea that youth offending was on the rise (Sankofa et al., 2018). This led to "zero tolerance" policies where justice-involved juveniles were viewed as inherently dangerous super criminals with no remorse and no hopes for rehabilitation (Sankofa et al., 2018). More recently, child development research has led to recognition of limits in culpability and the push has become to focus on treatment and rehabilitation (Sankofa et al., 2018).

It is also interesting that of the journals reporting on educators of justice-involved juveniles (9 of 30; 33.3%), only one was a journal centering on carceral involvement (The Journal of Correctional Education). The fact that most of the journals reporting on this population of educators were special education focused supports the intersectionality of disabilities and justice-involvement. In addition, it suggests there are not enough carceral related literature sources focusing on educators of justice-involved youth.

Over half of the publications found through the search were by first authors who had no other publications (53.3%). This is not terribly surprising when considering almost half of the included literature were dissertations. However, where are these specialists in juvenile justice

disappearing to that they do not continue growing the research base? One consideration is the barriers involved in accessing this population of students (Sankof et al., 2018). It is not easy for researchers to access justice-involved juveniles for research as they are a protected population of individuals, both as children and as detainees. However, once a relationship has been made with a facility or government entity, researchers may find they have easier access for continued research. This is exhibited by three of the researchers who contributed to more than one publication included in this systematic review (Houchins, David; Bullock, Lyndal; Gagnon, Joseph Calvin).

An additional support for correctional education of juveniles as a growing field of discipline is seen in the funding sources represented within the literature. Only four of the 30 (13.3%) articles reported receiving funding for their study. One was a fellowship (Annamma_2015) and the other three were grants (Barnes_2018, Gagnon_2021, Jurich_2001). However, of these four studies reporting funding, three occurred within the past decade, suggesting funding may be becoming more available for studying this population and their students.

Study Characteristics: Setting

The second section of characteristics were those variables relating to study setting. This included state, community type, school level, school environment, subject or course, average number of students taught, and average number of students with disabilities. All 30 documents reported on state or geographical area and resulted in a range of states. The majority of documents (30%) reported on multiple states or at the national level. However, it is interesting to note a preponderance of reported states were in the southern portion of the United States. There

were eight (26.7%) of articles based only in southern states, but this percentage increases to 50% when including studies of multiple state studies that had representative southern states.

It is no surprise that a variety of community types (e.g., rural, urban, suburban, etc.) were reported in the literature. Of those reporting 50% reported mixed community types. This could be because many of the studies were at state or national level and thus the setting of participants within each study varied greatly. This could also be true of the documents that reported on school level. Almost three-quarters of studies (66.7%) reported supporting juveniles in multiple levels (e.g., both elementary and secondary level students).

Only one article (Brennan_2017) specified the total number of students being served who had a disability. This is interesting because so many of the represented journals were special education journals. I think this again speaks to the lack of literature sources that are focused on this population of youth and educators serving them.

Study Characteristics: Participants

The third section on characteristics involved variables relating to description of the participants examined within the included literature. Participant characteristics included total participant sample size, participant gender, age, ethnicity, race, position or title, years of teaching experience, years of teaching in the special population, and subjects taught. Of the documents reporting on participant gender, twelve (12 of 17; 70.1%) reported a greater number of female participants. This aligns with the teacher workforce statistics in the US where females make up about 75% of the workforce (McCain, 2023). About 19% of participants reported being younger than 40, meaning the workforce in this area is largely over 40. This is similar to other findings on teacher statistics in the US, where most of the workforce (56.9%) is aged 30-49 (McCain, 2023), and about 20% are 50 or older. This could be because age has been identified as a strong

predictor of job satisfaction, with older workers generally being more satisfied with their jobs than younger workers (Gosnell, 2000).

Of the studies reporting on the race of participants, almost all (8 of 9; 88.9%) reported largely White participants (ranging from 50% to 100%), seconded by Black participants (ranging from 12.66% to 50%). Additionally, only three of the nine studies reporting race (33%) had at least some participants that did not identify as White or Black/African American. These findings are similar to findings on the distribution of US teachers across different races/ethnicities where about 80% are white (McCain, 2023). About 7% reported Black or African American (Non-Hispanic), about 2% reported Asian heritage (non-Hispanic), 0.5% reported a race of Native American/Alaska Native (Non-Hispanic), and 0.2% reported races of Native Hawaiian or Other Pacific Islander (Non-Hispanic) (McCain, 2023). This is especially concerning for development of self-efficacy skills in justice-involved juvenile students. Bandura proposed we learn through watching others, (e.g., vicarious experiences, verbal persuasion), particularly when they are most like us. This could be of particular importance for justice-involved juveniles where about half are from minority groups, with the expectation to have greater minority numbers by the year 2050 (OJJDP, 2022).

The education level of participants was reported in eight of the studies. Roughly half of the participants in these reported having advanced degrees. Again, this is consistent with other US statistics on the average public k-12 teacher, where about 50% report having a master's degree and about 39% reporting having a bachelor's degree. Of the fourteen studies reporting on the degree field of participants, only one (Clark_2022) did not include special education as a top degree field. Further, five reported 100% of teachers in the facility being certified special education teachers. Although I attempted to find statistics identifying common degree fields of

educators of justice-involved juveniles, I was unable to find any resources. As research involving educators of justice-involved juveniles is in its infancy, there are many unknowns regarding this population. I hope to shed light on educator characteristics of this population with the current study.

Study Characteristics: Training and Self-Efficacy

The fourth section on study characteristics concerned variables relating to the existence of juvenile-justice specific training, or professional development and to what extent the study involved teacher self-efficacy. Only four (13%) of the studies reported on specific training for working with justice-involved students (Bloom_1994, Brennan_2017, Bullock_1994, and Flores_2020). Of these, most of the participants had institution/university education, or had participated in "other" training specific to this setting such as an internship. This suggests that there is little provision of justice-setting-specific training, but when training is provided, the best platform may be internship or practicums.

Two (22.2%) of the nine (30%) studies identifying teacher preparation as a source of teacher self-efficacy found TSE appears to increase with appropriate supports and preparedness (Cox_2022; Houchins_2004). This is further supported by the work of Anderson_2003 who reported collaboration and support were areas that contributed significantly to teachers' self-evaluation concepts which predicted teacher satisfaction. Byrd (2019) extended this to identify teacher efficacy as a significant predictor of the amount of support received. Several researchers also mentioned the lack of teacher preparation and training as a significant issue in correctional education (Anderson cited DeGraw, 1987). Anderson pointed out that most teachers in the setting received teacher training in regular or special education environments, not correctional or alternative settings. They further indicated these teachers receive little or no preparation in

student behavior interventions, strategies teaching students of "risk," crisis management, liability, health, working conditions, and safety training. (pp 11-12). This same issue was further delineated in Annamma's work which suggested teachers working with female students involved with the justice system may have minimal experience and training in special education, suggesting there is a general lack of individualization and overall services for youth with disabilities in this setting. This is significant due to the high numbers of youth who are justice involved and have disabilities, indicating teachers with higher levels of self-efficacy are more successful working with students in this population. Even more importantly, Ferguson (2013) reported higher teacher efficacy translates into teachers feeling more capable to minimize negative student behavior and help students achieve academic success in the classroom.

Of the included literature, eight (26.7%) reported on areas of need as perceived by teacher participants. Needs cited included opportunities for more professional development, better interagency collaboration, parental participation, lack of resources, and lack of time allowances for providing appropriate services. Of these, the most often recurring need was related to better training and more professional development opportunities.

Summary and Conclusion

One of the most important take-away from a study of self-efficacy is the cyclical nature of teaching self-efficacy, in that TSE leads to higher self-efficacy in students, which leads to higher self-efficacy in teachers (Schunk, 1995). Not only do we know the benefits of TSE, but we also have a few ideas of ways we can improve on it, such as mastery experience (Bandura, 1997). Many teacher education programs provide field experiences, modeling, and guided reflection on real-life teaching, all of which are common methods employed to foster the development of self-efficacy in their teacher candidates (Pearman et al., 2021). Other ways to

develop self-efficacy are use of mentoring, collaboration with colleagues, and reflecting on observations. Using scenarios to role play also is beneficial as it allows students to practice situations that may arise in their future classrooms (Pearman et al., 2021). Providing a debriefing session allows teacher candidates to discuss viewpoints, decisions, and actions can also be useful to self-efficacy development (Pearman et al., 2021). These training programs provide opportunities for mastery and vicarious learning which additionally promotes resilience (Bandura, 2012). Other research suggests we need more training in teacher preparation programs to improve upon providing for students from diverse backgrounds (Sharp et al., 2019). Teacher education programs need to be aware of potential growth in self-efficacy and motivation (Ralph, 2002; Ralph, 2003) The practicum experience is intended to help develop efficacy beliefs in student teachers through self-reflection, previous successes, existing skills and knowledge levels, and mentor teachers' judgements and supervisory style (Pearman et al., 2012). This is exciting news for teacher education programs and gives new directions for developing self-efficacy skills. Although we may not be able to change basic personality traits, appropriate programs could play a substantial role in helping pre-service teachers develop self-efficacy skills, including coping strategies, defense mechanisms, and other behaviors developed within the social cognitive frame of self-efficacy (McAdams & Pals, 2006; McCrae et al., 2000; Rimm-Kaufman & Hamre, 2010).

Chapter 3

Methodology

This study sought to explore potential sources of teacher self-efficacy (TSE) in educators of justice-involved juveniles. An explanatory sequential, mixed-methods design was used to facilitate a thorough investigation into sources of TSE. The explanatory sequential design proves useful when the researcher is interested in the collection and analysis of quantitative data followed by a second phase of qualitative data collection and analysis that builds on the initial quantitative results (Creswell & Creswell, 2018; Creswell & Plano Clark, 2018). In this way, the quantitative data is used to explain a phenomenon, and which can be further interpreted through qualitative data. In the explanatory sequential design, the researcher connects the quantitative results to guide the qualitative questions, with integration occurring at more than one point in the study (Creswell & Plano Clark, 2018).

Research Questions

The aim of this study was to answer the following research questions about educators of justice-involved juveniles in special settings in the U. S.

(1) Are there common patterns or themes in demographic characteristics of this correctional educators of justice-involved juveniles.

(2) How do educators of justice-involved juveniles score on Total Teacher Self-Efficacy and the three types of TSE (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement) as measured by TSES?

(3) Do demographic characteristics have any relation to TSES Total or types of efficacy scores of educators of justice-involved juveniles?

(4) How do educators of justice-involved juveniles score on Total Sources of Self-Efficacy,

and the four sources of teacher self-efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) as measured by the SOSI?

(5) Do the four sources of efficacy as measured by the SOSI, have any relation to TSES scores of educators of justice-involved juveniles?

(6) How do educators of justice-involved juveniles in special settings perceived and define influential components of mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states that affect, or have affected, affected their attainment of TSE?

(7) To what extent do educators of justice-involved juveniles in special settings perceive the four sources of efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) to have affected their efficacy?

Research Design

There are many reasons this study was well-suited for the explanatory sequential, mixed-methods approach. First, a mixed-methods design allowed for collection of both quantitative and qualitative data which allowed for a more comprehensive understanding of the topic (Creswell & Plano Clark, 2018). By gathering quantitative data first, I was able to identify patterns and commonalities in juvenile correctional educator characteristics and self-efficacy levels. By focusing on the four sources of self-efficacy, I attempted to understand how each source relates to TSE in this population. The quantitative data provided a broad overview of the current situation (Creswell & Plano Clark, 2018) for educators of justice-involved juveniles. The subsequent qualitative interviews offered an opportunity for participants to elaborate on their own experiences in relation to each of the four sources of self-efficacy (Creswell & Creswell, 2018). Delving deeper into experiences, perceptions, and specific factors influencing TSE in this

population enhanced the richness of my findings. This enabled a better understanding of the interplay between the four sources of efficacy and their impact on TSE levels. The iterative process provided for a more nuanced understanding of TSE in an understudied population (Creswell & Creswell, 2018), specifically educators of justice-involved juveniles.

The mixed-methods research design also allowed me to triangulate the data, comparing results to validate findings and help strengthen overall credibility and reliability of the study (Creswell & Creswell, 2018; Creswell & Plano Clark, 2018). Additionally, this design enabled the exploration of TSE of educators of justice-involved juveniles, which could potentially lead to improvements in the quality of education of these vulnerable youth. Having gained insights from both sets of data, I can offer more comprehensive recommendations on training, support, and interventions to enhance TSE of teachers working with justice-involved juveniles.

Reflexivity Statement

Education is a major part of my life. In fact, I am a strong proponent of life-long learning and seeking out opportunities to grow. I enjoy learning about new things and deepening my knowledge in other things. I want to impact students who have lost the desire and motivation to learn. I believe we have an innate desire to learn that is born with us, but often the curiosity is weakened by environmental factors which prevent individual success. I believe many of the youth who are currently involved in the juvenile justice system are a population experiencing a myriad of issues, not the least of which is academic deficiencies. Youth with disabilities make up as much as 70% of all juveniles incarcerated (Quinn et al., 2005). This is suggestive that this group is lacking some basic knowledge that youth without disabilities do not have or have to a lesser extent. One way to address deficits in this group is to focus on improving teacher quality. I

believe that my training and expertise in special education can help prepare teacher educators for working in the field.

I am currently enrolled in my fourth year of graduate school where I am pursuing my Ph.D. in special education with an emphasis in transition education. It is important to note my master's degree was in special education with an emphasis in early childhood, but most of my experience is in middle school. I am a middle-class, white female; however, I was raised in an adoptive family consisting of different races and originating nationalities. I have minimal personal experience with juveniles who have been court detained, or anyone who has been incarcerated. My limited first-hand experience involved one year of teaching at a minimum security level residential facility for juveniles. Therefore, I have limited experiences to draw upon, but I am passionate about improving educational opportunities for justice-involved juveniles.

My role as a special educator greatly impacts my study, both positively and negatively. First, due to the focus on TSE, I will draw upon my experiences developing individualized curriculum and activities and my knowledge of evidence-based practices for teaching to draw comparisons and conclusions concerning detention center staff perceptions. Although I have little experience with the justice system, I believe, many of the techniques and concepts involved in special education can be applicable in teaching incarcerated juveniles. Conversely, my expectations of the juvenile detention system may be negatively influenced by preconceived ideas of what characteristics and behaviors are common to juveniles who have been confined. I know this ignorance of the system may come through as I speak with participants and in wording my questions. I plan to be conscious of these biases and work to limit them as much as possible, but I know they will impact my research, nonetheless.

Ethical Considerations

Before beginning this study, the author received approval from the University of Oklahoma Institutional Review Board for working with human participants (See Appendix A.1.). This supports ethical following of practices and procedures. Informed consent was obtained for all participants before beginning data collection, allowing time for participants to ask questions or relay concerns to be addressed (See Appendix A.2 for the survey consent form and Appendix A.3. for the interview consent form). There was minimal risk associated for participants of this study. The quantitative portion was completed anonymously with a final question on the survey asking for (a) no further contact, (b) an email address to be included in a compensatory drawing of gift cards, or (c) inclusion in the compensatory drawings and willingness to participate in the interview portion of the study. For those responding affirmatively, their email addresses were collected for possible use in the qualitative phase of the study.

For phase two of the study, all recordings and interviews were kept confidential according to the extent allowed by law and university policy. To ensure that participant confidentiality was maintained, all participants involved in the qualitative portion of the study were assigned a pseudonym which was used to identify them throughout the study. Secured survey, demographic, and interview responses were kept on the University of Oklahoma's password protected network and were accessible to the researcher and dissertation committee. Once the data had been used for its intended purpose, all audio files, video files, and transcripts were deleted according to university and IRB procedures.

Research Procedures

Quantitative Procedures

Population and Sampling

Purposive sampling is a type of sampling in which settings, groups of people, or events are deliberately selected based on the expected information they can provide (Mertens, 2020). This study used purposive sampling because the target population was educators who have, are currently, or are planning to teach in special setting schools for juveniles involved with the juvenile justice system. I defined *special setting schools for juveniles involved with the juvenile justice system* as separate school settings that address elementary, middle, and/or secondary grade level students with (a) behavioral problems, (b) who are at-risk for juvenile justice involvement, (c) who are unable to benefit from regular school due to behavior, or (d) are detained or incarcerated. Rather than focusing on one subgroup, I chose to target all educators of justice-involved juveniles across the United States to get a broad picture of the characteristics, training levels, and TSE of this population.

Further, I attempted to gather a range of participants in different geographical locations in the U. S. with differing levels of experience and education. Since the first phase of the study was completed via online Qualtrics survey and the interview portion was completed via Zoom, the study was not limited to geographical location and encompassed a greater range of participants from different locations across the U. S.

Recruitment. I cast a wide net for participants by creating a recruitment flyer to be shared with targeted listservs which cater to educators, special educators, education administrators, teacher organizations, juvenile justice administrators, juvenile justice educators, and/or correctional educators. The flyer was drafted for approval by the University of Oklahoma IRB human participants board and is located in Appendix A.4. The flyer specifically stated the recruitment was for current and past educators of justice-involved juveniles. It offered

participants a chance to win one of 40, $25 gift cards. The flyer was disseminated through listservs, newsletters, and social media. As I was interested in reaching educators working with all at-risk populations in separate settings including those based on behavior as a precursor to juvenile justice involvement, I focused my outreach beyond correctional educators to include all educators and special educators of juveniles. Targeted listservs included: the Correctional Education Association (CEA), the Council for Exceptional Children (CEC), Juvenile Justice Information Exchange (JJIE), and the Zarrow Institute on Transition & Self-Determination. I shared the survey questionnaire on Facebook, Twitter (now X) and BlueSky (October 18, 2023, November 1, 2023, November 27, 2023), as well as LinkdIn (November 1, 2023, November 27, 2023). Viewers were encouraged to share information with other educators and administrators working with justice-involved juveniles. Recruitment information included my email address and phone number so interested persons could contact me for additional information or to express interest in participating in the study. Snowball sampling was utilized in which participants were asked to share the flyer with other potential participants.

I also did an internet search to find email addresses for juvenile correctional representatives at the state level who might have the authority to disseminate the survey to employees in their state. I created an email introducing myself and the purpose of the study. I also shared the IRB-approved flyer. (See Appendix A.5 for an example email). One individual was contacted per all 50 states. These included Superintendents, Administrators, Directors, Deputy Directors, and Coordinators from agencies including State Justice and Public Safety, Family and Child Services, Department of Justice, and State Juvenile Justice Facilities.

Quantitative Instrumentation

Quantitative measurement scales are the norm for researchers attempting to evaluate teacher self-efficacy of an individual (Gibson & Dembo, 1984; Bandura, 1997; Kieffer & Henson, 2000; Tschannen-Moran & Woolfolk Hoy, 2001). In order to learn about the experiences, feelings of efficacy, and efficacy development of educators of justice-involved juveniles, I created a three-part survey consisting of 76 items. The survey featured a drop-down menu for all questions except for fill-in-the-blank for certain situations (e.g., state of residence, when choosing "other" and when asked to "specify"). The first 17 questions were designed to identify demographics and educational background of participants. The next 24 questions were the long version of the TSES which I used to identify total levels of TSE. The final 35 questions consisted of the SOSI, which was used to quantify levels of Bandura's four sources of self-efficacy. A complete survey can be found in Appendix A.6. The next sections contain more information on the measures selected.

Demographic Survey. A participant demographic survey was administered to educators of justice-involved juveniles to gather data on characteristics including gender, identity, age, ethnicity, race, education level, degree field, total years teaching, and years teaching in a specialized setting for justice-involved juveniles. Additional background information included current U. S. state of employment, school type, principal teaching assignment, age group of students, content or curricular area, primary subject area assignment, gender of juveniles taught, student grouping, average class size, and participation in professional development for educators of justice-involved juveniles.

Teacher's Sense of Efficacy Scale. There is no available scale to measure TSE of educators of justice-involved juveniles, therefore the TSES was chosen due to its reliability, validity, and consistency (Tschannen-Moran and Woolfolk Hoy, 2001). This Bandura-based

instrument consistently exhibits three moderately correlated factors: *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* (Klassen et al., 2009; Tschannen-Moran & Johnson, 2011; Tschannen-Moran and Woolfolk Hoy, 2001).

The TSES is a Likert-type scale that addresses teachers' beliefs in their capabilities to handle specific classroom situations (Tschannen-Moran & Woolfolk Hoy, 2001). There is a 24-item "long" form and a 12-item "short" form, both having satisfactory reliability and construct validity across grades and geographical areas. I used the long form because there is literature suggesting lower internal consistency of scores, lower construct coverage, and lower measurement precision are concerns when using a shortened version of a scale (Kemper et al., 2019). In the short version, only four items address each subscale whereas the full-length scale consists of eight items each. The long form TSES was found to be highly reliable with an overall α [alpha coefficient] = .94, an α of .87 for student engagement, an α of .91 for instructional strategies, and an α of .90 for classroom management (Tschannen-Moran & Woolfolk Hoy, 2001). Additionally, the TSES items have been found to be positively related to items on previous teacher efficacy scales, including the Rand measurement ($r = 0.35$ and 0.28, $p<0.01$), the Gibson and Dembo factors of personal teaching efficacy ($r = 0.48$, $p<0.01$) and general teacher efficacy scales ($r = 0.30$, $p < 0.01$) (Tschannen-Moran & Woolfolk Hoy, 2001). See Table 5 for items on the TSES organized by factor.

Table 5

Teacher Sense of Efficacy Scale Factors

Factors	Teachers' Sense of Efficacy Scale Items
Efficacy in Student Engagement	* How much can you do to get through to the most difficult students? * How much can you do to help your students think critically?

	* How much can you do to motivate students who show low interest in schoolwork? * How much can you do to get students to believe they can do well in schoolwork? * How much can you do to help your students value learning? * How much can you do to foster student creativity? * How much can you do to improve the understanding of a student who is failing? * How much can you assist families in helping their children do well in school?
Efficacy in Instructional Strategies	* How much can you gauge student comprehension of what you have taught? * To what extent can you craft good questions for your students? * How much can you do to adjust your lessons to the proper level for individual students? * How much can you use a variety of assessment strategies? * To what extent can you provide an alternative explanation or example when students are confused? * How well can you implement alternative strategies in your classroom? * How well can you provide appropriate challenges for very capable students?
Efficacy in Classroom Management	* How much can you do to control disruptive behavior in the classroom? * To what extent can you make your expectations clear about student behavior? * How well can you establish routines to keep activities running smoothly? * How much can you do to get students to follow classroom rules? * How much can you do to calm a student who is disruptive or noisy? * How well can you establish a classroom management system with each group of students? * How well can you keep a few problem students from ruining an entire lesson? * How well can you respond to defiant students?

The scale has nine choices using the stem *I can do*: 1 = *nothing* to 9 = *a great deal* in reference to affecting student behavior and performance. Higher scores indicate higher levels of efficacy. Since I was presenting the survey digitally, I was concerned about overwhelming the screen and viewers with too many options, therefore I only used 5 categories: 1 = nothing, 2 = very little, 3 = some, 4 = quite a bit, and 5 = a great deal. I acquired permission to use the TSES for research purposes August 3, 2023 (See Appendix A.7). The TSES is free to use and can be accessed at https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/2/5604/files/2018/04/TSES-scoring-zted8m-1s63pv8.pdf.

Sources of Self-Efficacy Inventory. A search of the literature found only two published scales intended to assess all four sources of self-efficacy. One of these was a four-item measure

used to evaluate the influence of a teaching practicum (Hepner, 1994). However, no evidence of validity was provided for this scale. A second published scale was a 30-item measure of sources of TSE among preservice elementary teachers in Greece (Poulou, 2007). A factor analysis resulted in the researcher choosing to combine mastery experience and social persuasion items, but this is not ideal since combining factors makes it difficult to interpret the meaning, making it unclear what is being measured (Ruble et al., 2011). Further, combining items from different factors may inadvertently mix distinct constructs (Ruble et al., 2011). Therefore, I did not feel either of the published scales would sufficiently answer the research questions regarding sources of efficacy. Another option would have been to use separate scales for each of the sources of efficacy (see Ruble et al., 2011), but that would make for a much lengthier questionnaire which I would like to avoid. For this reason, I am choosing to use an unpublished scale, the SOSI.

The Sources of Self-Efficacy Inventory (SOSI; Kieffer & Henson, 2000) is based on the model of teacher efficacy as presented by Tschannen-Moran et al (1998) and the four sources of self-efficacy as proposed by Bandura (1997). In a study of 252 preservice education teachers the 35-item SOSI resulted in four interpretable factors that contained many of the intended items (Kieffer & Henson, 2000). The SOSI (Kiefer & Henson, 2000) consists of a 35-item, Likert-type scale ranging from 1 “definitely not true for me” to 7 “definitely true for me.” See Table 6 for items on the SOSI organized by factor. Both mastery experience and vicarious experience have nine items, while ten items are used for verbal persuasion, and seven items measure emotional and physiological states. Coefficient alphas for the four subscales were 0.7081 (mastery experience), 0.7797 (vicarious experience), 0.4495 (verbal persuasion), and 0.6000 (emotional/physiological states). Exploratory factor analysis (EFA) resulted in an interpretable solution, but a comparison of oblique and orthogonal rotations indicated the orthogonal rotation

was appropriate to interpret (factor correlations ranged from 0.019 to -0.318). The results of this analysis indicated only portions of the four subscales clustered together on the EFA. The authors indicated further analysis was intended, but a search of the literature revealed no additional information.

Table 6

Sources of Self-Efficacy Inventory Factors

Factors	Sources of Self-Efficacy Inventory Items
Mastery Experiences	* I have had many positive opportunities to teach. * I remember clearly those times when I have taught groups well. * I have developed many of my teaching skills by actually teaching. * Often my attempts to teach children are not as successful as I would like. * I have learned a great deal from teaching in classrooms. * I have made many mistakes when trying to teach children. * When I make instructional mistakes, I am able to learn from the experience. * I often wish that I had done things differently after teaching a lesson. * There have been opportunities for me to teach well.
Emotional/Physiological	* When I say the wrong things to a class, I become anxious. * The idea of being in a classroom as a teacher makes me nervous * I get excited when I do something right to help a child learn. * My fears of making mistakes affect my ability to teach. * I have felt my heart beat faster or harder when I have done well with a lesson. * Teaching well gives me a positive sense of personal success. * When I have made mistakes teaching, I have felt my heart beat faster and harder.
Vicarious Experiences	* I have learned about how to be a teacher by watching other skillful teachers. *Watching other teachers make mistakes has taught me how to be a more effective teacher. * I have had meaningful opportunities to observe teachers in action. * My classroom observations are valuable to me. * Educational textbooks and journal articles have helpful information on how to teach. * I believe I can teach as well as the teachers portrayed in popular movies. * I have developed confidence in my own teaching by observing the mistakes that other teachers make. * When I see other teachers do poorly, I am able to learn how to teach more effectively.

	* I am able to improve my own instruction by noticing the errors that others make.
Verbal Persuasion	* Listening to others talk about teaching gives me useful information on teaching. * I learn a great deal about how to actually teach effectively from suggestions of others. * The feedback I receive from others helps me teach better. * When people I respect tell me I will be a good teacher, I tend to believe them. * Feedback from other teachers is valuable to me. * I often compare my own abilities to other teachers. * My coursework has helped me develop effective teaching strategies and skills. * I tend to believe others when they tell me I will be a good teacher. * The things I learn in coursework helps me be an effective teacher. * I often get important feedback from my professors about my teaching ability.

Although the authors admit there were items associated with non-intended factors and deemed item and subscale revision needed, there are ample reasons to choose the SOSI to measure the four sources of self-efficacy. The SOSI was designed to address limitations of previous measures, which did not fully capture the construct of self-efficacy that includes the four sources of self-efficacy as identified by Bandura (Kieffer & Henson, 2000). The SOSI was created to capture the varied positive and negative events that can potentially provide information about influences of self-efficacy.

> For example, it is possible that a vicarious experience in which a preservice teacher witnesses an experienced teacher succeed can bolster the preservice teacher's own belief in his/her ability to succeed at the task. Furthermore, depending on the preservice teacher's attributions, witnessing an experienced teacher fail may also bolster the preservice teacher's efficacy if he/she perceives him/herself as having better skills than the observed teacher. The SOSI items were developed to potentially capture these varied sources of efficacy information (Kieffer & Henson, 2000, p. 7)

Therefore, the SOSI may result in a more comprehensive and refined assessment of the four sources of efficacy. The SOSI is grounded in the theoretical model of TSE and the work of Bandura (1997) and Tschannen-Moran, et al. (1998), which aligns with my theoretical

framework. Finally, despite some challenges with initial factor analysis, the SOSI yielded interpretable factors aligned with the dimensions of TSE I am interested in studying. Considering the alignment with my theoretical framework, the ability to address previous limitations, and the potential for a more comprehensive assessment, the SOSI is a strong choice for measuring the four sources of self-efficacy in my research.

The survey included a final question asking participants to provide contact information if they wanted to be included in the drawings for survey participation and/or were willing to participate in the qualitative interviews. Participants had the option to not provide contact information as they chose (n = 15; 17%).

I chose to utilize the online survey service Qualtrics due to its ease of use, levels of data security, and availability through the University of Oklahoma. The questionnaire was tested by three doctoral students in the special education department to search for errors, difficulty in readability, miscommunication of information, and to identify the average time needed to complete the entire survey (Student A = 7.33 minutes, Student B = 14.3 minutes, Student C = 9.25 minutes). Minor corrections in spelling and formatting were made before the survey was opened October 17, 2023.

Survey Integrity

The survey was opened October 17, 2023. There was minor traffic the first two days with only five respondents on October 17th and 18th , but a whopping 629 more surveys were completed on the 19th. A total of 1699 respondents were recorded over a five-day period leading the author to determine the survey had been infiltrated by “Bots” and to shut the survey down. Bots are automated software programs that mimic human behavior and are often attracted to survey links posted on social media (Shaw et al., 2024). Advanced bots can learn to answer

surveys, becoming more proficient with more interactions and thus more difficult to detect (Shaw et al., 2024). To ensure data integrity when employing survey research, Shaw et al. (2024) recommends *bot detection tactics* (BDTs) as methodological strategies to prevent bots from impacting research. Further, researchers should use more than one type of BDT to effectively detect bots particular as some advanced bots are developed through machine learning and can generate increasingly more sophisticated and human-like answers (Shaw et al., 2024). One recommended way to deflect bot participation is through inclusion of a reCAPTCHA test (Shaw et al., 2024), which requires the respondent to identify themselves as a human before proceeding to the survey. The reCAPTCHA test is a feature available in the Qualtrics settings, but the author failed to activate it the first five days of the survey being opened. Another BDT is to use reverse coded items within the survey, however neither the TSES or the SOSI's instructions required reverse coding and I had not employed this prior to activating the survey. I reposted the survey October 23, but to prevent further infiltration of bots, I used the reCAPTCHA feature which screened out 154 of the last 298 responses which were collected between October 23, 2023, to November 27, 2023, when the survey was ended.

Following Shaw et al.'s (2024) recommendations, I used more than one BDT to detect bots through a gated process. There was a total of 1,991 survey respondents. Following deletion of incomplete surveys (n = 158; 7.9%), survey responses were reviewed for unusual time/date responses such as multiple survey responses beginning and ending within seconds of one another. Since the Qualtrics program estimated the survey to take nine minutes, and the preview participants reported completing the survey in 7.33, 14.3, and 9.25 minutes, it was determined that no person could possibly read and answer the questions in less than five minutes. Therefore, all the survey responses lasting less than five minutes (n = 80; 4.0%) were excluded. An upper

time limit was not included since the survey was not designed to allow applicants to save and return to complete the survey later. It is possible lengthy responses are due to the respondent taking a break and returning to complete the survey at a different time without exiting the survey.

Questionable time/date responses were flagged for further review. Next, name and email patterns were reviewed. Emails were flagged as suspicious if they failed to correlate with the participant's provided name or if they appeared to follow certain patterns (e.g. FirstnameLastnameXXX@gmail.com; n = 388; 19.5%). Responses that were flagged for having both questionable time/date patterns and email patterns were assumed to be fraudulent and were excluded (n = 1273; 64.1%). The remaining responses were then reviewed for inconsistent item responses (Shaw et al., 2023), such as non-states on the question requesting the participant to identify the state in which they taught. An additional four respondents (n = 4; 0.2%) were excluded based on inconsistent item responses. After eliminating suspect respondents, there were 88 (n = 4.4%) I believed to be real that were included for analysis.

Procedures were also implemented to prevent non-sampling errors created during data transfer. I employed three approaches including ensuring data fell within valid ranges, reviewing the database to ensure contingency-type items were completed accurately, and reviewing the data entered for illogical codes or patterns in missing data (Shaw et al., 2023).

Qualitative Procedures

Population and Sampling

For the qualitative portion of the project, I used maximum variation sampling to identify subjects from the pool of willing participants from the quantitative portion. Maximum variation sampling can be used to obtain a broad understanding of a phenomenon and is often used in mixed-methods design (Kahlke, 2014). I wanted to delve into teacher self-efficacy of justice-

involved juveniles by interviewing survey participants on how they developed high levels of TSE. To identify top scorers in total TSE and in the four sources of mastery, the TSE scores were compared to scores on each of the four sources. Cases that were duplicated within the top 15 of total TSE and the top 15 scorers for each source of mastery were identified and written into a list. For instance, the top 15 scorers of TSE were compared to the top 15 scorers in mastery experience. Cases that were in top 15 scores of both lists were identified. Then the process was repeated for each of the other three sources of mastery. A list of 10 was made for mastery experience, vicarious learning had six, verbal persuasion had seven cases, and four for emotional/physiological states that fell within the top 15. From these four lists, repeated cases were compared. All but one of the cases were duplicated within the four lists. For instance, #2 appeared as having high scores on all four sources of efficacy and thus appeared in all four lists. Whereas #30 appeared as a high scorer in only the verbal persuasion source list.

To determine which cases to choose for interviews, I first eliminated those cases that had indicated they were interested in the initial drawing only and not in interview participation (n = 2). Then I tried to choose the highest scorers from each category, however I had to shift around within the top 15 scores to ensure I had two cases represented from each source of efficacy that were not being used as a high score in another source of efficacy. As I was interested in getting representative data from all four sources of efficacy, I attempted to get two participants who had scored high on TSE and one of the sources of efficacy. However, when scores were computed, participants who scored high in one source of efficacy often scored high in other sources as well. According to Creswell and Poth (2018), the number of participants depends on the qualitative research approach with between six and 20 participants being sufficient to ensure data saturation and rich description of the research topic. Although, I attempted to choose eight participants with

high scores on teacher self-efficacy and high levels on one of the four sources of efficacy, I was unable to get this many participants. My final recruitment efforts resulted in five educators with high TSE scores and high scores in at least one of the four sources of efficacy.

Qualitative Instrumentation

I conducted one-to-one interviews via Zoom with five volunteer participants chosen from high scores on Total TSE and at least one of the four sources of efficacy. Interviews were scheduled according to participant preference and schedule. To minimize researcher/collector bias, I utilized a semi-structured format to facilitate the interview process (Creswell, 2009). Interview questions, or probes, were developed based on patterns from the quantitative data and previous TSE research. Using patterns from quantitative data allowed for more in-depth evidence, or thick description, of the impact of the four sources of efficacy on levels of TSE in educators of justice-involved juveniles (Creswell, 2009). See Appendix A.8. for the protocol used for guiding the interviews.

To facilitate trustworthiness, I video and audio recorded each interview so it could later be analyzed and interpreted. Before beginning each interview, I read and screen-shared the consent document so the participants could follow along at their leisure. Verbal consent was obtained to audio and video record the interview. I began recording the interview via Zoom once consent was obtained. The interview recording was saved on the university's password protected network until it was transcribed and then was deleted. A copy of the consent form was provided to participants via email.

Mixing Method

Mixing refers to the merging of qualitative and quantitative data (Creswell & Plano Clark, 2018). In explanatory sequential research, the researcher is interested in collecting and

analyzing quantitative data followed by a second phase of qualitative data collection and analysis that builds upon the first phase (Creswell & Plano Clark, 2018). The sequential explanatory design is straightforward and easy to implement because the stages fall into clear, separate phases (Creswell, 2009). Sequential strategies have the benefit of allowing for (a) data transformation, or quantification of qualitative data, (b) exploration of outliers, (c) development of instruments or scales, and (d) examination at multiple levels (e.g., exploration at the population and the individual levels). A major weakness of the design is the length of time required for data collection of two separate phases with equal priority (Creswell, 2009).

The integration of quantitative and qualitative data occurs at more than one point in this type of research (Creswell & Plano Clark, 2017). In this study, mixing will occur at two points. The first was the integration of findings from the quantitative results into the probes used for the qualitative portion. Additionally, the quantitative data and its results were used to identify high-scoring participants for the qualitative data collection. The second point of mixing occurred after all data has been collected and analyzed individually. This final point of integration involved reflection on quantitative and qualitative results and how they do or do not confirm findings.

Methods of Analysis

Quantitative Analysis

Data obtained through the Qualtrics Survey were reviewed for Bot activity as previously described. The data meeting expected guidelines were transferred into Microsoft Excel for the purpose of data cleanup and coding. Data were then transferred to the SPSS statistical analysis program for analysis. The data gathered through the demographic portion of the survey were categorical which allowed me to determine frequencies of the demographic items. The data were then analyzed for descriptive statistics including measures of central tendency (e.g., mean,

median, and mode). The three sections of data (e.g. demographic, TSES, and SOSI) were analyzed for descriptive statistics such as measures of spread, including standard deviations and variance. The three sections were also analyzed through non-parametric measures of variability (e.g., Kendall's Tau-b, the Kruskal-Wallis test, and the Freidman test) to identify relationships among factors that are related to TSE of the sample of educators of justice-involved juveniles. Following is a description of the analysis methods used in this study.

I used descriptive statistics to examine demographic variables of educators of justice-involved youth in special settings. I also used descriptive statistics to examine how this group of educators scored on Total TSE, Efficacy in instructional Strategies, Efficacy in Classroom Management, and Efficacy in Student Engagement, mastery experiences, vicarious learning, verbal persuasion, and emotional/physiological states. Descriptive data allowed me to explore the distribution of scores across each scale score by observing means and frequencies, as well as to examine relative strengths and weaknesses in TSE (TSES) and source of efficacy (SOSI) scores.

To explore how teachers score on Total Teacher Self-Efficacy and if demographics relate to total TSES, total SOSI, grouped items, or individual item scores, I used nonparametric correlational analysis (Kendall's Tau-b) and comparative inferential tests (Kruskal-Wallis and Friedman tests) to compare TSES scores across different demographic sub-groups. Nonparametric analysis was used since the data was primarily ordinal and nominal measures and thus not appropriate for more traditional parametric analysis. Correlation analysis allowed me to gauge the strength and direction of possible linkages between pairs of variables. This allowed me to evaluate possible differences in average TSES scores across subgroups as defined by demographic variables. I also explored the four sources of efficacy (mastery experiences,

vicarious experiences, verbal persuasion, and emotional/physiological states) for relations to total TSES, Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement scores. I used correlation analysis to reveal the extent to which variations in demographic data corresponds to fluctuations in TSES scores. Comparative inferential tests allowed me to compare groups. By comparing group mean averages, I could examine disparities in self-efficacy beliefs across demographic groupings. I also used comparative inferential tests to explore the relation between the four sources of efficacy (mastery experiences, vicarious experiences, verbal persuasion or emotional/physiological states) with TSE.

Qualitative Analysis

Qualitative research enabled the exploration of individual educator experiences. This is a valuable piece of the study as it serves as a vehicle for inspection of perceptions and interpretations of educators of justice-involved juveniles regarding their teaching competencies. The generic qualitative approach, or interpretive approach, allows researchers to "play and make advances by deviating from methodological prescriptions" (Kahlke, 2014, p.13). Generic studies refuse to fully commit to any one established methodology, but instead may draw from a single methodology, but deviates from its intent, rules, or guidelines in as seen as beneficial to the study (Kahlke, 2014). Notably, generic studies can draw on strengths of established methodologies while allowing the researcher to remain flexible (Kahlke, 2014). Additionally generic qualitative approaches are inductive, most often using open codes, categories, and thematic analysis (Kahlke, 2014). Within generic qualitative methods, there are generally two approaches to data interpretation. The first, qualitative description, focuses on summarizing and reporting data without a predetermined worldview (Kahlke, 2014). Qualitative description offers flexibility to explore topics without generating theory. The second is the interpretive description design in

which researchers interpret findings in relation to each other and go beyond simply reporting data (Kahlke, 2014). For my purposes, I am using the qualitative descriptive approach because I am interested in providing a straightforward, comprehensive review of Teacher Self-Efficacy experiences of educators of justice-involved juveniles. Qualitative description is particularly useful when the researcher is attempting to understand participants' experiences, perceptions, or behaviors without imposing theoretical frameworks or interpretations (Kahlke, 2014). As my purpose is to delve into what enhances feelings of efficacy in educators, qualitative description is well-suited. Further, as I am interested in understanding nuances of teacher self-efficacy, qualitative description helps identify common descriptions and patterns in participant responses. Additionally, qualitative description is more suited to the purpose of this study as it is not intended to test a strategy or theory, nor to confirm or disprove a hypothesis. Instead, it is an attempt to deeply examine the perceptions educators of justice involved juveniles have that have influenced their teaching efficacy. I am especially interested in exploring participant perceptions of their own self-efficacy and what factors have influenced development of their TSE.

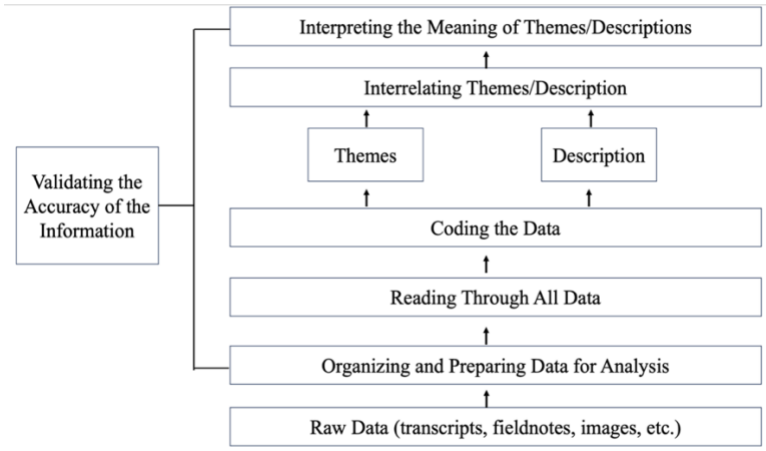
Once I completed the interviews, I began the process of analysis. In qualitative research, the process of data analysis involves making sense of text and image data and is an ongoing process involving continual reflection (Creswell, 2009). Creswell provided a model for data analysis in qualitative research. The model consists of interrelated stages that may not be presented in the order depicted in Figure 6.

Following this model, my first step was to organize and prepare the raw data for analysis. Through the NVivo R1 (2020) software, I transcribed the interviews, typed up field notes and observations, and sorted and arranged the information according to each participant's case. Once this was completed, I read through all the data to develop a general sense of the information and

to reflect on the overall meaning (Creswell, 2009). Reflection at this stage included asking questions such as: What are the general ideas participants are conveying? What is the tone? What is the impression of the overall depth, credibility, and use of the information? (Creswell, 2009).

Figure 6

Data Analysis in Qualitative Research (adapted from Creswell, 2009)



The next step was to initiate the coding process. This consisted of organizing the material into chunks or segments before beginning interpretation of the meaning of the information (Creswell, 2009). It involved segmenting phrases, sentences, paragraphs, or images into categories, and labeling the category with a term based in the actual language of the participant, or *in vivo* terms (Creswell, 2009). Through an iterative process beginning with a preliminary organization scheme based on prior literature and quantitative survey responses, I began with categories based on TSE (Total TSE, Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement) and the four source of teacher self-efficacy (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states). I followed Creswell's (2009) recommendations to analyze data by assembling the data material and performing a preliminary analysis based on (a) Codes on topics readers would expect to find based on the literature and logical thinking, (b) Codes that

were surprising and were not anticipated at the beginning of the study, (c) Codes that were unusual, and were of conceptual interest to the reader, and (d) Codes that addressed a larger theoretical perspective of the research.

A final step in data analysis was to interpret the qualitative results. In my interpretation I attempted to relate lessons learned through personal interpretation and lessons learned through similarities or deviations from the literature or theories. I attribute much of my TSE to mastery experiences. I have 18 years of special education teaching experience. I have experienced a variety of teaching settings including PreK special education teacher, special education teacher at a juvenile justice facility, and special education teacher for students with moderate/severe disabilities. With each experience, my self-efficacy for teaching increased to include the new setting and student population.

Mixing Method

In explanatory sequential research, the researcher collects and analyzes quantitative data compounded by a second phase of qualitative data collection and analysis that builds upon the first phase. In this study mixing occurs at two points. The first is through integration of the survey results to identify educators with high scores on TSE (as measured by the TSES) and high scores in at least one of the four sources of efficacy (as measured by the SOSI). I also used findings from the survey results to help develop the probes used in the interview portion. There was an additional mixing at the culmination of data collection and analysis. This second mixing involved validation or non-validation of survey results based on interview participant responses.

Reliability, Validity, and Generalizability

Quantitative validity refers to how accurately the measures used in a study are measuring the concepts being studied (Rubin, 2013). For my study I am using TSES (Tschannen-Moran &

Woolfolk Hoy, 2001) to measure total TSE as well as components of TSE (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement). There is no available scale to measure TSE of educators of justice-involved juveniles, therefore I chose the TSES because of its reliability, validity, and consistency (Tschannen-Moran & Woolfolk-Hoy, 2001). I chose to use an unpublished scale to measure the four sources of efficacy because no published scales were available that accurately measured the four sources of efficacy without combining factors (e.g., mastery experience and social persuasion, see Poulou, 2007) or provides evidence of validity (see Hepner, 1994). Additionally, neither of these scales truly attempted to identify how educators gain efficacy, while I felt the Sources of Self-Efficacy Inventory (SOSI; Kieffer & Henson, 2000) provided enough delineation between the four sources to be sufficient for my study. I employed triangulation of data sources to ensure trustworthiness. Triangulation occurs through the examination of data from multiple sources and the use of these as justification for identified themes (Creswell & Creswell, 2018). In my study, I used triangulation of current literature, quantitative findings, and qualitative findings. Further using triangulation allowed me to provide an additional level of trustworthiness to my findings.

Qualitative validity involves the researcher checking for the accuracy, or trustworthiness, of findings (Gibbs, 2007). Validity can be considered a strength of qualitative research as it is based on determining whether findings are accurate from the standpoint of the researcher, participant, or readers (Creswell & Miller, 2000). Additionally, some aspects of validation occur through the iterative process of coding (Creswell & Creswell, 2018).

Member checking was another strategy I employed to increase trustworthiness. Member checking occurred through interaction with interviewees, allowing them to confirm or deny

identified points from their survey results. It also allowed for elaboration on topics before completion of the study (Creswell & Creswell, 2018). Much of the member checking in this study occurred as part of the interview process in which they elaborated on aspects of TSE and the four sources of efficacy identified during the survey.

Reliability in qualitative research refers to a consistent approach across different researchers and different projects (Gibbs, 2007). Several reliability procedures were employed as recommended by Gibbs (2007). I used a semi-structured interview model to ensure participants were asked the same questions, although this model allows for variation depending on participant answers. Additionally, transcripts were checked to ensure there were no obvious transcription errors.

Summary of Method

I employed the data collection phases of a sequential explanatory mixed-methods design to explore characteristics of educators of justice-involved juveniles and their feelings of teacher self-efficacy for working with this high-need population of students. Recruitment of survey participants occurred primarily through educational listservs and social media. The survey was opened from October 17, 2023, and ended November 30, 2023. The survey contained three sections: a demographic section, the TSES (Tschannen-Moran & Woolfolk Hoy, 2001), and the SOSI (Kieffer & Henson, 2000. At the conclusion of the survey, respondents had the opportunity to provide their email for inclusion in gift card drawings and/or possible involvement in the interview portion of the study. The quantitative portion of the study was conducted first, with the qualitative phase following. I maintained collected data in a secure manner. I analyzed data separately with the results of each analysis being compared for triangulation of results.

Chapter 4

Results

The education of justice-involved juveniles is an understudied topic (Development Services Group Inc, 2019); thus, little is known about this population of teachers Therefore, the first step in exploring teacher self-efficacy of educators of justice-involved juveniles is to gain an overall picture of the characteristics of the sample group. As a brief reminder, the quantitative data were collected via an online survey which participants had the opportunity to complete anonymously or to provide contact information for inclusion in a drawing and for possible interview inclusion. Educators were recruited via a promotional flyer through listservs and social media. The survey consisted of three tools: a demographic characteristics section, the Teacher Sense of Efficacy Scale (TSES), and the Sources of Self-Efficacy Inventory (SOSI). The first portion of the online survey was the demographics and background section (See Appendix A.6. for the survey). This portion of the survey was designed to gain biographical information, and information about the ways in which educators gain their feelings of self-efficacy. This chapter will present outcomes of the demographics section of the questionnaire in an attempt to paint a picture of the current population of educators of justice-involved juveniles.

Descriptive statistical results including mean, median, mode, and standard deviation can be used to help describe the participant population (Rubin, 2013). This data can help to quantify characteristics, backgrounds, and experiences, providing readers with a better grasp of commonalities and differences in teaching attributes in a population (Rubin, 2013). In particular the reader will learn about characteristics of participants including gender, age, ethnicity, race, education level, education field, years of experience in teaching, years of experience teaching in special setting, state, teaching assignment (e.g., alternative school, short-term detention, minimum security juvenile facility,

maximum security juvenile facility), age level and gender of students, teaching content and subject areas, caseload size, class size, instructional setting (e.g., one-to-one, small group, whole group), and job-specific professional development. This section is intended to answer *RQ1) Are there common patterns or themes in demographic characteristics of this group of correctional educators of justice-involved juveniles?*

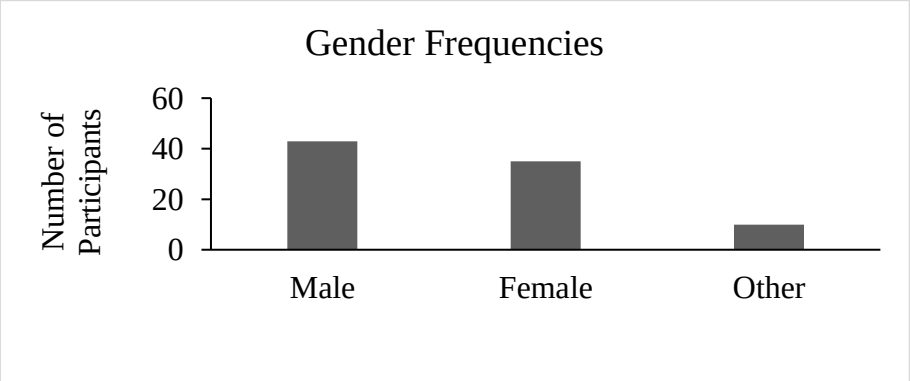
General Demographic Analysis of the Sample Population

Respondents' Gender

The initial response rate of 1,991 was reviewed for non-human interactions, reducing the total number of participants to 88 (4% of participant pool). Of the 88 cases, there were 43 participants that reported being male (48.9%) and 35 participants (39.8%) that reported their gender as female. Ten (11.4%) people reported "other" genders. For simplicity in organizing the data, the categories of Agender, Transgender, all, and other were collapsed into this category. See Figure 7 for a frequency distribution of the dispersion of respondents' gender.

Figure 7

Gender Frequencies

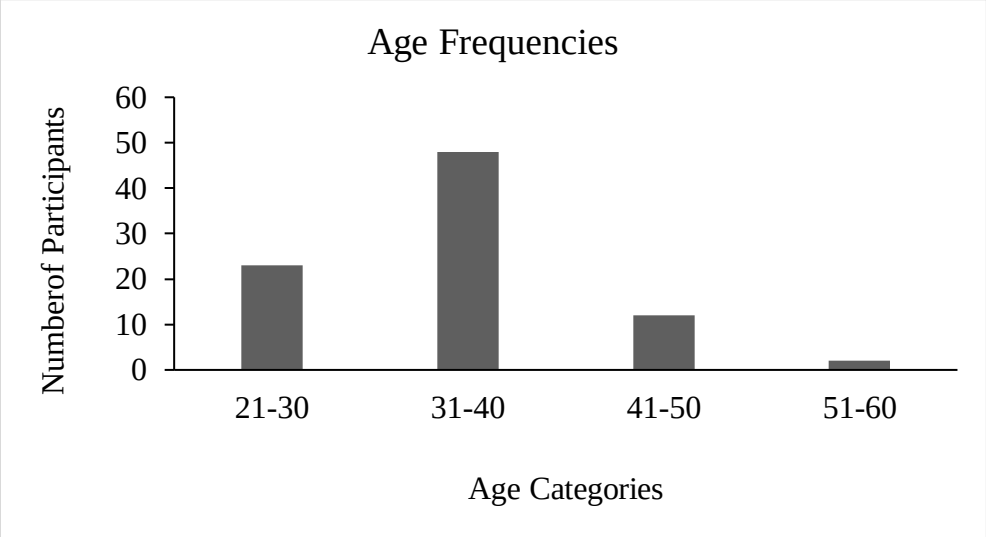


Respondents' Age

Almost half of respondents (n = 48, 56.5%) were between the ages of 31 and 40, and almost a fourth were aged 21-30 (n =23, 27.1%). Twelve respondents were aged 41-50 (n=12, 14.1%) and 2 (2.4%) reported being older than 50. Figure 8 is a frequency distribution histogram of the dispersion of the survey respondents' age.

Figure 8

Age Frequencies

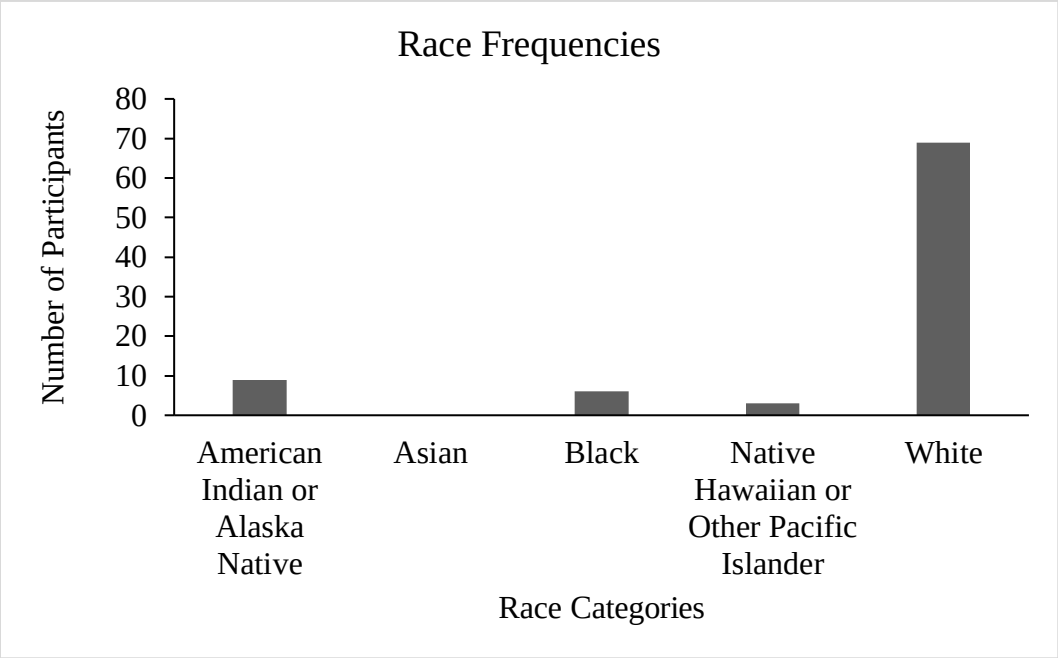


Respondents' Ethnicity and Race

Most respondents were Not Hispanic or Latino (n = 59, 70.2%), while 25 (29.8%) were Hispanic. Most of the participants (n = 69, 79.3%) identified as white, with nine reporting being American Indian or Alaska Native (n = 9, 10.3%), six reported being Black (n = 6, 6.9%), and three (n = 3, 3.4%) reported being Hawaiian or Other Pacific Islander. Figure 9 is a frequency distribution representing respondents' race.

Figure 9

Race Frequencies



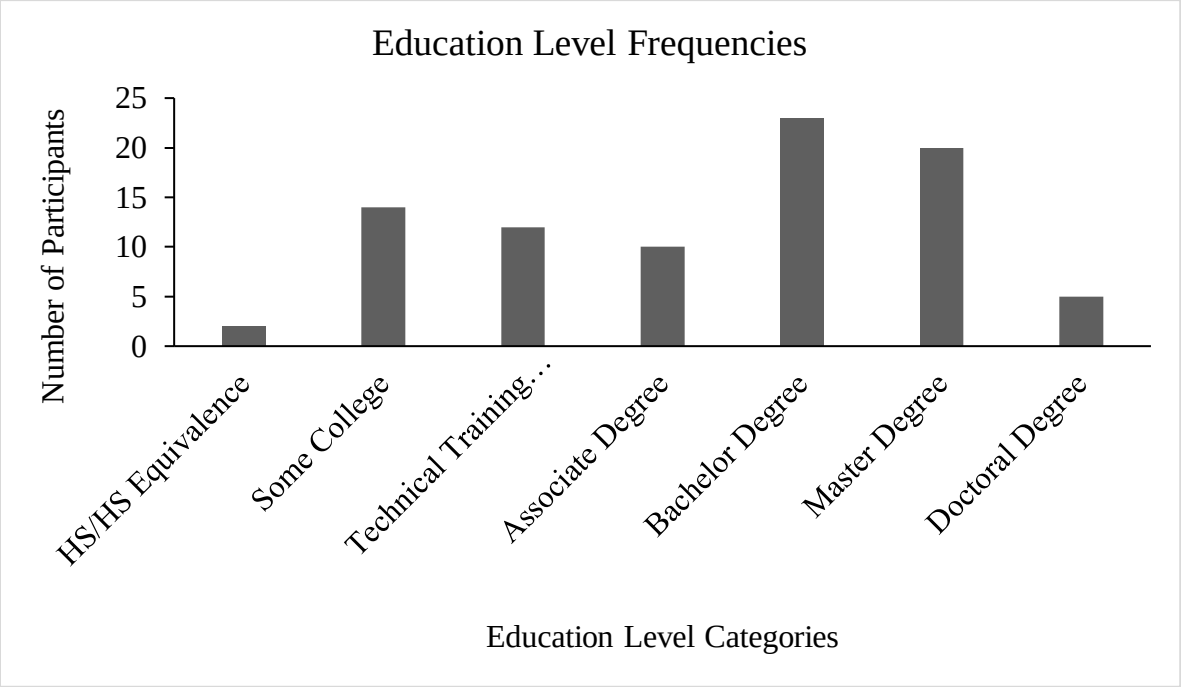
Respondents' Education Level

Most respondents indicated having a bachelor's degree (n = 23, 26.4%) or master's degree (n = 20, 19.8%). Twelve participants (n = 12, 14.9%) had technical or training certifications. Only five respondents reported having a doctorate (n = 5, 6.3%). Questionably there were several respondents who reported having "some college" (n = 14, 16.1%) or an associate's degree (n = 10, 11.5%). The number of respondents reporting on having less than a traditional bachelor's degree of some kind to teach makes me wonder if the respondents that answered this way were alternatively certified in some way. It is difficult to explain since states are so varied in their requirements for teachers. Further I would think it was even more difficult to get teachers to work in juvenile corrections. However, my survey did not allow for elaboration of this phenomenon, and I can only make assumptions about the highly qualified status of the

respondents. See Figure 10 a frequency distribution histogram of the dispersion of the survey respondents' education level.

Figure 10

Education Level Frequencies

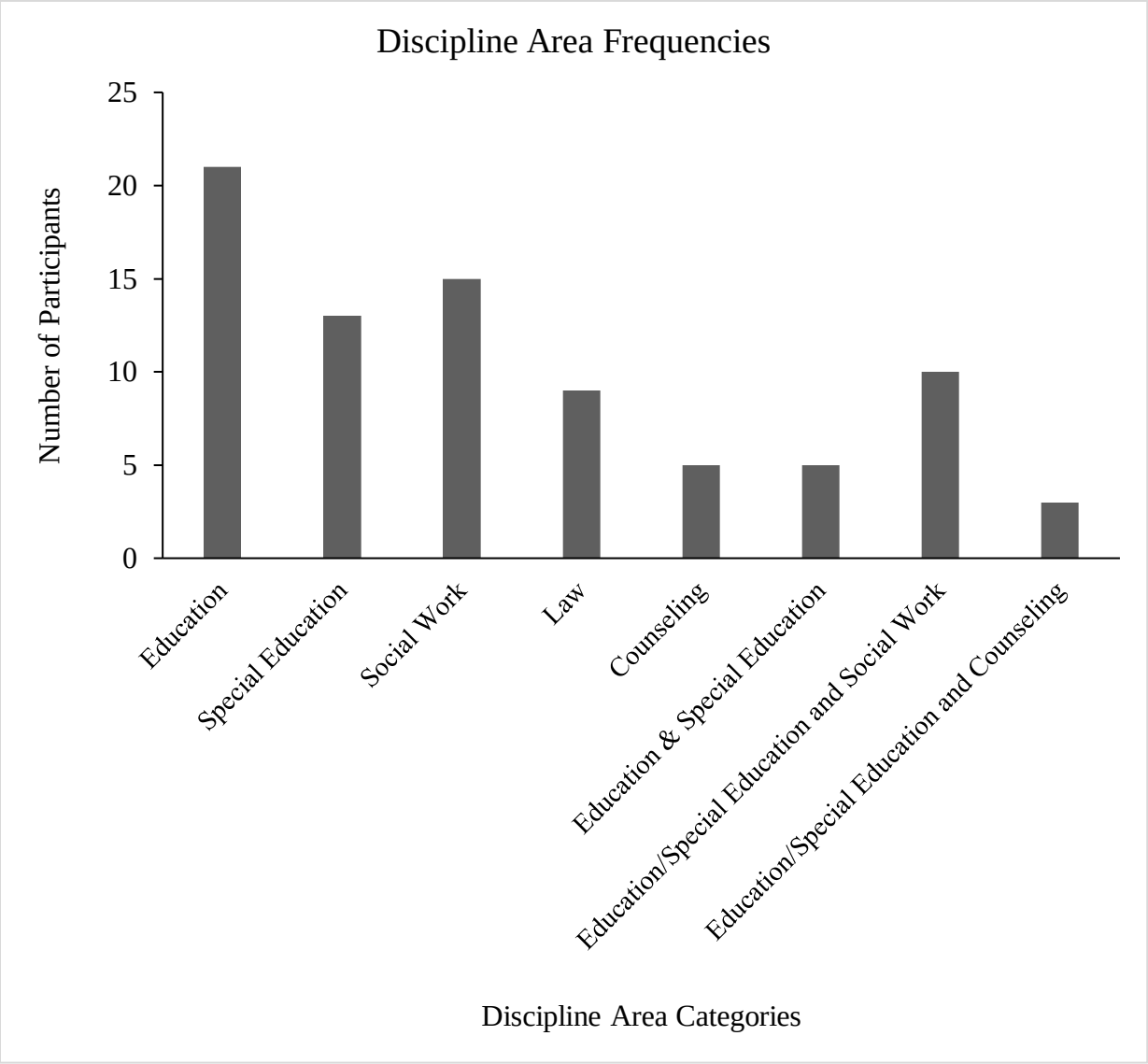


Respondents' Discipline Area

A quarter of teachers reported their discipline area was in education (n = 21, 25%). An almost equal number of respondents had special education (n = 13, 15.5%) or social work (n = 15, 17.9%) backgrounds. Fewer indicated they had law (n = 9, 10.7%) or counseling (n = 5, 6.0%) backgrounds. Several respondents reported combination discipline areas. Five (n = 5, 6.0%) reported having education and special education backgrounds, ten (n = 10, 11.9%) had education/special education and social work, and three (n = 3, 3.6%) reported education/special education and counseling backgrounds. Only one (1.2%) respondent reported having emergency certification. See Figure 11 for a frequency distribution histogram of the dispersion of the survey respondents' discipline area.

Figure 11

Frequency Distribution of Survey Respondents' Discipline Area



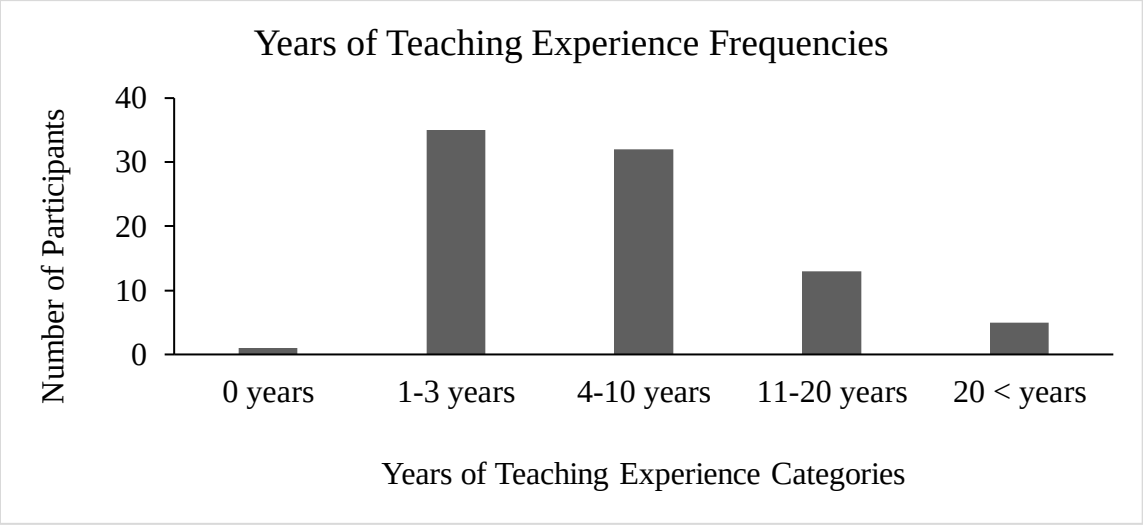
Respondents' Teaching Experience

A large portion of respondents were relatively new to the field of teaching. Slightly less than half of respondents reported having only 1-3 years of teaching experience (n = 35, 40.2%), and only slightly less having 4-10 years of teaching experience (n = 32, 36.8%). Fewer respondents had 11-20 years of teaching experience (n = 13, 14.9%), and only five (5.7%)

reported having more than 20 years of experience. See Figure 12 for a frequency distribution histogram of the dispersion of the survey respondents' years of teaching experience.

Figure 12

Years of Teaching Experience Frequencies

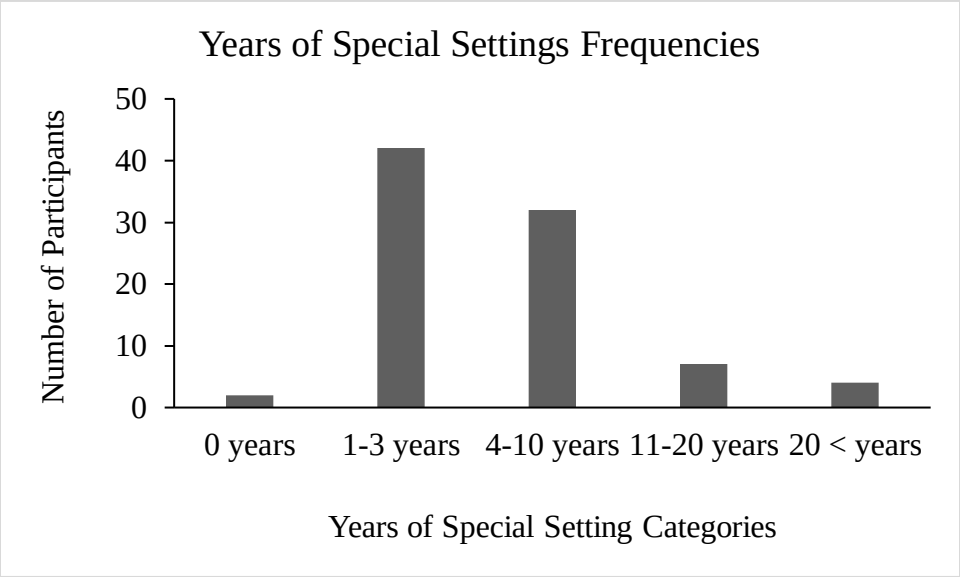


Respondents' Special Setting Experience

Only two respondents reported being brand new to teaching in a specialized placement (n = 2, 2.3%). Most reported having 10 years or less of experience in the special setting. About half of respondents reported 1-3 years of experience in the special setting (n = 42, 48.3%), and about one third had 4-10 years of experience (n = 32, 36.8%). Only seven had 11-20 years (n = 7, 8.0%), and four had more than 20 years of experience in the special setting (n = 4, 4.6%). See Figure 13 for a frequency distribution histogram of the dispersion of the survey respondents' years of teaching experience in the special placement for justice-involved juveniles.

Figure 13

Years of Special Settings Frequencies

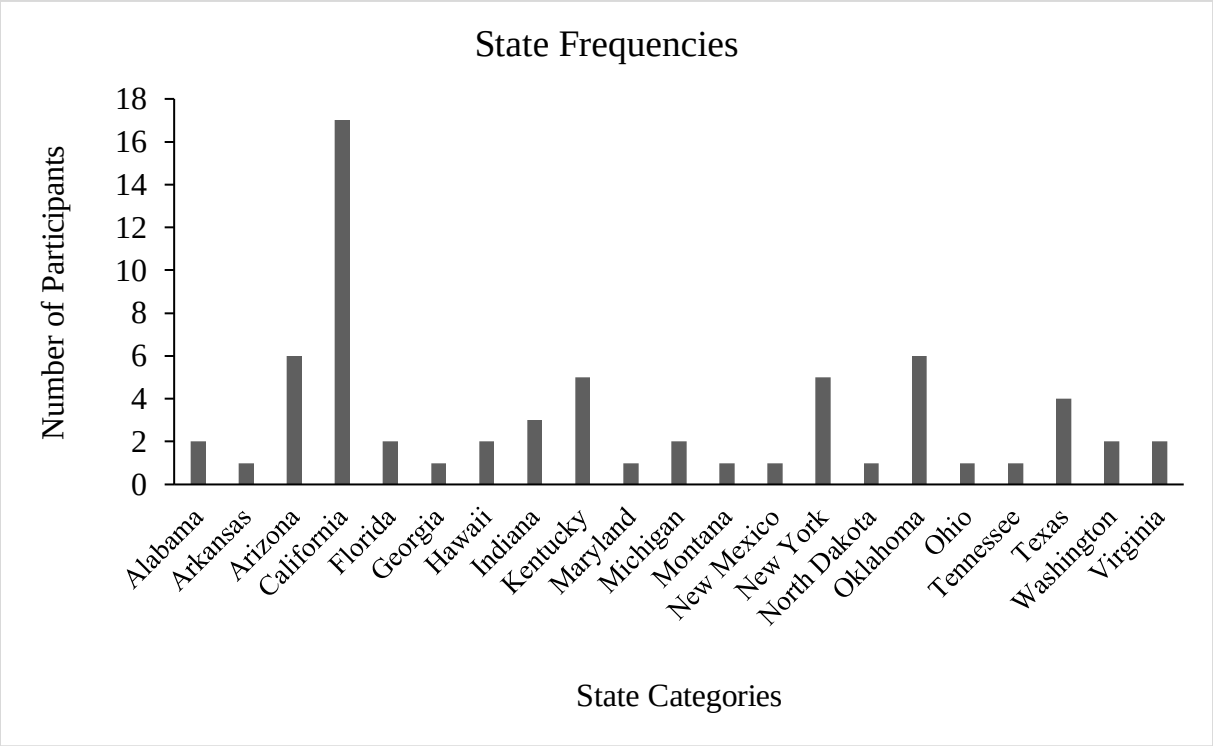


Respondents' State

Although this was not specified within the instructions of the survey, I assume the state provided by respondents is the state of residence and/or employment, which may or may not be the same state they received their educational training. Several respondents chose not to answer this question (n = 22, 18.8%). Of those responding 22 states were represented. Alabama (n = 2, 3.0%), Arkansas (n = 1, 1.5%), Arizona (n = 6, 5.9%), California (n =17, 16.8%), Florida (n = 2, 3.0%), Georgia (n = 1, 1.5%), Hawaii (n = 2, 3.0%), Indiana (n = 3, 4.5%), Kentucky (n = 5, 7.6%), Maryland (n = 1, 1.5%), Michigan (n = 2, 3.0%), Montana (n = 1, 1.5%), New Mexico (n = 1, 1.5%), New York (n = 5, 7.6%), North Dakota (n = 1, 1.5%), Oklahoma (n = 6, 9.1%), Ohio (n = 1, 1.5%), Tennessee (n = 1, 1.5%), Texas (n = 4, 6.1%), Washington (n = 2, 3.0%), and Virginia (n = 2, 3.0%). See Figure 14 for a frequency distribution histogram of the dispersion of the survey respondents' state.

Figure 14

State Frequencies

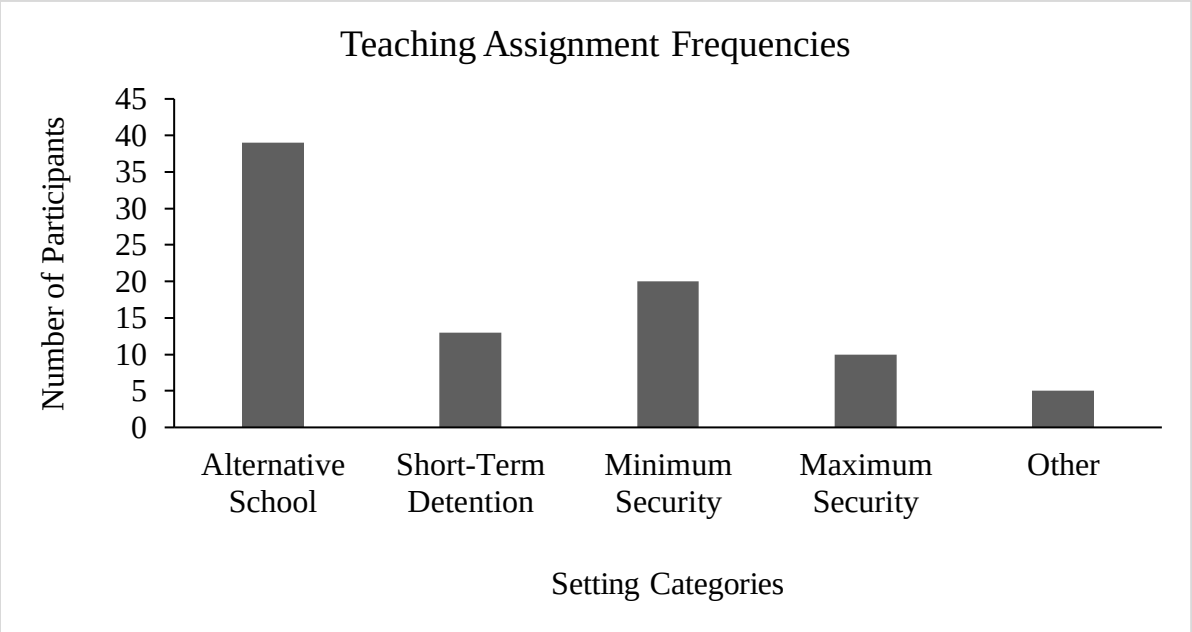


Respondents' Teaching Assignment/Placement

Almost half of respondents reported working at an Alternative School campus (n = 39, 44.8%). Thirteen respondents worked at a short-term detention facility (n = 13, 14.9%), twenty worked at a minimum-security facility for juveniles (n = 20, 23.0 %), 10 reported working at a maximum-security facility for juveniles (n = 10, 11.5%), and four reported "other" (n = 5, 5.7%). See Figure 15 for a frequency distribution histogram of the dispersion of the survey respondents' years of teaching placement.

Figure 15

Teaching Assignment Frequencies

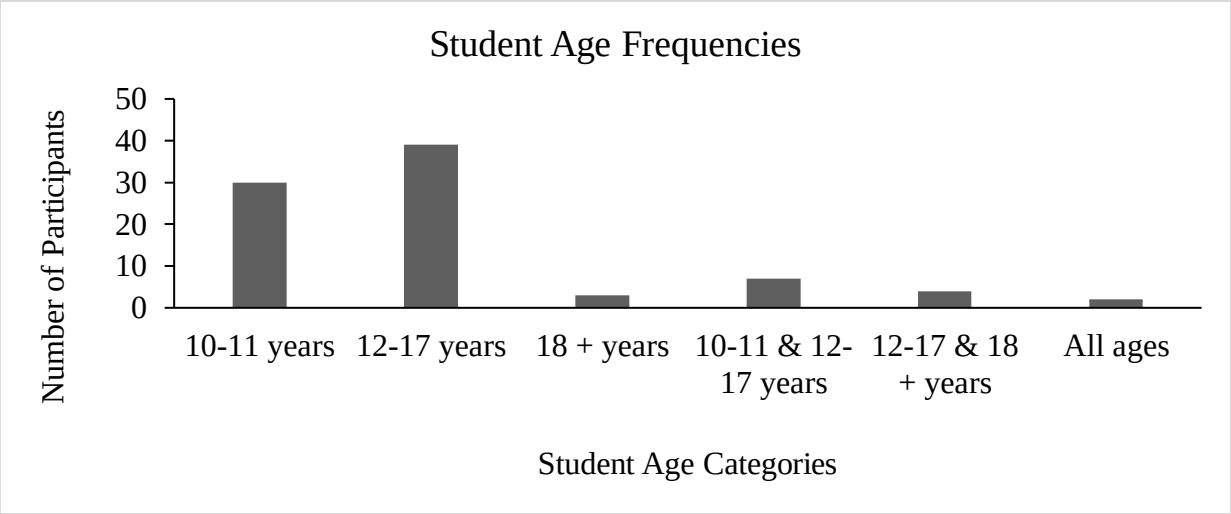


Age of Respondents' Students

Almost half of teachers worked with students aged 12-17 (n = 39, 45.9%) and slightly fewer worked with students between the ages of 10-11 (n = 30, 35.3%). Five respondents reported working with students 10-11 and 12-17 (n = 7, 8.2%). Three respondents reported working with juveniles 18 years and older (n = 3, 3.0%), and four others reported working with juveniles 12-17 and 18 years and older (n = 4, 4.7%). Only two respondents reported working with students 10-11, 12-17, and 18 years and older (n =2, 2.4%). See Figure 16 for a frequency distribution of the dispersion of the age of survey respondents' students.

Figure 16

Student Age Frequencies

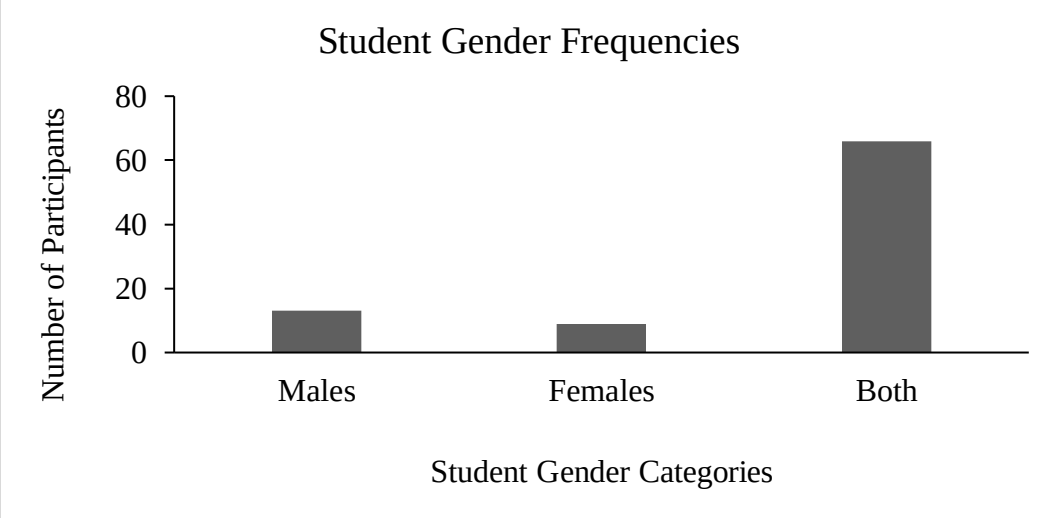


Gender of Respondents' Students

Most participants reported teaching both male and female students within their setting (n = 66, 75.0%). Thirteen reported teaching only male students (n = 13, 14.8%), and even fewer taught in female only facilities (n = 9, 10.0%). See Figure 17 for a frequency distribution histogram of the dispersion of the gender of survey respondents' students.

Figure 17

Student Gender Frequencies

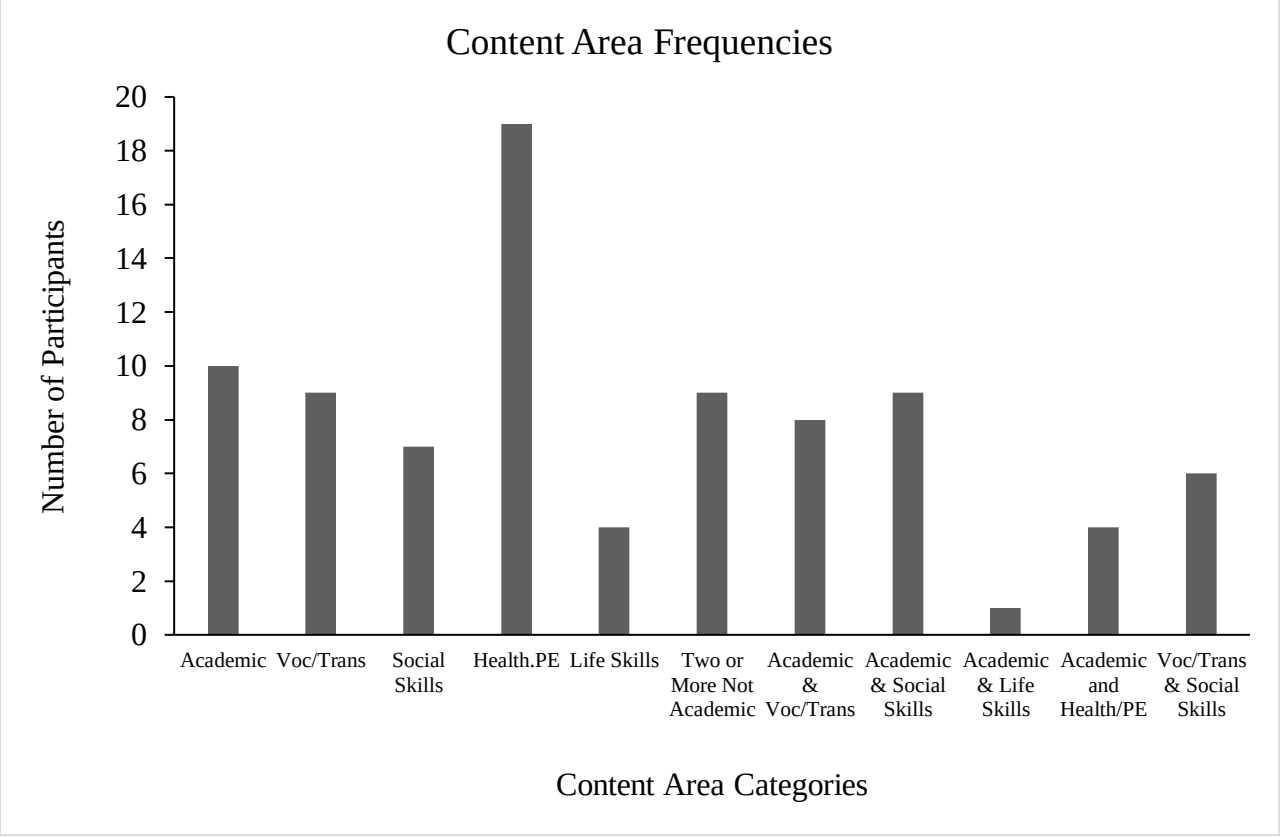


Respondents' Teaching Content Area

Of those reporting single content areas, ten (n = 10, 11.6%) taught academic content, nine (n = 9, 10.5%) vocational or transitional skills, seven (n = 7, 8.1%) taught social skills, 19 (n = 19, 22.1%) taught health/PE, and four (n = 4, 4.7%) reported teaching life or community-based skills. Several respondents reported teaching multiple content areas. Nine (n = 9, 10.5%) reported teaching two or more non-academic areas, eight reported teaching academic and vocational/transition skills (n = 8, 9.3%), nine reported teaching academic and social skills (n = 9, 10.5%), teaching academic and life skills (n = 1, 1.2%), teaching academic and health/PE (n = 4, 4.7%), or vocational/transitional skills and social skills (n = 6, 7.0%). See Figure 18 for a frequency distribution of the dispersion of the survey respondents' teaching content area.

Figure 18

Content Area Frequencies

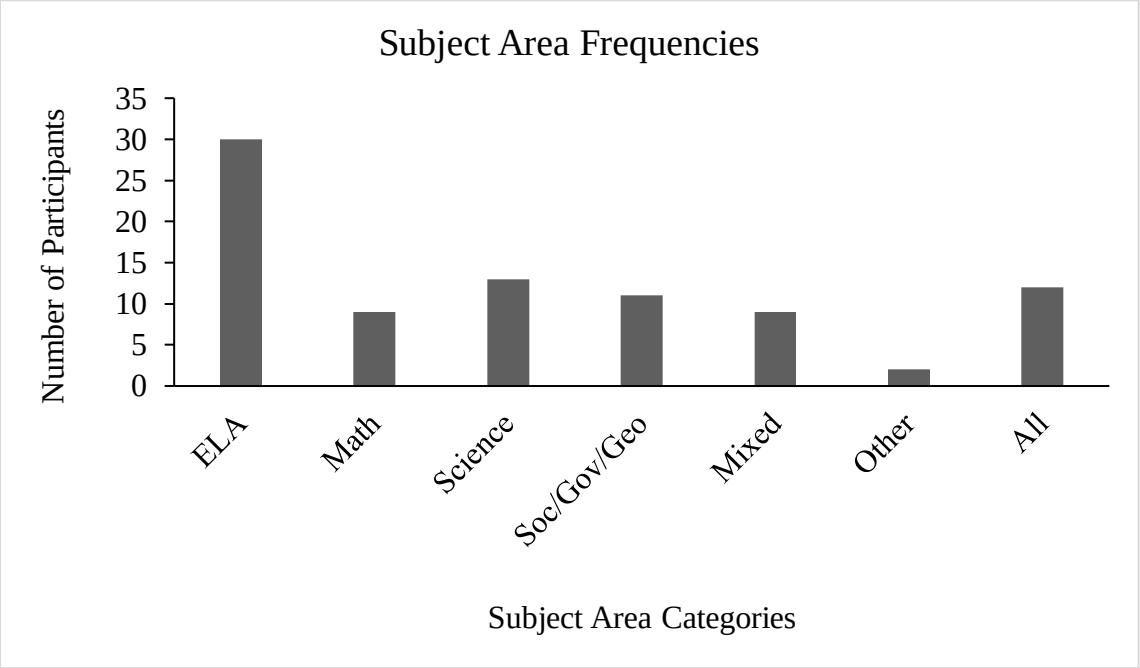


Respondents' Teaching Subject Are

Respondents reported teaching reading/writing/language arts (n = 30, 34.9%), mathematics (n = 9, 10.5%), science (n = 13, 15.1%), or social studies/government/geography (n = 11, 12.8%). Nine (n = 9, 10.5%) respondents indicated teaching a mix of subjects (n = 9, 10.5%), and twelve reported teaching all subject areas (n = 12, 14.0%). Two respondents chose "other" as their subject matter (n = 2, 2.3%). See Figure 19 for a frequency distribution of the dispersion of the survey respondents' teaching subject area.

Figure 19

Subject Area Frequencies



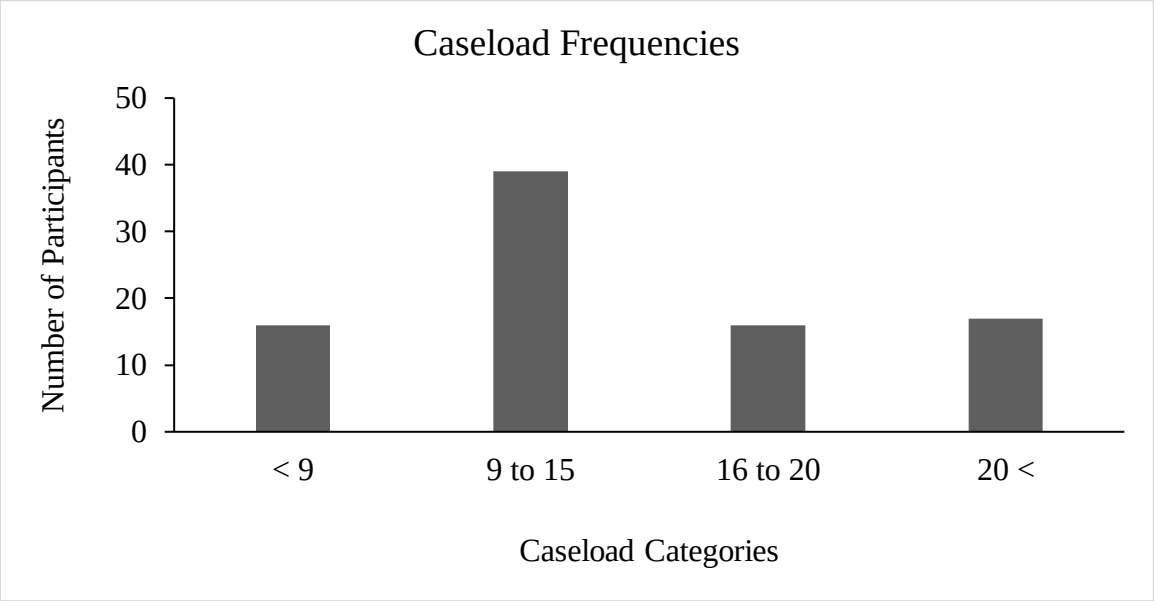
Respondents' Caseload Size

Most teachers reported their teaching caseload between nine and 15 students (n = 39, 38.6%). Equal numbers of teachers reported having caseloads with fewer than nine students (n = 16, 18.2%) and having 16-20 students (n = 16, 18.2%). Slightly less have caseloads between

above 20 (n = 17, 19.3%). See Figure 20 for a frequency distribution of the dispersion of the survey respondents' caseload size.

Figure 20

Caseload Frequencies

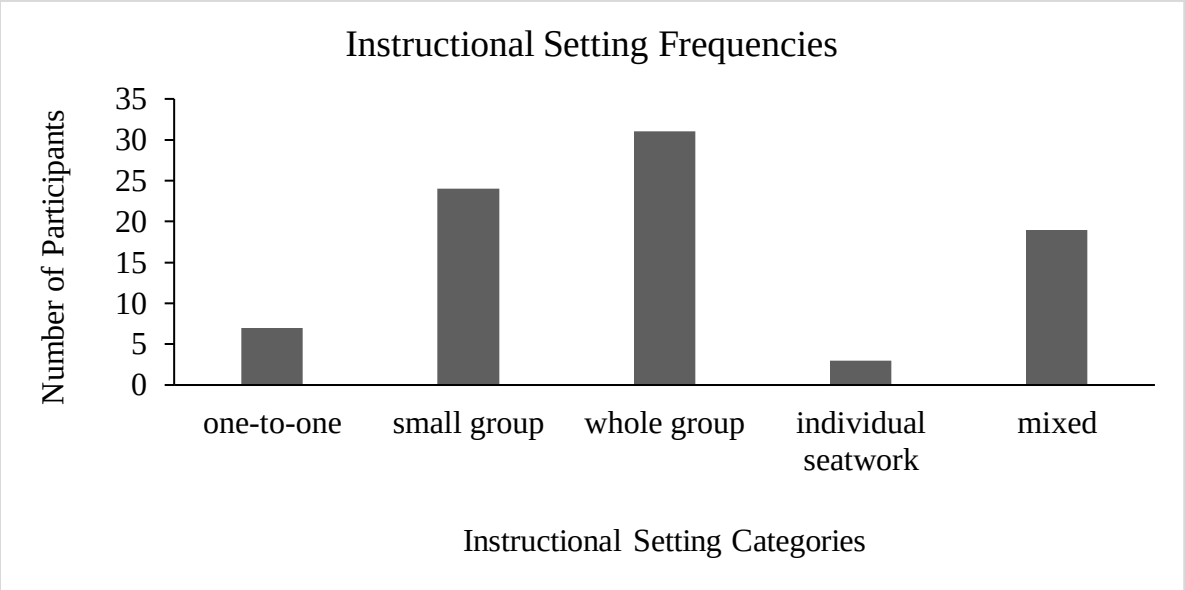


Respondents' Instructional Setting

Instructional setting consisted of one-to-one instruction (n = 7, 8.3%), small group (n = 24, 28.6%), whole group (n = 31, 36.9%), individual seatwork (n = 3, 3.6%), or a mix of settings (n= 19, 22.6%). See Figure 21 for a frequency distribution histogram of the dispersion of the survey respondents' instructional setting.

Figure 21

Instructional Setting Frequencies

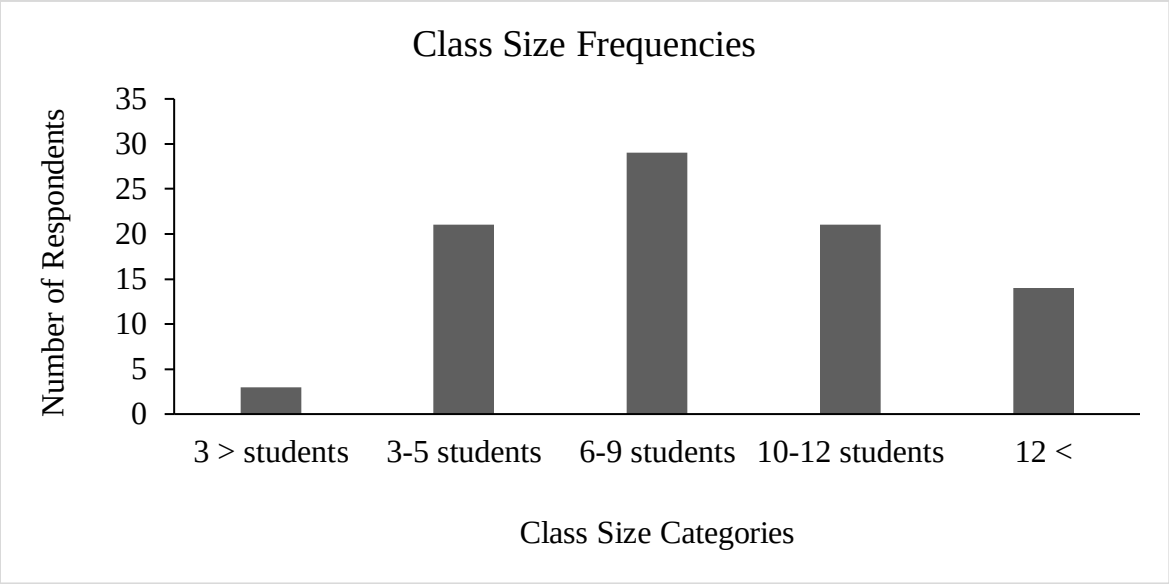


Respondents' Class Size

Teachers reported having variable numbers of students within a class with most reporting having between six and nine students per class (n = 29, 33.0%). Twenty-one reported having between three and five students per class (n = 21, 23.9%) as did those reporting having 10-12 students per class (n = 21, 23.9%). Fourteen respondents reported having more than 12 students at a time (n = 14, 15.9%). Only three respondents reported teaching less than three students at a time (n = 3, 3.4%). See Figure 22 for a frequency distribution of the dispersion of the survey respondents' class size.

Figure 22

Class Size Frequencies

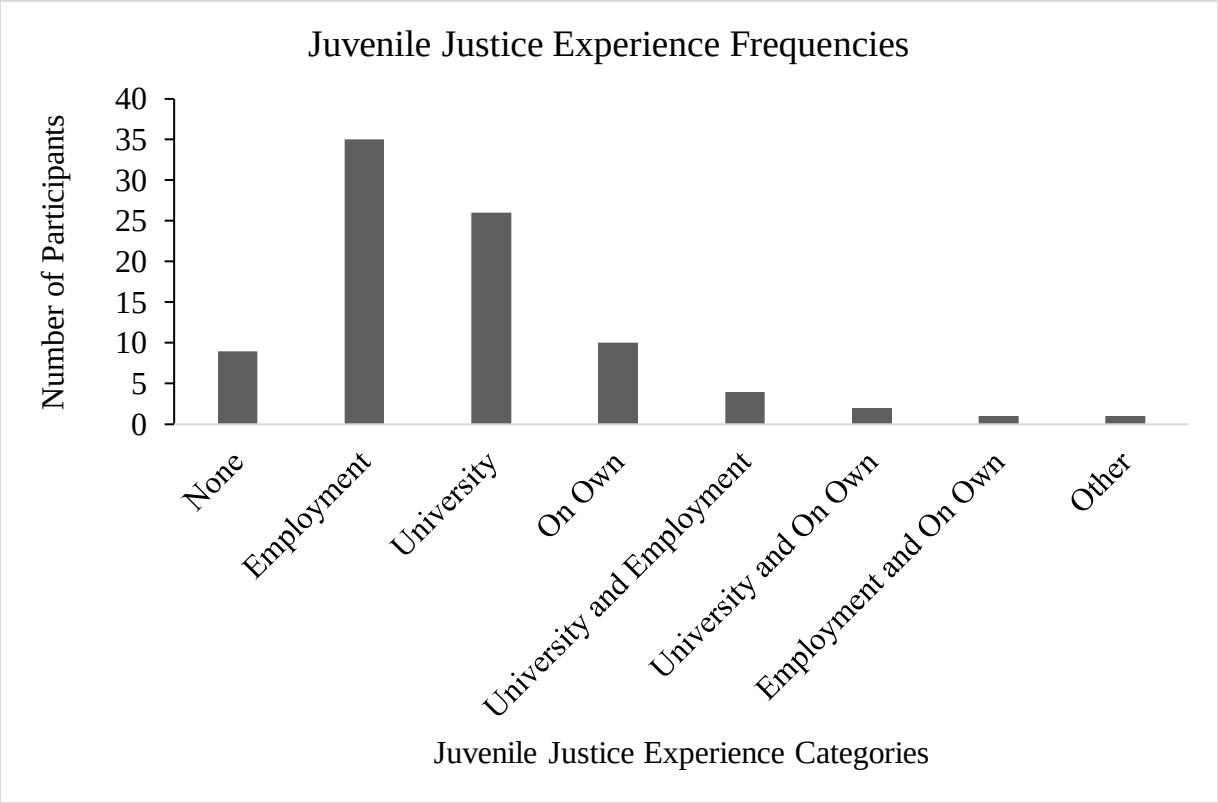


Respondents' Setting-Specific Training

The majority of respondents reported receiving specialized instructional training through employment related professional development (n = 35, 39.8%). Others reported university coursework (n = 26, 29.5%), on my own (n = 10, 11.4%), or "other" (n =1, 1.6%). Only four reported specialized training through coursework and employment professional development (n = 4, 4.5%). University coursework and "on my own" (n = 2, 2.0%), and employment professional development combined with "on my own" (n = 1, 1.6%). Nine respondents reported receiving no training geared toward their specialized populations (n = 9, 10.2%). See Figure 23 for a frequency distribution of the dispersion of the survey respondents' professional development experiences.

Figure 23

Juvenile Justice Experience Frequencies



Summary of Respondents' Characteristics

The data in this section was intended to provide a composite profile of this sample of educators who work with justice-involved juveniles. From this demographic data, I have identified characteristics of this population that helps to better understand educators of justice-involved juveniles and the contexts in which they work. There were slightly more male participants than female, and almost half of all respondents were between the ages of 31 and 40. Most respondents were Not Hispanic or Latino and identified as white. Most respondents had a bachelor's degree or master's degree with most of these being in the field of education. A large portion of respondents were novice teachers having between one and three years of teaching experience. Only slightly fewer respondents were intermediate teachers having between four and

ten years of teaching experience. Most participants reported having ten years or less in a setting designed for justice-involved juveniles. Participants reported being from a variety of states, with representation from 22 states. Most respondents reported working at an Alternative School Campus serving students between the ages of 12-17. A large portion of participants reported working with both genders of students. Most respondents reported teaching single content areas, with the greatest of these being educators who taught Health/PE. However, almost half of respondents reported teaching multiple content areas. As far as subject matter, the greatest number of respondents (34%) reported teaching ELA (English Language Arts) while 26% reported teaching multiple subjects. Most teachers reported having caseloads between nine and 15 students with class sizes between six and nine students. About a third of the respondents reported using whole-group instruction, while slightly less than a quarter reported using a mix of instructional groupings. Most respondents reported receiving juvenile-justice-specific training through their employment (40%) and 10% reported having no population-specific training.

Study Sample Levels of Teacher Self-Efficacy

This section presents the quantitative data from the teacher self-efficacy scales completed by survey participants. As previously mentioned (See Chapter 3), the quantitative portion of the study involved participants completing an online survey consisting of three parts. The first was a demographics questionnaire, the second was the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001), and the third was the Sources of Self-efficacy Inventory (Kieffer & Henson, 2000). The online survey can be found in Appendix A.6. of this document. In this current section, I consider the study data as it applies to respondents' feelings of efficacy as measured by the TSES (Tschannen-Moran & Woolfolk Hoy, 2001) and sources of those feelings as measured by the SOSI (Kieffer & Henson, 2000). The first part of this section refers to

descriptive analysis of the survey responses section and is in response to *RQ2) How do this group of educators of justice-involved juveniles score on Total Teacher Self-Efficacy and the three types of TSE (Efficacy in classroom Management, Instructional Strategies, and Student Engagement) as measured by TSES*? And *RQ4) How do educators of justice-involved juveniles score on Total Sources of Self-Efficacy, and the four sources of teacher self-efficacy (mastery experiences, Emotional/Physiological, Vicarious experiences, and Verbal persuasion) as measured by the SOSI?*

The second portion of this section will refer to correlations and analysis of variance in response to *RQ3) Do demographic characteristics have any relation to TSES Total or types of efficacy scores of educators of justice-involved juveniles?* And *RQ5) Do the four sources of efficacy as measured by the SOSI, have any relation to TSES scores of educators of justice-involved juveniles?*

Descriptive Statistical Analyses

I used descriptive statistics to examine demographic variables of educators of justice-involved youth in special settings. I also used descriptive statistics to examine how this group of educators scored on Total TSE, Efficacy in Instructional Strategies, Efficacy in Classroom Management, and Efficacy in student Engagement, Mastery experiences, Vicarious learning, Verbal persuasion, and Emotional/Physiological States. This allowed me to observe the distribution of scores across each scale score. Descriptive statistics can be used to describe and summarize data (Rubin, 2013). Descriptive statistics are used here to present teacher self-efficacy scores as measured by the TSES and potential sources of efficacy as measured by the SOSI. Descriptive statistics are used with categorical or quantitative data (Rubin, 2013), which is appropriate for the quantitative data derived from these two scales. These statistics include

frequency counts, valid and cumulative percentages, measures of central tendency (e.g., sample population mean, median, and mode), standard deviation, and skewness. Frequency counts will present percentages of the number of respondents according to the differing assessment responses for each of the scales' individual items. These data provide readers with a global view of how this group of educators of justice involved juveniles responded to each scale item. Measures of Central Tendency allows the researcher to present typical, or most common, scores on the teacher self-efficacy factor groups (e.g., Efficacy in Classroom Management, Efficacy in Student Engagement, and Efficacy in Instructional Strategies) and the sources of self-efficacy factors (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states). Sample mean indicate the most common value within a set of data (Rubin, 2013). The median is the center of the data, where 50% of scores fall above, and 50% of values fall below it (Rubin, 2013). The mode provides additional information by observing the most popular answer selection for each item (Rubin, 2013). Additional information can be gathered through observation of the symmetry of the data, with skewness values helping the researcher to interpret the relationship(s) between the measures of central tendency (Rubin, 2013). The standard deviation value shows the degree of variability in the data (Rubin, 2013), or in the group's responses to a particular factor group or scale item. The standard deviation allows the researcher to interpret which scores fall within the data sets' normal distribution and if there are outliers to the sample (Rubin, 2013). Together, these descriptive statistics enable us to gain insight into this group of educators' feelings of efficacy, and the sources that contributed to those feelings, in a meaningful way.

Nonparametric Statistical Analyses

In addition to descriptive statistics, I also conducted nonparametric statistical analyses. Nonparametric tests can be used to examine relationships that occur between variables when they are not at the interval or ratio levels (Rubin, 2013). As my data was at the nominal, ordinal, or scale levels more traditional parametric tests (e.g., ANOVA, Pearson's *r*) would not be appropriate (Rubin, 2013). Additionally, I had a smaller sample size (n = 88), which can lead to difficulty identifying significant differences between groups when using parametric analyses (Lomax & Hahs-Vaughn, 2012). For my purposes, I was interested in examining relationships that occurred between demographic factors, levels of teacher self-efficacy, and sources of efficacy development in this group of educators of justice-involved juveniles. I used Kendall's Tau-b to test for correlations between two variables (e.g., demographics and levels of TSE, demographics and sources of efficacy, and TSE levels and sources of efficacy), and the degree to which the two variables tend to vary together. A positive correlation indicates that as one variable increases, the second variable tends to increase as well. With Kendall's Tau-b the scores are group mean rankings, with a positive correlation indicating the rankings of the two variables tend to move in the same direction. Negative correlations, indicate that as one variable increases in group mean rankings, the other variable tends to go down. Statistically significant correlation does not mean one variable causes a change in the other, but instead describes the amount the two variables occur in similar patterns, or directions, within the data.

I used the Kruskal-Wallis nonparametric one-way analyses of variances (ANOVA; Lomax & Hahs-Vaughn, 2012) to compare TSES and SOSI scores across the different demographic subgroups. This nonparametric test is suitable for categorical data, such as nominal or ordinal data, or when data does not follow the normal curve (Lomax & Hahs-Vaughn, 2012). I was interested in evaluating possible differences in self-efficacy beliefs (e.g., as measured by

TSES and SOSI) across demographic variables. Using the Kruskal-Wallis test allowed me to solely concentrate on the interactions of one demographic variable and all of its possible values at one time, while evaluating for possible differences (Lomax & Hahs-Vaugh, 2012) in self-efficacy beliefs across individual TSES and SOSI scores. For instance, using the Kruskal Wallis test, I was able to compare self-efficacy beliefs across different genders (e.g., female, male, other). Further the Kruskal-Wallis is robust to violations of assumptions. When running the Kruskal-Wallis, I used a Bonferroni correction to adjust the significance level of multiple comparisons to maintain an alpha level of .05 and reduce the likelihood if Type I Errors, or the possibility of saying there are differences in groups when there are not (Lomax & Hahs-Vaughn, 2012). As I was interested in comparing TSES and SOSI scores across different values of sixteen demographic variables, the Bonferroni correction allowed for multiple comparisons while maintaining the appropriate level of significance (Lomax & Hahs-Vaughn, 2012)

The Kruskal-Wallis test can be used as an alternative to the parametric one-factor ANOVA under nonnormality and, or when data on the dependent variable are ordinal. When the assumption of normality is not met, the Kruskal-Wallis test is more powerful than the parametric ANOVA (Lomax & Hahs-Vaughn, 2012). The Kruskal-Wallis test works by ranking the observations on the dependent measure from highest to lowest, regardless of group assignments (Lomax & Hahs-Vaughn, 2012), and regroups the mean rank for each category. This allows researchers to evaluate the difference in mean rank across groups. The test statistic produced is denoted by *H* (Lomax & Hahs-Vaughn, 2012).

I also ran the Friedman test, a nonparametric version of the repeated measures analysis of variance, to compare demographic traits with all three facets of TSE (Efficacy in Instructional Strategies, Efficacy in Classroom Management, and Efficacy in Student Engagement) at the

same time. The Friedman test was also used to compare differences in demographic traits with the four sources of efficacy as measured by the SOSI (mastery experiences, Vicarious learning, Verbal persuasion, and Emotional/Physiological State). The Friedman multivariate analysis of variance compares groups (e.g. demographic characteristics such as gender, race, etc.) on a set of dependent variables (e.g. TSES factorized families, SOSI factorized families) simultaneously, ensuring a more robust analysis as compared with individual analysis of variance. The repeated measures analysis of variance also controls the family error rate and can detect multivariate response patterns that are missed by single-response analysis of variance (Lomax & Hahs-Vaughn, 2012). Multiple variate analysis of the Friedman test allowed me to delve more deeply into mutual influences among these factorized families of scaled scores. The decision to utilize both Kruskal Wallis test and the Friedman test was based on the statistical purpose of each analysis. Kruskal Wallis tests can provide insight into specific demographic groups for each of the individual TSES and SOSI scores. The Friedman test captures the overall multivariate relationship among demographics and TSES factorized families (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement) and SOSI factorized families (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states). Together these two nonparametric tests can provide insight into differences in groups across teacher self-efficacy as measured by the TSES and SOSI.

Descriptive Statistical Results Teacher Self-Efficacy (TSES)

In this section I will examine the data's descriptive statistical results to identify levels of Teacher Self-Efficacy as measured by scores on the TSES. I will also examine the data's descriptive statistical results to examine sources of self-efficacy as measured by scores on the SOSI. I will follow these with a discussion of non-parametric analysis (e.g., Kruskal-Wallis test,

the Friedman test, and Kendall's Tau-b) of relationships between demographic characteristics and self-efficacy scored as measured by the TSES and the SOSI.

Following the demographic characteristic portion of the online survey, was the section of the survey that was comprised of the Teacher's Sense of Self-Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). In this section, participants were asked to report on their feelings of competency in certain teaching tasks (See Table 5 for a complete list of scale items). For each scale item, respondents were asked to make a self-evaluative judgement based on the following choices (with code values in parentheses): A Great Deal (5), Quite a Bit (4), Some Influence (3), Very Little (2), and Nothing (1). The following subsections summarizes the three factors associated with teaching self-efficacy as measured by the TSES.

Descriptive Statistical Results Efficacy in Classroom Management

The first TSES factorized family of variables is Efficacy in Classroom Management. Classroom Management, as described by Tschannen-Moran & Woolfolk Hoy (2001), includes strategies that are designed to encourage desirable student responses through praise encouragement, attention and rewards. A slightly more precise definition of classroom management is "the set of skills, practices, and strategies teachers use to maintain productive and prosocial behaviors that enable effective instruction in whole-class or small group settings" (Stevenson et al., 2020; p. 398). Therefore, classroom management is an important aspect of teaching. Further, there is evidence to suggest teachers who effectively manage their classrooms report higher levels of job satisfaction, are less likely to experience burnout, and have students who are more likely to make academic progress (Stevenson et al., 2020). This group of educators, as a whole, felt relatively confident in their classroom management abilities ($\bar{x}$ = 27.9036/40.0, SD = 4.60544, M = 28, Mo = 24). The variance, or spread of the data around the

mean, was 21.210, a moderate spread. This suggests the data points are not extremely close to the group mean, but they are not highly dispersed, suggesting a moderate level of variability within the dataset. The data were also slightly positively skewed (.264, SE = .264) with kurtosis statistic of -.062 (SE = .523) suggesting a relatively flat distribution with lighter tails compared to a normal distribution. Table 7 provides the descriptive statistical results for the TSES portion of survey responses related to Classroom Management.

Table 7

Descriptives Efficacy in Classroom Management

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.	Variance	Skewness		Kurtosis	
								Stat.	Std. Error	Stat.	Std. Error
3) How much can you do to control disruptive behavior in the classroom? (n= 88)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.40 M = 3.0 Mo = 3	.941	.886	-.205	.257	-.240	.508
	2 = Very Little	12	13.6%	15.9%							
	3 = Some Influence	33	37.5%	53.4%							
	4 = Quite a Bit	31	35.2%	88.6%							
	5 = A Great Deal	10	11.4%	100%							
5) To what extent can you make your expectations clear about student behavior? (n=87)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.49 M = 4.0 Mo = 4	.926	.854	-.432	.258	-.009	.511
	2 = Very Little	10	11.5%	13.8%							
	3 = Some Influence	28	32.2%	46.0%							
	4 = Quite a Bit	37	42.5%	88.5%							
	5 = A Great Deal	10	11.5%	100%							
8) How well can you establish routines to keep activities running smoothly? (n=86)	1 = Nothing	1	1.2%	1.2%	$\bar{x}$ = 3.50 M = 3.50 Mo = 3	.864	.747	-.168	.260	-.069	.514
	2 = Very Little	8	9.3%	10.5%							
	3 = Some Influence	34	39.5%	50.0%							
	4 = Quite a Bit	33	38.4%	88.4%							
	5 = A Great Deal	10	11.6%	100%							
13) How much can	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.47 M = 4.0	.896	.803	-.581	.257	.102	.508
	2 = Very Little	11	12.5%	14.8%							

you do to get students to follow classroom rules? (n=88)	3 = Some Influence	26	29.5%	44.3%	Mo = 4						
	4 = Quite a Bit	42	47.7%	92.0%							
	5 = A Great Deal	7	8.0%	100%							
15) How much can you do to calm a student who is disruptive or noisy? (n=85)	1 = Nothing	1	1.2%	1.2%	$\bar{x}$ = 3.52 M = 4.0 Mo = 4	.840	.705	-.242	.261	.106	.517
	2 = Very Little	7	8.2%	9.4%							
	3 = Some Influence	33	38.8%	48.2%							
	4 = Quite a Bit	35	41.2%	89.4%							
	5 = A Great Deal	9	10.6%	100%							
16) How well can you establish a classroom management system with each group of students? (n=86)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.52 M = 4.0 Mo = 3	.917	.841	-.305	.260	.106	.514
	2 = Very Little	7	8.1%	10.5%							
	3 = Some Influence	33	38.4%	48.8%							
	4 = Quite a Bit	32	37.2%	86.0%							
	5 = A Great Deal	12	14.0%	100%							
19) How well can you keep a few problem students from ruining an entire lesson? (n=87)	1 = Nothing	0	0%	0%	$\bar{x}$ = 3.48 M = 4.0 Mo = 4	.713	.508	-.430	.258	-.240	.511
	2 = Very Little	8	9.2%	9.2%							
	3 = Some Influence	32	36.8%	46.0%							
	4 = Quite a Bit	44	50.6%	96.6%							
	5 = A Great Deal	3	3.4%	100%							
21) How well can you respond to defiant students? (n=86)	1 = Nothing	4	4.7%	4.7%	$\bar{x}$ = 3.35 M = 3.0 Mo = 3	.967	.935	-.438	-.240	.071	.514
	2 = Very Little	10	11.6%	16.3%							
	3 = Some Influence	32	37.2%	53.5%							
	4 = Quite a Bit	32	37.2%	90.7%							
	5 = A Great Deal	8	9.3%	100%							
Total for Efficacy in Classroom Management		Valid N = 83			$\bar{x}$ = 27.903 M = 28.0 Mo = 24	4.6054	21.210	.264	.264	.062	.523

Scores in Classroom Management were somewhat homogenous, with a range of $\bar{x}$ 3.35 to $\bar{x}$ 3.52 for each scale item (out of 4.0). Teachers in this sample indicated they feel most efficacious about scale items 15 ($\bar{x}$ = 3.52, SD = .896, M = 4.0, Mo = 4) and 16 ($\bar{x}$ = 3.52, SD. = .917, M = 4.0, M = 4). Scale item 15 is *How much can you do to calm a student who is disruptive or noisy?* Most teachers in this sample (41.2%; n = 35) stated they felt they could do quite a bit (code value 4), while slightly fewer (38.8%; n = 33) felt they only had some influence (code value 3) in calming a disruptive student. Only one respondent (1.2%) felt there was nothing (code value 1) they could do in this situation, and seven (8.2%) more felt they could do very little (code value 2). Five (10.6%) respondents felt they could do a great deal (code value 5) to calm a disruptive student. Scale item 16 is *How well can you establish a classroom management system with each group of students?* Almost equal numbers of respondents stated they had some influence in differentiating classroom management for diverse groups of students (38.4%; n =33) and those who stated they could do quite a bit (37.2%; n = 32). About 10% of respondents felt they could do nothing (2.3%; n = 2) or could do very little (8.1%; n = 7) in managing different classroom populations. Twelve respondents reported being able to do a great deal (14%; n = 12) when creating and delivering management systems for diverse groups of learners.

This group of educators felt least efficacious in their ability to respond to defiant students (Scale Item 21: *How well can you respond to defiant students?*). Equal numbers of respondents reported feeling they had some influence in being able to respond to defiant students (37.2%; n = 32) and those who felt they had quite a bit of influence (37.2%; n = 32).

Descriptive Statistical Results Efficacy in Instructional Strategies

This sample of educators scored highest on the second factorized family in TSE as described by Tschannen-Moran & Woolfolk Hoy (2001). Efficacy in Instructional Strategies involves the ability to respond to the needs of different groups or individual students, while also promoting a variety of instructional activities and techniques to engage all learners (Tschannen-Moran & Woolfolk Hoy, 2001). See Table 8 for a table of frequencies and descriptive statistics for data regarding Efficacy in Instructional Strategies. Overall, this participant group feels relatively efficacious in addressing student needs through a variety of instructional techniques and strategies ($\bar{x}$ = 28.060, SD = 4.42, M = 28.0, Mo = 27, n = 83). The variance, or spread of the data around the mean, was 19.569, with a standard deviation of 4.472. This suggests a moderate spread of values around the mean (28.060). The data were slightly negatively skewed (-0.153, SE = .264), indicating a tail to the left of the mean. The kurtosis statistic of -.062 (SE = .523) suggesting a relatively flat distribution with lighter tails compared to a normal distribution.

The mean scores within this factorized family ranged from $\bar{x}$ = 3.66 to $\bar{x}$ = 3.41. The item with the highest mean score was Scale Item 7: *How well can you respond to difficult questions from your students*? Almost half of respondents (45.3%, n = 39) felt they could do quite a bit (code value four) in responding to difficult questions. About a third of respondents (33.7%, n = 29) stated they had some influence (code value 3) in this area. No respondents felt they could do nothing (code value 1) in responding to difficult questions (0%; n = 0), and only six (7.0%) reported they could do very little (code value 2). Twelve participants reported feeling highly efficacious on this item by reporting they had a great deal (code value 5) of influence (14.0%; n = 12).

Table 8

Descriptives Efficacy in Instructional Strategies

Scale Item	Scale Anchor	Freq.					Variance	Skewness	Kurtosis

			Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.		Stat.	Std. Error	Stat.	Std. Error
7) How well can you respond to difficult questions from your students? (n=86)	1 = Nothing	0	0%	0%	$\bar{x}$ = 3.66 M = 4.0 Mo = 4	.806	.650	-.134	.260	-.407	.514
	2 = Very Little	6	7.0%	7.0%							
	3 = Some Influence	29	33.7%	40.7%							
	4 = Quite a Bit	39	45.3%	86.0%							
	5 = A Great Deal	12	14.0%	100%							
10) How much can you gauge student comprehension of what you have taught? (n=88)	1 = Nothing	1	1.1%	1.1%	$\bar{x}$ = 3.41 M = 3.0 Mo = 4	.866	.750	-.256	.257	-.238	.508
	2 = Very Little	12	13.6%	14.8%							
	3 = Some Influence	32	36.4%	51.1%							
	4 = Quite a Bit	36	40.9%	92.0%							
	5 = A Great Deal	7	8.0%	100%							
11) To what extent can you craft good questions for your students? (n=88)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.47 M = 4.0 Mo = 4	.857	.734	-.508	.257	.417	.508
	2 = Very Little	8	9.1%	11.4%							
	3 = Some Influence	32	36.4%	47.7%							
	4 = Quite a Bit	39	44.3%	92.0%							
	5 = A Great Deal	7	8.0%	100%							
17) How much can you do to adjust your lessons to the proper level for individual students? (n=86)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.53 M = 4.0 Mo = 4	.877	.769	-.430	.260	.437	.514
	2 = Very Little	6	7.0%	9.3%							
	3 = Some Influence	32	37.2%	46.5%							
	4 = Quite a Bit	36	41.9%	88.4%							
	5 = A Great Deal	10	11.6%	100%							
18) How much can you use a variety of assessment strategies? (n=85)	1 = Nothing	0	0%	0%	$\bar{x}$ = 3.48 M = 3.0 Mo = 3	.811	.657	.127	.261	-.430	.517
	2 = Very Little	8	9.4%	9.4%							
	3 = Some Influence	37	43.5%	52.9%							
	4 = Quite a Bit	31	36.5%	89.4%							
	5 = A Great Deal	9	10.6%	100%							
20) To what extent can you provide an alternative	1 = Nothing	3	3.5%	3.5%	$\bar{x}$ = 3.48 M = 4.0 Mo = 4	.967	.935	-.453	.260	.055	.514
	2 = Very Little	9	10.5%	14.0%							
	3 = Some Influence	29	33.7%	47.7%							
	4 = Quite a Bit	34	39.5%	87.2%							

explanation or example when students are confused? (n=86)	5 = A Great Deal	11	12.8%	100%							
23) How well can you implement alternative strategies in your classroom? (n=86)	1 = Nothing	3	3.5%	3.5%	$\bar{x}$ = 3.47 M = 4.0 Mo = 4	.916	.840	-.505	.260	.423	.514
	2 = Very Little	7	8.1%	11.6%							
	3 = Some Influence	32	37.2%	48.8%							
	4 = Quite a Bit	35	40.7%	89.5%							
	5 = A Great Deal	9	10.5%	100%							
24) How well can you provide appropriate challenges for very capable students? (n=86)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.47 M =3.0 Mo = 3	.904	.816	-.285	.260	.119	.514
	2 = Very Little	8	9.3%	11.6%							
	3 = Some Influence	34	39.5%	51.2%							
	4 = Quite a Bit	32	37.2%	88.4%							
	5 = A Great Deal	10	11.6%	100%							
Total for Efficacy in Instructional Strategies		Valid N = 83			$\bar{x}$ = 28.060 M = 28.0 Mo = 27	4.4237	19.569	-.153	.264	.600	.523

Participants also scored comparatively high on Scale Item 17 *How much can you do to adjust your lessons to the proper level for individual students*? ($\bar{x}$ = 3.53, SD = .877, M 4.0, Mo = 4). On this item, about 40% of respondents (41.9%, n = 36) felt they could do quite a bit in adjusting lessons to address individual student needs, and slightly more than 10% (11.6%, n = 10) felt they could do a great deal. Less than 10% felt they could do nothing (2.3%, n = 2) or very little (7.0%, n = 6). About a third felt they had only some influence in being able to adjust lessons to meet individual needs (37.2%, n = 32).

The item with the lowest rating from this TSES factorized family, Efficacy in Instructional Strategies, was Scale Item 10 *How much can you gauge student comprehension of*

what you have taught? ($\bar{x}$ = 3.41, SD = .866, M 4.0, Mo = 4). Most of the percentages on Scale Item 10 were similar to those of the others, except there were far fewer respondents (8.0%; n = 7) who scored themselves at the highest level (code level 5 *A Great Deal*). Even though this item had the lowest of all the scores in this family ($\bar{x}$ = 3.47), almost half of the respondents (40.9%; n = 36) reported feeling that they could do quite a bit to gauge student comprehension. Slightly fewer (36.4%; n = 32) felt they had some influence in gauging student comprehension. Less than 15% of respondents scored themselves as having no skill in this area (nothing; 1.1%; n = 1) or having very little skill (13.6%; n = 12).

Overall, this group feels slightly less efficacious in the Student Engagement area of the TSES ($\bar{x}$ = 28 of 40). These eight scale items can be divided into two parts: teaching strategies (Scale Item 10, SI11, SI18, and SI23) and responses to students (SI7, SI17, SI20, SI24). This group of participants felt more efficacious in teaching strategies ($\bar{x}$ = 3.54) than they did in individualizing for different groups or individuals ($\bar{x}$ = 3.46).

Descriptive Statistical Results Efficacy in Student Engagement

This group of educators as a whole scored lowest on this family of Teacher Self-Efficacy ($\bar{x}$ = 27.74/40.0, SD = 4.47, M = 28.0, Mo = 27.0). The variance was 20.002 with a standard deviation of 4.47. This suggests a moderate spread of values around the mean. The data were slightly negatively skewed (-0.074, SE = .264), indicating a tail to the left of the mean. The kurtosis statistic of .580 (SE = .523) suggests a slightly more peaked distribution of data as compared with a normal distribution. Table 9 provides the descriptive statistical results for the TSES portion of survey responses related to Efficacy in Student Engagement. The group scored lowest on Scale Item 22 *How much can you do to assist families in helping their children do well in school?* ($\bar{x}$ = 3.25, SD = .991, M = 3.0, Mo = 3). Almost 20% of participants felt they could do

nothing (6.9%, n = 6) or could do very little (14.0%, n = 10) to assist families in helping children do well in school. Almost equal amounts of respondents felt they had some influence (37.9%, n = 33) or could do quite a bit (36.8%, n =32) to help families. Six (6.9%) of respondents felt highly efficacious on this item reporting they could do a great deal to assist families.

Table 9

Descriptives Efficacy in Student Engagement

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.	Variance	Skewness		Kurtosis	
								Stat.	Std. Error	Stat.	Std. Error
1) How much can you do to get through to the most difficult students? (n=88)	1 = Nothing	1	1.1%	1.1%	$\bar{x}$ = 3.36 M = 3.0 Mo =3	.819	.671	-.126	.257	.034	.508
	2 = Very Little	10	11.4%	12.5%							
	3 = Some Influence	39	44.3%	56.8%							
	4 = Quite a Bit	32	36.4%	93.2%							
	5 = A Great Deal	6	6.8%	100%							
2) How much can you do to help your students think critically? (n=88)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.41 M = 3.50 Mo =4	.839	.704	-.542	.257	.383	.508
	2 = Very Little	9	10.2%	12.5%							
	3 = Some Influence	33	37.5%	50.0%							
	4 = Quite a Bit	39	44.3%	94.3%							
	5 = A Great Deal	5	5.7%	100%							
4) How much can you do to motivate students who show low interest in school work? (n=87)	1 = Nothing	1	1.1%	1.1%	$\bar{x}$ = 3.55 M = 4.0 Mo = 3	.818	.669	-.170	.258	.241	.511
	2 = Very Little	5	5.7%	6.9%							
	3 = Some Influence	36	41.4%	48.3%							
	4 = Quite a Bit	35	40.2%	88.5%							
	5 = A Great Deal	10	11.5%	100%							
6) How much can you do to get	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.58 M = 4.0 Mo = 3	.874	.650	-.364	.260	.512	.514
	2 = Very Little	4	4.7%	7.0%							

students to believe they can do well in school work? (n=86)	3 = Some Influence	34	39.5%	46.5%							
	4 = Quite a Bit	34	39.5%	86.0%							
	5 = A Great Deal	12	14.0%	100%							
9) How much can you do to help your students value learning? (n=88)	1 = Nothing	1	1.1%	1.1%	$\bar{x}$ = 3.51 M = 4.0 Mo = 4	.844	.713	-.271	.257	.049	.508
	2 = Very Little	8	9.1%	10.2%							
	3 = Some Influence	33	37.5%	47.7%							
	4 = Quite a Bit	37	42.0%	89.8%							
	5 = A Great Deal	9	10.2%	100%							
12) How much can you do to foster student creativity? (n=86)	1 = Nothing	2	2.3%	2.3%	$\bar{x}$ = 3.53 M = 4.0 Mo = 3	.877	.769	-.323	.260	.420	.514
	2 = Very Little	5	5.8%	8.1%							
	3 = Some Influence	35	40.7%	48.8%							
	4 = Quite a Bit	33	38.4%	87.2%							
	5 = A Great Deal	11	12.8%	100%							
14) How much can you do to improve the understanding of a student who is failing? (n=86)	1 = Nothing	1	1.2%	1.2%	$\bar{x}$ = 3.49 M = 4.0 Mo = 4	.864	.747	-.579	.260	-.102	.514
	2 = Very Little	12	14.0%	15.1%							
	3 = Some Influence	23	26.7%	41.9%							
	4 = Quite a Bit	44	51.2%	93.0%							
	5 = A Great Deal	6	7.0%	100%							
22) How much can you do to assist families in helping their children do well in school? (n=87)	1 = Nothing	6	6.9%	6.9%	$\bar{x}$ = 3.25 M = 3.0 Mo = 3	.991	.982	-.532	.258	.064	.511
	2 = Very Little	10	11.5%	18.4%							
	3 = Some Influence	33	37.9%	56.3%							
	4 = Quite a Bit	32	36.8%	93.1%							
	5 = A Great Deal	6	6.9%	100%							
Total for Efficacy in Student Engagement		Valid N = 83			$\bar{x}$ = 27.735 M = 28.0 Mo = 27.0	4.47	20.002	-.074	.264	.580	.523

In contrast, the educators as a group scored highest on Scale Item 6 *How much can you do to get students to believe they can do well in school work?* ($\bar{x}$ = 3.58/4.0, SD = .874, M = 4.0, Mo = 3) and Item 4 *How much can you do to motivate students who show low interest in school work?* ($\bar{x}$ = 3.55/4.0, SD = .818, M = 4.0, Mo = 3). Respondents felt they were mostly proficient at giving students confidence in their own ability to succeed academically (Scale Item 6). Equal numbers felt they could influence these beliefs some (39.5%, n = 4) of quite a bit (39.5%, n = 4). Twelve respondents felt they could do a great deal to enhance these beliefs (14.0%, n = 12). Only 7% of respondents felt they could do nothing (2.3%, n = 2) or very little (4.7%, n = 4) to sway student beliefs on academic success. Respondents felt similarly efficacious in their ability to motivate students with low academic interest (Scale Item 4). Most respondents felt they could provide some influence on student motivation in academic success (41.4%, n = 36). Only slightly fewer reported feeling they could do quite a bit to motivate students (40.2%, n = 35). Ten educators in this group felt highly efficacious in their abilities to motivate students with low interest. Less than 7% of these respondents felt they could do nothing (1.1%, n = 1) or very little (5.7%, n = 5) to motivate students.

Summary of TSE Descriptive Statistics

I conducted descriptive analysis of the respondents' scores on the TSES. I used the constructs defined in the TSES (& Woolfolk Hoy, 2001) to measure the three aspects of efficacy (e.g. Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement). Efficacy in Classroom Management includes skills, practices, and strategies teachers use to maintain productive and prosocial behaviors which enables effective instruction. As a group, the survey participants felt relatively confident in their classroom

abilities with scores ranging from 3.35 to 3.52 for each scale item out of a possible 4.0. Of the eight scale items for Classroom Management, four relate to disruptive or "problem" students ($\bar{x}$ = 3.44) and four relate to classroom management in terms of procedures and routines ($\bar{x}$ = 3.50). This suggests that this population of educators feel more efficacious in terms of general management of the class versus being able to calm or control disruptive behaviors.

Efficacy in Instruction Strategies refers to one's ability to respond to needs of different groups or individual students through a variety of activities and techniques. Overall, this group feels slightly less efficacious in this area of the TSES ($\bar{x}$ = 28 of 40). These eight scale items can be divided into two parts: teaching strategies (Scale Item 10, SI11, SI18, and SI23) and responses to students (SI7, SI17, SI20, SI24). This group of participants felt more efficacious in teaching strategies ($\bar{x}$ = 3.54) than they did in individualizing for different groups or individuals ($\bar{x}$ = 3.46).

As a whole, this group of educators scored lowest on the third component of the TSES, Efficacy in Student Engagement ($\bar{x}$ = 27.74). This portion of TSE can be divided into two groups as well, four scale items referring to general encouragement and engagement (SI4, SI6, SI14, and SI22) ($\bar{x}$ =3.47), and four scale items referring to children struggling or failing (SI1, SI2, SI9, and SI12) ($\bar{x}$ = 3.45). This suggests this group of educators were more efficacious in general student engagement than with engaging and encouraging children at-risk of failure.

Descriptive Statistical Results Sources of Self-Efficacy Inventory (SOSI)

I used the Sources of Self-Efficacy Inventory (SOSI; Kieffer & Henson, 2000), an unpublished scale intended to measure the four sources of self-efficacy as posited by Bandura (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states). Further, the SOSI was created based on the model of teacher efficacy as presented by

Tschannen-Moran & Woolfolk Hoy (2001) and the four sources of self-efficacy as proposed by Bandura (1997), the two lines of theory I have based this research. Both mastery experience and vicarious experience have nine items, while 10 items are used for verbal persuasion, and seven items measure emotional/physiological states. Despite the deficits of the scales found in exploratory factor analysis (e.g., only portions of the subscales clustered together as expected) I chose to use the SOSI as no other scales were found that attempted to measure the four sources of self-efficacy as posited by Bandura (1997) as related to teacher self-efficacy, or more specifically for teacher self-efficacy of justice-involved juveniles. In the following sections, I will discuss the results of the descriptive analysis for this group of educators based on the factorized families of the SOSI (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states).

Descriptive Statistical Results Mastery Experiences

This group of educators, as a whole, scored second highest (74%) on this source of efficacy ($\bar{x}$ = 33.268/45.0, SD = 6.053, M = 28.0, Mo = 27.0). The variance was 36.643 with a standard deviation of 6.053. This suggests a moderate spread of values around the mean. The data were slightly negatively skewed (-1.213, SE = .266), indicating a tail to the left of the mean, or that values are concentrated on the right side. The kurtosis statistic of 2.207 (SE = .526) suggests a slightly more peaked distribution of data as compared with a normal distribution. Table 10 provides the descriptive statistical results for the mastery experience portion of survey responses on the SOSI. The group scored lowest on Scale Item 17 *I have made many mistakes when trying to teach children.* ($\bar{x}$ = 3.09, SD = 1.288, M = 4.0, Mo = 4). Almost 30% of participants felt making mistakes when teaching children were definitely not true of them (code value 1) (15.3%, n = 13) or were somewhat not true (code value 2) (17.6.%, n = 15). The

majority of participants reported making mistakes when teaching was neither true nor untrue of them (code value 3) (n = 20). Slightly more than 40% reported making mistakes when teaching was somewhat true of them (code value 4) (n = 25) or definitely true of them (code value 5) (n = 12).

Table 10

Descriptives Mastery Experiences

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.	Variance	Skewness		Kurtosis	
								Stat.	Std Error	Stat.	Std. Error
1) I have had many positive opportunities to teach. (n = 86)	1 = Definitely Not True of Me	5	5.8%	5.8%	$\bar{x}$ = 3.70 M = 4.0 Mo = 4	1.064	1.131	-1.106	.260	.691	.514
	2 = Somewhat Not True	9	10.5%	16.3%							
	3 = Neither True nor Untrue	8	9.3%	25.6%							
	4 = Somewhat True	49	57.0%	82.6%							
	5 = Definitely True of Me	15	17.4%	100%							
2) I remember clearly those times when I have taught groups well. (n= 86)	1 = Definitely Not True of Me	2	2.3%	2.3%	$\bar{x}$ = 3.86 M = 4.0 Mo = 4	.922	.851	-1.005	.260	.691	.514
	2 = Somewhat Not True	6	5.9%	9.3%							
	3 = Neither True nor Untrue	13	15.1%	24.4%							
	4 = Somewhat True	46	53.5%	77.9%							
	5 = Definitely True of Me	19	22.1%	100%							
5) I have developed many of my teaching skills by actually teaching. (n = 87)	1 = Definitely Not True of Me	6	6.9%	6.9%	$\bar{x}$ = 3.89 M = 4.0 Mo = 4	1.135	1.289	-1.184	.258	.857	.511
	2 = Somewhat Not True	5	5.7%	12.6%							
	3 = Neither True nor Untrue	10	11.5%	24.1%							
	4 = Somewhat True	38	43.7%	67.8%							
	5 = Definitely True of Me	28	32.2%	100%							
9) Often my attempts to teach children are not as successful	1 = Definitely Not True of Me	7	8.3%	8.3%	$\bar{x}$ = 3.19 M = 4.0 Mo = 4	1.135	1.289	-.335	.263	-.796	.520
	2 = Somewhat Not True	18	21.4%	29.8%							
	3 = Neither True nor Untrue	19	22.6%	52.4%							

as I would like. (n=84)	4 = Somewhat True	32	38.1%	90.5%							
	5 = Definitely True of Me	8	9.5%	100%							
13) I have learned a great deal from teaching in classrooms. (n = 84)	1 = Definitely Not True of Me	2	2.4%	2.4%	$\bar{x}$ = 4.0 M = 4.0 Mo = 5	1.109	1.229	-.978	.263	.027	.520
	2 = Somewhat Not True	10	11.9%	14.3%							
	3 = Neither True nor Untrue	9	10.7%	25.0%							
	4 = Somewhat True	28	33.3%	58.3%							
	5 = Definitely True of Me	35	41.7%	100%							
17) I have made many mistakes when trying to teach children. (n=85)	1 = Definitely Not True of Me	13	15.3%	15.3%	$\bar{x}$ = 3.09 M = 4.0 Mo = 4	1.288	1.658	-.214	.261	-1.032	.517
	2 = Somewhat Not True	15	17.6%	32.9%							
	3 = Neither True nor Untrue	20	23.5%	56.5%							
	4 = Somewhat True	25	29.4%	85.9%							
	5 = Definitely True of Me	12	14.1%	100%							
22) When I make instructional mistakes, I am able to learn from the experience. (n = 85)	1 = Definitely Not True of Me	3	3.5%	3.5%	$\bar{x}$ = 3.99 M = 4.0 Mo = 4	.982	.964	-1.212	.261	1.573	.517
	2 = Somewhat Not True	4	4.7%	8.2%							
	3 = Neither True nor Untrue	11	12.9%	21.2%							
	4 = Somewhat True	40	47.1%	68.2%							
	5 = Definitely True of Me	27	31.8%	100%							
26) I often wish that I had done things differently after teaching a lesson. (n = 85)	1 = Definitely Not True of Me	1	1.2%	1.2%	$\bar{x}$ = 3.45 M = 4.0 Mo = 4	.893	.798	-.299	.261	-.308	.517
	2 = Somewhat Not True	12	14.1%	15.3%							
	3 = Neither True nor Untrue	28	32.9%	48.2%							
	4 = Somewhat True	36	42.4%	90.6%							
	5 = Definitely True of Me	8	9.4%	100%							
32) There have been opportunities for me to teach well. (n = 87)	1 = Definitely Not True of Me	2	2.3%	2.3%	$\bar{x}$ = 4.00 M = 4.0 Mo = 4	.952	.907	-.992	.258	.985	.511
	2 = Somewhat Not True	4	4.6%	6.9%							
	3 = Neither True nor Untrue	15	17.2%	24.1%							
	4 = Somewhat True	37	42.5%	66.7%							

	5 = Definitely True of Me	29	33.3%	100%							
Total for Mastery Experience		Valid N = 82			$\bar{x}$ = 33.27 M = 34.0 Mo = 36	6.053	36.643	-1.213	.266	2.207	.526

Within the mastery experiences family of the SOSI, this group of educators of justice-involved juveniles scored highest on Scale Item 13 *I have learned a great deal from teaching in classrooms.* ($\bar{x}$ = 4.0/4.5, SD = .1.109, M = 4.0, Mo = 5) and Item 32 *There have been opportunities for me to teach well.* ($\bar{x}$ = 4.0/4.5, SD = .952, M = 4.0, Mo = 4). Respondents felt had learned a great deal, and thus developed self-efficacy, from experiences teaching in classrooms (Scale Items 13). Almost 75% of respondents reported this item was somewhat true of them (n = 28) or definitely true of them (n = 35). Only two respondents reported learning from teaching in classrooms was definitely not true of them (n = 2). About 20% of respondents felt learning from teaching in a classroom was neither true or untrue of them (n = 9) or somewhat not true of them (n = 10). On Scale Item 32, almost 75% of respondents reported having had opportunities to teach well were definitely true of them (n = 29) or somewhat true of them (n = 37). Only six participants reported having opportunities to teach well were definitely not true of them (n = 2) or somewhat not true of them (n = 4). Only 15 participants chose the median value, indicating this statement was neither true nor untrue of them.

Descriptive Statistical Results Vicarious Experiences

The third ranked source of efficacy for this group of educators was vicarious experiences (73%). The group results had a mean of 32.94 out of 45 with a standard deviation of 6.053 ($\bar{x}$ = 32.94/45.0, SD = 6.318, M = 34.5, Mo = 36). The variance was 39.912 with a skewness value of -1.064 (SE = .263) and kurtosis value of 1.388 (SE = 5.20). This suggests a moderate spread of values around the mean. The data were slightly negatively skewed (-1.064, SE = .520),

indicating a tail to the left of the mean, or that values are concentrated on the right side. The kurtosis statistic of 1.388 (SE = .520) suggests a slightly more peaked distribution of data as compared with a normal distribution. Table 11 provides the descriptive statistical results for the Vicarious experience portion of survey responses on the SOSI. The group scored lowest on Scale Item 27 *I have developed confidence in my own teaching by observing the mistakes that other teachers make.* ($\bar{x}$ = 3.28, SD = 1.198, M = 4.0, Mo = 4). Almost 25% of participants reported having developed little confidence in their own teaching self-efficacy by watching the mistakes that other teachers made. Eleven respondents indicated this was definitely not true of them (n = 11) and ten reported it was somewhat not true of them (n = 10). Almost 25% reported the statement was neither true nor untrue of them. Most reported learning from watching others make mistakes was somewhat true of them (n = 36). Only ten reported it was definitely true of them (n = 10).

Table 11

Descriptives Vicarious Experiences

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.	Variance	Skewness		Kurtosis	
								Stat.	Std. Error	Stat.	Std. Error
3) I have learned about how to be a teacher by watching other skillful teachers. (n = 86)	1 = Definitely Not True of Me	3	3.5%	3.5%	$\bar{x}$ = 3.73 M = 4.0 Mo = 4	1.011	1.022	-.836	.260	.406	.514
	2 = Somewhat Not True	8	9.3%	12.8%							
	3 = Neither True nor Untrue	16	18.6%	31.4%							
	4 = Somewhat True	41	47.7%	79.1%							
	5 = Definitely True of Me	18	20.9%	100%							
7) Watching other teachers make mistakes	1 = Definitely Not True of Me	3	3.4%	3.4%	$\bar{x}$ = 3.74 M = 4.0 Mo = 4	.958	.918	-1.148	.258	1.124	.511
	2 = Somewhat Not True	9	10.3%	13.8%							

has taught me how to be a more effective teacher. (n = 87)	3 = Neither True nor Untrue	9	10.3%	24.1%							
	4 = Somewhat True	53	60.9%	85.1%							
	5 = Definitely True of Me	13	14.9%	100%							
11) I have had meaningful opportunities to observe teachers in action. (n = 85)	1 = Definitely Not True of Me	4	4.7%	4.7%	$\bar{x}$ = 3.61 M = 4.0 Mo = 4	1.025	1.050	-.854	.261	.351	.517
	2 = Somewhat Not True	9	10.6%	15.3%							
	3 = Neither True nor Untrue	16	18.8%	34.1%							
	4 = Somewhat True	43	50.6%	84.7%							
	5 = Definitely True of Me	13	15.3%	100%							
15) My classroom observations are valuable to me. (n=85)	1 = Definitely Not True of Me	3	3.5	3.5%	$\bar{x}$ = 3.71 M = 4.0 Mo = 4	1.010	1.020	-.868	.261	.404	.517
	2 = Somewhat Not True	9	10.6%	14.1%							
	3 = Neither True nor Untrue	14	16.5%	30.6%							
	4 = Somewhat True	43	50.6%	81.2%							
	5 = Definitely True of Me	16	18.8%	100%							
18) Educational textbooks and journal articles have helpful information on how to teach. (n=87)	1 = Definitely Not True of Me	4	4.6%	4.6%	$\bar{x}$ = 3.76 M = 4.0 Mo = 4	1.011	1.022	-1.083	.258	.985	.511
	2 = Somewhat Not True	7	8.0%	12.6%							
	3 = Neither True nor Untrue	12	13.8%	26.4%							
	4 = Somewhat True	47	54.0%	80.5%							
	5 = Definitely True of Me	17	19.5%	100%							
20) I believe I can teach as well as the teachers portrayed in popular movies.	1 = Definitely Not True of Me	6	7.1%	7.1%	$\bar{x}$ = 3.51 M = 4.0 Mo = 4	1.109	1.229	-.686	.261	-.096	.517
	2 = Somewhat Not True	9	10.6%	17.6%							
	3 = Neither True nor Untrue	20	23.5%	41.2%							

(n = 85)	4 = Somewhat True	36	42.4%	83.5%							
	5 = Definitely True of Me	14	16.5%	100%							
27) I have developed confidence in my own teaching by observing the mistakes that other teachers make. (n = 87)	1 = Definitely Not True of Me	11	12.6%	12.6%	$\bar{x}$ = 3.28 M = 4.0 Mo = 4	1.198	1.435	-.595	.258	-.563	.511
	2 = Somewhat Not True	10	11.5%	24.1%							
	3 = Neither True nor Untrue	20	23.0%	47.1%							
	4 = Somewhat True	36	41.4%	88.5%							
	5 = Definitely True of Me	10	11.5%	100%							
30) When I see other teachers do poorly, I am able to learn how to teach more effectively. (n = 86)	1 = Definitely Not True of Me	6	7.0%	7.0%	$\bar{x}$ = 3.42 M = 4.0 Mo = 4	1.079	1.164	-.792	.260	-.186	.514
	2 = Somewhat Not True	13	15.1%	22.1%							
	3 = Neither True nor Untrue	14	16.3%	38.4%							
	4 = Somewhat True	45	52.3%	90.7%							
	5 = Definitely True of Me	8	9.3%	100%							
34) I am able to improve my own instruction by noticing the errors that others make.	1 = Definitely Not True of Me	2	2.3%	2.3%	$\bar{x}$ = 3.94 M = 4.0 Mo = 4	.894	.799	-1.185	.258	1.878	.511
	2 = Somewhat Not True	5	5.7%	8.0%							
	3 = Neither True nor Untrue	10	11.5%	19.5%							
	4 = Somewhat True	49	56.3%	75.9%							
	5 = Definitely True of Me	21	24.1%	100%							
Total for Vicarious Experience		Valid N = 84			$\bar{x}$ = 32.94 M = 34.5 Mo = 36	6.318	39.912	-1.064	.263	1.388	.520

Within the vicarious experiences family of the SOSI, this group of educators of justice-involved juveniles scored highest on Scale Item 34 *I am able to improve my own instruction by noticing the errors that others make.* ($\bar{x}$ = 3.94/4.5, SD = .894, M = 4.0, Mo = 4). Respondents

felt they could learn from noticing the mistakes others make with about 75% reporting this item was somewhat true of them (n = 49) or definitely true of them (n = 21). Only two respondents reported learning from noticing mistakes of others was definitely not true of them (n = 2). About 15% of respondents felt this scale item was neither true or untrue of them (n = 10) or somewhat not true of them (n = 5). This group of educators also scored relatively high on Item 18 *Educational textbooks and journal articles have helpful information on how to teach.* ($\bar{x}$ = 3.76/4.5, SD = 1.011, M = 4.0, Mo = 4). Around 12% reported this was definitely not true of them (n = 4) or somewhat not true of them (n = 7). Only 12 participants chose the median value, indicating this statement was neither true nor untrue of them. Most respondents reported having gained teaching efficacy through educational textbooks or articles with about 50% stating this statement was somewhat true of them (n = 47). About 20% reported definitely having learned important information on learning to teach (n = 17).

Descriptive Statistical Results Verbal Persuasion

This group of educators scored highest (75%) on verbal persuasion sources of efficacy ($\bar{x}$ = 37.602/50.0, SD = 6.602, M = 39.0, Mo = 40.0). The variance was 43.828 with a standard deviation of 6.602. This suggests a moderate spread of values around the mean. The data were slightly negatively skewed (-1.243, SE = .264), indicating a tail to the left of the mean, or that values are concentrated on the right side. The kurtosis statistic of 2.607 (SE = .523) suggests a slightly more peaked distribution of data as compared with a normal distribution. Table 12 provides the descriptive statistical results for the Verbal persuasion portion of survey responses on the SOSI. The group scored lowest on Scale Item 24 *I often compare my own abilities to other teachers.* ($\bar{x}$ = 3.33, SD = 1.271, M = 4.0, Mo = 4). Almost 30% of participants felt comparing their own abilities to other teachers were definitely not true of them (5.7%, n = 5) or were

somewhat not true (20.7.%, n = 18). About 20% of participants reported making mistakes when teaching was neither true nor untrue of them (21.8%, n = 19). Slightly more than half of respondent reported comparing their abilities to other teachers was somewhat true of them 37.9%, n = 33) or definitely true of them (13.8%, n = 12).

Table 12

Descriptives Verbal Persuasion

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Standard Deviation	Variance	Skewness		Kurtosis	
								Stat.	Std. Error	Stat.	Std. Error
4) Listening to others talk about teaching gives me useful information on teaching. (n = 87)	1 = Definitely Not True of Me	2	2.3%	2.3%	$\bar{x}$ = 3.75 M = 4 Mo = 4	9.30	.866	-.800	.258	.626	.511
	2 = Somewhat Not True	7	8.0%	10.3%							
	3 = Neither True nor Untrue	18	20.7%	31.0%							
	4 = Somewhat True	44	50.6%	81.6%							
	5 = Definitely True of Me	16	18.4%	100%							
8) I learn a great deal about how to actually teach effectively from the suggestions of others. (n=87)	1 = Definitely Not True of Me	3	3.4%	3.4%	$\bar{x}$ = 3.84 M = 4 Mo = 4	.950	.902	-1.158	.258	1.568	.511
	2 = Somewhat Not True	5	5.7%	9.2%							
	3 = Neither True nor Untrue	12	13.8%	23%							
	4 = Somewhat True	47	54.0%	77.0%							
	5 = Definitely True of Me	20	23.0%	100%							
12) The feedback I	1 = Definitely	5	6.0%	6.0%	$\bar{x}$ = 3.81	1.070	1.144	-1.121	.263	1.470	.520

receive from others helps me teach better. (n = 84)	Not True of Me				M = 4.0 Mo = 4						
	2 = Somewhat Not True	5	6.0%	11.9%							
	3 = Neither True nor Untrue	12	14.3%	26.2%							
	4 = Somewhat True	41	48.8%	75.0%							
	5 = Definitely True of Me	21	25.0%	100%							
16) When people I respect tell me I will be a good teacher, I tend to believe them. (n = 84)	1 = Definitely Not True of Me	4	4.8%	4.8%	$\bar{x}$ = 3.77 M = 4.0 Mo = 4	.974	.948	-1.131	.263	1.470	.520
	2 = Somewhat Not True	4	4.8%	9.5%							
	3 = Neither True nor Untrue	15	17.9%	27.4%							
	4 = Somewhat True	45	53.6%	81.0%							
	5 = Definitely True of Me	16	19.0%	100%							
21) Feedback from other teachers is valuable to me. (n=85)	1 = Definitely Not True of Me	3	3.5%	3.5%	$\bar{x}$ = 3.78 M = 4.0 Mo = 4	1.084	1.176	-.859	.261	.043	.517
	2 = Somewhat Not True	11	12.9%	16.5%							
	3 = Neither True nor Untrue	10	11.8%	28.2%							
	4 = Somewhat True	39	45.9%	74.1%							
	5 = Definitely True of Me	22	25.9%	100%							
24) I often compare my	1 = Definitely	5	5.7%	5.7%	$\bar{x}$ = 3.33	1.128	1.271	-.345	.258	-.759	.511

own abilities to other teachers. (n = 87)	Not True of Me				M = 4.0 Mo = 4						
	2 = Somewhat Not True	18	20.7%	26.4%							
	3 = Neither True nor Untrue	19	21.8%	48.3%							
	4 = Somewhat True	33	37.9%	86.2%							
	5 = Definitely True of Me	12	13.8%	100%							
25) My coursework has helped me develop effective teaching strategies and skills. (n = 85)	1 = Definitely Not True of Me	1	1.2%	1.2%	$\bar{x}$ = 3.79 M = 4.0 Mo = 4	.977	.955	-.657	.261	-.140	.517
	2 = Somewhat Not True	10	11.8%	12.9%							
	3 = Neither True nor Untrue	15	17.6%	30.6%							
	4 = Somewhat True	39	45.9%	76.5%							
	5 = Definitely True of Me	20	23.5%	100%							
28) I tend to believe others when they tell me I will be a good teacher. (n = 86)	1 = Definitely Not True of Me	5	5.8%	5.8%	$\bar{x}$ = 3.78 M = 4.0 Mo = 4	1.011	1.021	-1.220	.260	1.504	.514
	2 = Somewhat Not True	4	4.7%	10.5%							
	3 = Neither True nor Untrue	13	15.1%	25.6%							
	4 = Somewhat True	47	54.7%	80.2%							
	5 = Definitely True of Me	17	19.8%	100%							
31) The things I learn	1 = Definitely	2	2.3%	2.3%	$\bar{x}$ = 3.90	.940	.885	-1.077	.258	1.178	.511

in coursework help me be an effective teacher. (n = 87)	Not True of Me				M = 4.0 Mo = 4						
	2 = Somewhat Not True	7	8.0%	10.3%							
	3 = Neither True nor Untrue	10	11.5%	21.8%							
	4 = Somewhat True	47	54.0%	75.9%							
	5 = Definitely True of Me	21	24.1%	100%							
35) I often get important feedback from my professors about my teaching ability. (n =86)	1 = Definitely Not True of Me	3	3.5%	3.5%	$\bar{x}$ = 3.65 M = 4.0 Mo = 4	1.049	1.100	-.694	.260	-.088	.514
	2 = Somewhat Not True	11	12.8%	16.3%							
	3 = Neither True nor Untrue	16	18.6%	34.9%							
	4 = Somewhat True	39	45.3%	80.2%							
	5 = Definitely True of Me	17	19.8%	100%							
Total for Verbal Persuasion		Valid N = 83			$\bar{x}$ = 37.602 M = 39.0 Mo = 40	6.6202	43.828	-1.243	.264	2.607	.523

Within the verbal persuasion family of the SOSI, this group of educators of justice-involved juveniles scored highest on Scale Item 31 *The things I learn in coursework help me be an effective teacher.* ($\bar{x}$ = 3.9/4.5, SD = .940, M = 4.0, Mo = 4) and to a lesser extent, Item 8 *I learn a great deal about how to actually teach effectively from the suggestions of others.* ($\bar{x}$ = 3.84/5.0, SD = .950, M = 4.0, Mo = 4). Almost 80% of respondents felt they had developed self-efficacy from participating in formal coursework, with 47 indicating this was somewhat true of them (54.0%, n = 47), and 21 reporting it was definitely true of them (24.1%, n = 21). Only two

respondents reported learning from coursework was definitely not true of them (2.3%, n = 2). About 20% of respondents felt learning from teaching in a classroom was neither true or untrue of them (11.5%, n = 10) or somewhat not true of them (8.0%, n = 7). On Scale Item 8, slightly more than 75% of respondents reported having had opportunities to teach well were definitely true of them (23.0%, n = 20) or somewhat true of them (54.0%, n = 47). Only three participants indicted this statement was definitely not true of them (3.4%, n = 3). Slightly less than 20% reported this item was somewhat not true of them (5.7%, n = 5) or was neither true nor untrue of them (13.8%, n = 12).

Descriptive Statistical Results Emotional/Physiological States

This group of educators scored highest (75%) on emotional/physiological states as a source of efficacy ($\bar{x}$ = 22.726/35.0, SD = 4.7220, M = 23.0, Mo = 25.0). The variance was 22.298 with a standard deviation of 4.7220. This suggests a moderate spread of values around the mean. The data were slightly negatively skewed (-.258, SE = .258), indicating that values are concentrated on the right side of the mean. The kurtosis statistic of .663 (SE = .520) suggests a slightly more peaked distribution of data as compared with a normal distribution. Table 13 provides the descriptive statistical results for the emotional/physiological states portion of survey responses on the SOSI. The group scored lowest on Scale Item 19 *My fears of making mistakes affect my ability to teach.* ($\bar{x}$ = 2.70, SD = 1.277, M = 3.0, Mo = 4). Almost 40% of participants felt fears of making mistakes affecting their ability to teacher children were definitely not true of them (24.1%, n = 21) or were somewhat not true (21.8%, n = 19). About 20% of participants indicated these fears affecting teaching ability was neither true nor untrue of them (19.5%, n = 17). Slightly more than 30% reported fears of making mistakes when teaching affecting their

teaching ability was somewhat true of them (28.7%, n = 25) or definitely true of them (5/.7%, n = 5).

Table 13

Descriptives Emotional/Physiological States

Scale Item	Scale Anchor	Freq.	Valid Percent	Cumul. Percent	Measures of Central Tendency	Stand. Dev.	Variance	Skewness		Kurtosis	
								Stat.	Std. Error	Stat.	Std. Error
6) When I say the wrong things to a class, I become anxious. (n = 87)	1 = Definitely Not True of Me	11	12.6%	12.6%	$\bar{x}$ = 3.00 M = 3.0 Mo = 4	1.181	1.395	-.173	.258	-.956	.511
	2 = Somewhat Not True	20	23.0%	35.6%							
	3 = Neither True nor Untrue	21	24.1%	59.8%							
	4 = Somewhat True	28	32.2%	92.0%							
	5 = Definitely True of Me	7	8.0%	100%							
10) The idea of being in a classroom as a teacher makes me nervous. (n=83)	1 = Definitely Not True of Me	23	27.1%	27.1%	$\bar{x}$ = 2.73 M = 3.0 Mo = 4	1.304	1.700	-.173	.261	-1.553	.517
	2 = Somewhat Not True	15	17.6%	44.7%							
	3 = Neither True nor Untrue	11	12.9%	57.6%							
	4 = Somewhat True	34	40.0%	97.6%							
	5 = Definitely True of Me	2	2.4%	100%							
14) I get excited when I do something right to help a child learn. (n = 86)	1 = Definitely Not True of Me	1	1.2%	1.2%	$\bar{x}$ = 3.95 M = 4.0 Mo = 4	.919	.845	-.837	.260	.517	.514
	2 = Somewhat Not True	6	7.0%	8.1%							
	3 = Neither True nor Untrue	14	16.3%	24.4%							
	4 = Somewhat True	40	46.5%	70.9%							
	5 = Definitely True of Me	25	29.1%	100%							
19) My fears of making mistakes affect my ability to teach. (n=87)	1 = Definitely Not True of Me	21	24.1%	24.1%	$\bar{x}$ = 2.70 M = 3.0 Mo = 4	1.277	1.631	.035	.258	-1.272	.511
	2 = Somewhat Not True	19	21.8%	46.0%							
	3 = Neither True nor Untrue	17	19.5%	65.5%							

	4 = Somewhat True	25	28.7%	94.3%							
	5 = Definitely True of Me	5	5.7%	100%							
23) I have felt my heart beat faster or harder when I have done well with a lesson. (n=86)	1 = Definitely Not True of Me	9	10.5%	10.5%	$\bar{x}$ = 3.06 M = 3.0 Mo = 4	1.162	1.350	-.208	.260	-.953	.514
	2 = Somewhat Not True	21	24.4%	34.9%							
	3 = Neither True nor Untrue	19	22.1%	57.0%							
	4 = Somewhat True	30	34.9%	91.9%							
	5 = Definitely True of Me	7	8.1%	100%							
29) Teaching well gives me a positive sense of personal success. (n = 88)	1 = Definitely Not True of Me	3	3.4%	3.4%	$\bar{x}$ = 3.95 M = 4.0 Mo = 4	1.027	1.055	-1.014	.257	.762	.508
	2 = Somewhat Not True	5	5.7%	9.1%							
	3 = Neither True nor Untrue	15	17.0%	26.1%							
	4 = Somewhat True	35	39.8%	65.9%							
	5 = Definitely True of Me	30	34.1%	100%							
33) When I have made mistakes teaching, I have felt my heart beat faster and harder. (n=87)	1 = Definitely Not True of Me	8	9.2%	9.2%	$\bar{x}$ = 3.11 M = 3.0 Mo = 4	1.176	1.382	-.140	.258	-.918	.511
	2 = Somewhat Not True	21	24.1%	33.3%							
	3 = Neither True nor Untrue	21	24.1%	57.5%							
	4 = Somewhat True	27	31.0%	88.5%							
	5 = Definitely True of Me	10	11.5%	100%							
Total for Emotional/Physiological States		Valid N = 84			$\bar{x}$ = 22.726 M = 23.0 Mo = 25	4.7220	22.298	-.258	.263	.663	.520

Within the emotional/physiological states family of the SOSI, this group of educators of justice-involved juveniles scored highest on Scale Item 14 *I get excited when I do something right to help a child learn* ($\bar{x}$ = 3.95/4.0, SD = .929, M = 4.0, Mo = 4) and Item 29 *Teaching*

well gives me a positive sense of personal success ($\bar{x}$ = 3.95/4.0, SD = .1.0277, M = 4.0, Mo = 4). About 75% of respondents felt they had developed self-efficacy through positive feelings of success with 30 indicating the statement was definitely true of them (34.1%, n = 30) or was somewhat true of them (39.8%, n = 35). Less than 10% of respondents felt efficacy developed through feelings of success were definitely not true of them (3.4%, n = 3) or somewhat not true of them (5.7%, n = 5). Slightly more than 15% of survey participants indicated this statement was neither true nor untrue of them (17.0%, n = 15).

Summary of SOSI Descriptive Statistics

Although the SOSI is an unpublished scale, it was designed to measure the four sources of self-efficacy as posited by Bandura (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states), and is based in the Tschannen-Moran & Woolfolk Hoy framework containing the three components of TSE (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement). Therefore, I chose to use this unpublished instrument to measure the four sources of efficacy, despite its limitations.

As a group, these educators scored highest on verbal persuasion sources of efficacy ($\bar{x}$ = 37.602/50.0). I roughly divided this source of efficacy into two parts: verbal affirmations (SI8, SI12, SI16, SI21, SI28, SI35) and social learning (SI4, SI24, SI25, SI31). The group appear to have slightly higher mean scores on verbal affirmations ($\bar{x}$ = 3.77) than social learning experiences ($\bar{x}$ = 3.692). Interestingly both the highest scored scale item (SI31, $\bar{x}$ = 3.90) and the lowest scored scale item (SI24, $\bar{x}$ = 3.33) fell within the social learning experiences category. SI31 refers to gaining efficacy through coursework, while SI24 refers to learning through comparing one's own abilities to other teachers.

This group of participants scored second highest on mastery experiences ($\bar{x}$ = 33.268/45.0) as a source of efficacy. I separated these scale items into two parts: positive experiences and negative experiences. Positive experiences ($\bar{x}$ = 3.89) consisted of scale items 1, 2, 5, 13, and 32. Negative experiences ($\bar{x}$ = 3.43) consisted of scale items 9, 17, 22, and 26. This suggests this group of educators feel more efficacious based on positive mastery experiences versus negative experiences in which they see themselves as having made mistakes.

This group of educators of justice-involved juveniles ranked vicarious experiences ($\bar{x}$ = 32.94/45.0) as the third most influential source of efficacy. I chose to divide this source into two groups of scale items consisting of positive (SI3, SI11, SI15, SI18, SI20) and negative experiences (SI7, SI27, SI30, SI34). These educators scored slightly higher on positive vicarious experiences ($\bar{x}$ = 3.66) in which they learned from watching another teacher succeed. They scored very slightly lower on negative experiences ($\bar{x}$ = 3.60).

These teachers scored lowest on emotional/physiological states ($\bar{x}$ = 22.726/28.0) as a source of efficacy. I again split the scale items into positive (SI14, SI23, SI29) and negative (SI6, SI10, SI19, SI33) experiences. These educators scored much higher on positive ($\bar{x}$ = 3.65) than negative emotional/physiological states ($\bar{x}$ = 2.89).

Nonparametric Correlation: TSE and Demographic Characteristics

I chose to conduct correlation analysis to further explore aspects of teacher self-efficacy and demographic variables. Kendall's Tau-b is a nonparametric correlation coefficient used to test for correlations between two factors (Lomax & Hahs-Vaughn, 2012). The main difference between Kendall's Tau and Kendall's Tau-b is that the latter adjusts for tied values, which can provide a more accurate measure of association (citation). In the case of this study, I am looking for a mutual relationship between two variables (e.g., demographics and levels of TSE,

demographics and sources of efficacy, and TSE levels and sources of efficacy), and the degree to which the two variables tend to vary together. Statistically significant correlation does not mean one variable causes a change in the other, but instead describes the amount the two variables occur in similar patterns within the data.

Correlation TSE and Gender

Kendall's Tau-b for gender and total TSE indicates a statistically significant (p = .049) correlation coefficient of .178 which is a weak correlation between gender and total TSE. The positive coefficient implies that as gender changes there is a slight tendency for total TSE scores to change in a similar direction, but it is not substantial. See Appendix B.1. for a scatterplot of the correlation between gender and total TSE.

Correlation TSE and Age

Kendall's Tau-b coefficient between age and total TSE (0.269) is statistically significant (p =.003), which indicates a moderately strong positive association between age and total TSE. This indicates that as age increases, total teacher self-efficacy scores also tend to increase. See Appendix B.2. for a scatterplot depicting the relationship between age and total TSE.

Correlation TSE and Race

Kendall's Tau-b coefficient between race and total TSE (-.057) indicates a weak negative correlation. However, it is not significant at the .05 threshold (p =.532). See Appendix B.3. for a scatterplot depicting the relationship between respondents' race and total TSE.

Correlation TSE and Education Level

Kendall's Tau-b coefficient between total TSE and education level (.281) suggests a moderately positive correlation, which is significant at the .05 level (p = <.001). This indicates as

education level increases so too does total TSE, albeit to a moderate extent. See Appendix B.4. for a scatterplot of total TSE and education level.

Correlation TSE and Discipline Area

Kendall's Tau-b indicates a weak negative correlation (-.109) between discipline area and total TSE (p = .189). This would indicate that there is no meaningful association between total TSE and discipline areas. See Appendix B.5. for a scatterplot depicting the relationship between total TSE and discipline area.

Correlation TSE and Years of Teaching Experience

Kendall's Tau-b indicates a moderate positive correlation (.283) between the number of years teaching experience and total TSE. The association is statistically significant (p =.001). This suggests that as years of teaching experience increase, so do total TSE scores to a moderate extent. See Appendix B.6. for a scatterplot depicting the relationship between years of experience and total TSE.

Correlation TSE and Years of Experience in Special Setting

Kendall's Tau-b indicates a weak positive correlation (.283) between the number of years teaching experience in a special setting and total TSE, however it is not statistically significant. This indicates an extremely minimal relation between the two variables. See Appendix B.7. for a scatterplot depicting the relationship between years of experience in a special setting and total TSE.

Correlation TSE and Teaching Assignment/Placement

Kendall's Tau-b indicates a very weak positive correlation (.076) between teaching assignment and total TSE; however, it is not statistically significant (p = .375). This indicates an

extremely minimal relation between the two variables. See Appendix B.8. for a scatterplot depicting the relationship between teaching setting and total TSE.

Correlation TSE and Age of Respondents' Students

Kendall's Tau-b indicates a moderately strong positive correlation (.330) between student age and total TSE, which is statistically significant ($p = < .001$). This indicates a meaningful association between student age and total TSE. See Appendix B.9. for a scatterplot depicting the relationship between student age and total TSE.

Correlation TSE and Gender of Respondents' Students

Kendall's Tau-b indicates a weak positive correlation (.182) between student gender and total TSE, which is statistically significant ($p = .045$). This indicates that student gender is meaningfully associated with total TSE, albeit weakly. See Figure B.10. for a scatterplot depicting the relationship between total TSE and student gender.

Correlation TSE and Content Area

Kendall's Tau-b indicates a moderately strong positive correlation (.341) between content area and total TSE, which is statistically significant ($p = < .001$). This indicates that content area is meaningful associated with total TSE. See Appendix B.11. for a scatterplot depicting the relationship between content area and total TSE.

Correlation TSE and Subject Area

Kendall's Tau-b indicates a very weak positive correlation (.047) between teaching subject area and total TSE; however, it is not statistically significant ($p = .573$). This indicates an extremely minimal relation between subject area and total TSE. See Appendix B.12. for a scatterplot depicting the relationship between total TSE and subject area.

Correlation TSE and Caseload Size

Kendall's Tau-b indicates a very weak positive correlation (.069) between teacher's caseload and total TSE; however, it is not statistically significant (p = .423). This indicates an extremely minimal relation between caseload size and total TSE. See Appendix B.13. for a scatterplot depicting the relationship between total TSE and caseload size.

Correlation TSE and Instructional Setting

Kendall's Tau-b indicates a very weak negative correlation (-.089) between instructional setting and total TSE; however, it is not statistically significant (p = .305). This indicates an extremely minimal relation between case setting and total TSE. See Appendix B.14. for a scatterplot depicting the relationship between instructional setting and total TSE.

Correlation TSE and Class Size

Kendall's Tau-b indicates a very weak positive correlation (.053) between class size and total TSE; however, it is not statistically significant (p = .535). This indicates an extremely minimal relation between class size and total TSE. See Appendix B.15. for a scatterplot depicting the relationship between class size and total TSE.

Correlation TSE and Setting-Specific Training

Kendall's Tau-b indicates a very weak negative correlation (-.0733) between kinds of professional development and total TSE; however, it is not statistically significant (p = .394). This indicates an extremely minimal relation between different kinds of professional development and total TSE. See Appendix B.16. for a scatterplot depicting the relationship between total TSE and kinds of professional development.

Nonparametric Correlation: TSE and Four Sources of Efficacy

Correlation TSE and Mastery Experiences

Kendall's Tau-b indicates a moderately strong positive correlation (.445) between mastery experience and total TSE (n = 77), which is statistically significant ($p = < .001$). This indicates that as mastery experiences increase so too do total TSE scores. See Appendix B.17. for a scatterplot depicting the relationship between mastery experiences and total TSE.

Correlation TSE and Vicarious Experiences

Kendall's Tau-b indicates a moderately strong positive correlation (.483) between vicarious experiences and total TSE, which is statistically significant ($p = < .001$). This indicates that as vicarious experiences increase so too do total TSE scores. See Appendix B.18. for a scatterplot depicting the relationship between vicarious experience and total TSE.

Correlation TSE and Verbal Persuasion

Kendall's Tau-b indicates a moderately strong positive correlation (.347) between verbal persuasion and total TSE, which is statistically significant ($p = < .001$). This indicates that as verbal persuasion experiences increase so too do total TSE scores. See Appendix B.19. for a scatterplot depicting the relationship between verbal persuasion and total TSE.

Correlation TSE and Emotional/Physiological States

Kendall's Tau-b indicates a moderately strong positive correlation (.150) between emotional/physiological states and total TSE, but it is not statistically significant ($p = .059$). See Appendix B.20. for a scatterplot depicting the relationship between emotional/physiological states.

Summary of Nonparametric Correlation Analysis

Kendall's Tau-b results between gender and TSE (as measured by total TSES scores) suggested a weak correlation, suggesting a correlation between gender changes and a tendency for TSE scores to also consistently change in the same direction. There was a moderately strong positive association with age and TSE scores, suggesting that as respondents' age increased so too did their TSE scores. There was also a moderately positive correlation between TSE and education level, which suggests as respondents' education level increased, their TSE scores also increased. There was a moderate positive correlation between number of years of teaching experience and TSE, but no significant differences between TSE and years of teaching experience specific to a juvenile justice setting. Kendall's Tau-b suggests a moderately strong positive correlation between the age groups taught by respondents and TSE scores. The gender of respondents' students was weakly related to total TSE. There was also suggestion that the content area taught by respondents was meaningfully correlated with TSE scores, but subject area was not significantly related to TSE.

There were no significant correlations found between TSE and race or TSE and discipline area. No significant relations were found with TSE and teaching or class setting. There were no significant correlations found between TSE and caseload size or TSE and class size. There were also no significant correlations between types of professional development and TSE.

I also ran Kendall's Tau-b to explore correlations between TSE and the four sources of mastery as measured by the SOSI. There was a moderately strong positive association between mastery experiences and TSE, suggesting that as mastery experience scores increase so too do TSE scores. There were also moderately strong positive correlations between TSE and vicarious experiences and between TSE and verbal persuasion, again suggesting as scores on these sources

of efficacy increase, total TSE scores also tend to increase. There were no significant correlations found between emotional/physiological states and TSE.

Nonparametric Analysis of Variance

TSE and Demographic Characteristics

I conducted the Kruskal Wallis nonparametric one-way analysis of variance to compare demographic characteristics across Total TSE, and the three factor families (Self-Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement (as measured by the TSES). This nonparametric test is suitable for data such as mine (containing categorical data and/or consisting of non-normality) I was interested in evaluating possible differences in self-efficacy beliefs (e.g., as measured by TSES and SOSI) across demographic variables. Using the Kruskal-Wallis test allowed me to solely concentrate on the interactions of one demographic variable and all of its possible values at one time, while evaluating for possible differences in self-efficacy beliefs across TSES and SOSI scores. The Kruskal-Wallis test works by ranking the observations on the dependent measure from highest to lowest, regardless of group assignments (Lomax & Hahs-Vaughn, 2012), and regroups the mean rank for each category. This allows researchers to evaluate the difference in mean rank across groups.

TSE and Gender

The Kruskal-Wallis test for Total TSE and gender indicated a significant difference (p = .001) between group rank means at the alpha level of < 0.05. The mean rank value (H = 13.194, df = 2) suggests that there are differences in mean ranks across gender groups. The pairwise comparison with Bonferroni correction indicated a nonsignificant difference (p = 1.00) in mean

ranks between those respondents identifying as male, and those identifying as other gender. There was also no significant difference (p = .054) between those identifying as Other gender and those identifying as female (H =21.688, SE = 9.179). The data showed a significant difference (p = .002) in mean rank TSE scores between males and females (H =-18.663, SE = 5.507), suggesting respondents identifying as female had higher rank means than respondents who identified as male.

TSE and Age

The Kruskal-Wallis test for Total TSE and age indicated a significant difference (p = .021) between group rank means at the alpha level of < 0.05. The mean rank value (H =9.712, df = 3) suggests that there are differences in mean ranks across age groups. The pairwise comparison with Bonferroni correction indicated nonsignificant differences (p = 1.00) in mean ranks between those respondents reporting their age as 21-30 and those aged 31-40 (H =-8.013, SE=5.984). There were significant differences (p = .029) between group mean ranks of respondents reporting ages 21-30 and those identifying as 51-60 years of age (H = -24.524, SE=8.700). There was no significant difference (p = .468) between those respondents aged 21-30 and 51-60. There were also no significant (p = .222) differences between those aged 31-40 and those 41-50 (H =-16.511, SE=7.916), nor those 31-40 and respondents aged 51-60 (H =-1.315, p =1.00, SE=16.363). There were no significant differences (p =1.00) between ages 41-50 and those aged 51-60 (H = -5.00, SE= 17.539).

TSE and Race

There were few variations in race of respondents. Most of the respondents (65) were white, six were Black, eight were American Indian or Alaska Native, and one was Native Hawaiian or Other Pacific Islander. There were no respondents who reported being Asian. The

Kruskal-Wallis test for total TSE and race indicated there were no significant differences found between mean group rankings (H =1.997, df = 3, p = .573). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between American Indian or Alaska Native and white participants (H =-1.928, SE=8.700, p =1.00), American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander (H =-7.813, SE=24.629, p =1.00), American Indian or Alaska Native and Black respondents (H =-15.313, SE=12.541, p =1.00) those respondents reporting their age as 21-30 and those aged 31-40 (H =-8.013, SE=5.984). There were no significant differences between white and Native Hawaiian or Other Pacific Islander (H =5.885, SE=23.399, p =1.00) or white and Black respondents (H =-15.313, SE=12.541, p =1.00). There were also no significant differences between respondents identifying as Native Hawaiian or Other Pacific Islander and Black respondents (H =7.500, SE=25.081, p =1.00).

TSE and Education Level

The Kruskal-Wallis test for total TSE and education level (e.g., HS/HS equivalence, some college, associate degree, technical training, bachelor's degree, master's degree and doctorate) indicated there were significant differences found between mean group rankings (H =18.582, df = 6, p = .005). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all levels of education except those with some college and those having a master's degree (H = -31.105, SE=8.717, p = .008).

TSE and Discipline Area

The Kruskal-Wallis Test for total TSE and discipline area indicated a non-significant difference (p = .360) between group mean rank (H =9.879, df = 9). This suggests that despite

apparent numeric differences in mean total TSE scores across mean rankings of discipline area groups, none were statistically significant.

TSE and Years of Teaching Experience

The Kruskal-Wallis Test for total TSE and years of teaching experience indicated a significant difference (p = .012) between group mean rankings (H =12.949, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all levels of education except those respondents with 1-3 years teaching experience and those with 4-10 years of teaching experience (H =-17.328, SE=5.947, p = .036).

TSE and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for total TSE and years of teaching in a special setting showed a nonsignificant difference (p = .530) between group mean rankings (H =3.167, df = 4). This suggests that despite apparent numeric differences in mean total TSE scores across mean rankings of discipline area groups, none were statistically significant.

TSE and Teaching Assignment/Placement

The Kruskal-Wallis Test for total TSE and teaching assignment (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a significant difference (p = .028) between group mean rankings (H =10.892, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all teaching settings except those respondents reporting working at a juvenile minimum security and those reporting working at other facilities (H = -17.328, SE=5.947, p = .036). This suggests that educators working in minimum security ranked about 17 points lower than those teaching at an other facility based on the mean rank difference.

TSE and Age of Respondents' Students

The Kruskal-Wallis Test for total TSE and the age of respondents' students indicated a significant difference (p = .004) between group mean rankings (H =17.395, df = 5). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators teaching 10–11-year-old students and those teaching 12-17 year old students (H = -18.845, SE=5.794, p = .017). This suggests educators teaching students 10-11 years of age were ranked about 19 points lower than those teaching 12–17-year-old students based on the mean rank difference.

TSE and Gender of Respondents' Students

The Kruskal-Wallis Test for total TSE and the gender of respondents' students indicated a nonsignificant difference (p = .129) between group mean rankings (H =4.103, df = 2). This suggests that despite apparent numeric differences in total TSE scores across mean rankings of student gender groups, none were statistically significant.

TSE and Content Area

The Kruskal-Wallis Test for total TSE and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a significant difference (p = .006) between group mean rankings (H =24.776, df = 10). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators teaching who taught both academics and vocational/transition skills and those who taught only vocational/transition skills. (H = -45.246, SE=11.702, p = .006). This suggests educators who taught both academic content

and vocational/transition skills were ranked about 45 points lower than those teaching only vocational/transition skills based on the mean rank difference.

TSE and Subject Area

The Kruskal-Wallis Test for total TSE and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a significant difference (p = .008) between group mean rankings (H =17.391, df = 6). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators who taught science and those who taught social studies/government/geography (H = -31.014, SE=10.146, p = .047). This suggests educators who taught science were ranked about 31 points lower than those teaching social studies/government/geography based on the mean rank difference.

TSE and Caseload Size

The Kruskal-Wallis Test for total TSE and respondents' caseload indicated a nonsignificant difference (p = .852) between group mean rankings (H = .790, df = 3). This suggests that despite apparent numeric differences in total TSE scores across mean rankings of caseload size groups, none were statistically significant.

TSE and Instructional Setting

The Kruskal-Wallis Test for total TSE and the gender of respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference (p = .051) between group mean rankings (H =9.427, df = 4). This suggests that despite apparent numeric differences in total TSE scores across mean rankings of instructional setting groups, none were statistically significant.

TSE and Class Size

The Kruskal-Wallis Test for total TSE and respondents' class size indicated a nonsignificant difference (p = .624) between group mean rankings (H =2.615, df = 4). This suggests that despite apparent numeric differences in total TSE scores across mean rankings of class size groups, none were statistically significant.

TSE and Setting-Specific Training

I grouped all those people who reported receiving training from multiple sources into one group "multiple" (e.g., university and employment (n = 2), university and on own (n = 2), employment and on own (n = 1), and other (n =1). I also included a group of respondents who reported they had received no professional development related to working with justice involved juveniles. The Kruskal-Wallis Test for total TSE and the type of professional development specific to students involved in the juvenile justice system the respondent had participated. students indicated a nonsignificant difference (p = .258) between group mean rankings (H =8.929, df = 7). This suggests that despite apparent numeric differences in total TSE scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: TSE and Demographic Characteristics

I conducted the Kruskal-Wallis nonparametric one-way analysis of variance to compare demographic characteristics across TSE (as measured by total TSES). The Kruskal-Wallis indicated significant differences in group mean rankings based on gender, with females having higher group mean rankings than males or those who identified as other genders. This suggests in this group of educators, females had slightly higher TSE based on mean group rankings. There were also significant differences in TSE scores across age groupings. The analysis suggests

respondents aged 21-30 scored significantly lower than respondents 51-60 years of age, based on group mean rankings. There were significant differences in education level with respondents reporting having some college having lower group mean rankings than those having a master's degree. There were also significant differences in years of teaching experience and TSE. The group mean rankings of respondents with 1-3 years of teaching experience were lower than rankings for respondents with 4-10 years of teaching experience. There were also differences in TSE and student age, which suggested that educators teaching students 10-11 years of age were ranked lower than those teaching 12–17-year-old students based on the group mean rank difference. Additionally, educators who reported teaching academics and vocational/transition skills scored significantly higher on group mean rankings than educators who taught only vocational/transition skills. The Kruskal-Wallis test for TSE and the respondents' subject area indicated teachers who taught science had lower group mean rankings than educators of social studies/government/geography, while there were no significant differences found between any of the other subject areas.

There were no significant findings for the nonparametric one-way analysis for TSE and race, TSE and discipline area, TSE and years of experience in a special setting, TSE and teaching setting, TSE and student gender, TSE and case size, TSE and class setting, TSE and class size, or TSE and types of professional development the respondents had participated in.

Efficacy in Classroom Management and Demographic Characteristics

Efficacy in Classroom Management and Gender

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' gender indicated a significant difference ($p = .021$) between group mean rankings ($H = 4.103$, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in

mean ranks between either male and other or female and other. There were significant differences between male and female respondents (H = -14.371, SE=5.591, p = .030). This suggests male educators who responded to the survey questionnaire were ranked about 14 points lower than female educators based on the mean rank difference.

Efficacy in Classroom Management and Age

The Kruskal-Wallis test for Efficacy in Classroom Management and age indicated a significant difference (p = .031) between group rank means at the alpha level of < 0.05. The mean rank value (H =8.876, df = 3) suggests that there are differences in mean ranks across age groups, however, the pairwise comparison with Bonferroni correction indicated no significant differences in mean ranks between age groups. This suggests that despite apparent numeric differences in Efficacy in Classroom Management scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Classroom Management and Race

The Kruskal-Wallis test for Efficacy in Classroom Management and race indicated there were no significant differences found between mean group rankings (H =1.791, df = 3, p = .617). This suggests that despite apparent numeric differences in Efficacy in Classroom Management scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Classroom Management and Education Level

The Kruskal-Wallis test for Efficacy in Classroom Management and education level (e.g., HS/HS equivalence, some college, associate's degree, technical training, bachelor's degree, master's degree and doctorate) indicated there were significant differences found between mean group rankings (H =20.308, df = 6, p = .002). The pairwise comparison with Bonferroni

correction indicated nonsignificant differences in mean ranks between all levels of education except those respondents with some college and those having a master's degree (H =-35.125, SE=8.776, p = .001). This suggests that educators reporting having some college ranked about 35 points lower than those reporting having a master's degree based on the mean rank difference.

Efficacy in Classroom Management and Discipline Area

The Kruskal-Wallis Test for Efficacy in Classroom Management and discipline area indicated a non-significant difference (p = .275) between group mean rank (H =11.003, df = 9). This suggests that despite apparent numeric differences in mean scores across mean rankings of discipline area groups, none were statistically significant.

Efficacy in Classroom Management and Years of Teaching Experience

The Kruskal-Wallis Test for Efficacy in Classroom Management and years of teaching experience indicated a significant difference (p = .006) between group mean rankings (H =14.297, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all levels of education except those respondents with 1-3 years teaching experience and those with 4-10 years of teaching experience (H = -19.392, SE=6.011, p = .012). This suggests that educators with 1-3 years of teaching experience ranked about 19 points lower than those reporting having 4-10 years of experience based on the mean rank difference.

Efficacy in Classroom Management and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for Efficacy in Classroom Management and years of teaching in a special setting showed a nonsignificant difference (p = .470) between group mean rankings (H =3.550, df = 4). This suggests that despite apparent numeric differences in mean rankings across

years of experience teaching in a special setting discipline area groups, none were statistically significant.

Efficacy in Classroom Management and Teaching Assignment/Placement

The Kruskal-Wallis Test for Efficacy in Classroom Management and teaching assignment (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference (p = .057) between group mean rankings (H =9.148, df = 4). This suggests that despite apparent numeric differences in mean rankings across teaching assignments, none were statistically significant.

Efficacy in Classroom Management and Age of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Classroom Management and the age of respondents' students indicated a significant difference (p = .005) between group mean rankings (H =16.918, df = 5). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators teaching 10–11-year-old students and those who reported teaching All ages of juveniles (ages 10-18+) (H = -52.633, SE=17.551, p = .049). This suggests educators teaching students 10-11 years of age were ranked about 53 points lower than those teaching All ages of juveniles based on the mean rank difference.

Efficacy in Classroom Management and Gender of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Classroom Management and the gender of respondents' students indicated a significant difference (p = .004) between group mean rankings (H =11.032, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators teaching who taught only

male students and those who taught both genders of students (H =-24.331, SE=7.331, p = .003). This suggests educators who taught only male students were ranked about 24 points lower than those teaching both genders based on the mean rank difference.

Efficacy in Classroom Management and Content Area

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a significant difference (p = .013) between group mean rankings (H =22.488, df = 10). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators teaching who taught only vocational/transition skills and those who taught both academics and vocational/transition skills (H = -42.104, SE=11.678, p = .017). This suggests educators who taught only vocational/transition skills were ranked about 42 points lower than those teaching both academic content and vocational/transition skills based on the mean rank difference.

Efficacy in Classroom Management and Subject Area

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' teaching subject area(e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a significant difference (p = <.001) between group mean rankings (H =23.767, df = 6). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators who taught science and those who taught ELA, and between educators of science and those who taught social studies/government/geography (H =31.233, SE=8.209, p = .003). This suggests educators who

taught science were ranked about 31 points higher than those teaching ELA based on the mean rank difference. Teachers of science scored significantly lower on Efficacy in Classroom Management than teachers reporting teaching all (H = -35.083, SE=9.811, p = .007) and also lower than those teaching social studies/government/geography (H = -36.008, SE=10.032, p = .007) based on mean rank differences. This suggests that educators who taught science scored about 35 points lower than those teaching All subjects and about 36 points lower than those teaching social studies/government/geography based on the mean rank difference.

Efficacy in Classroom Management and Caseload Size

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' caseload indicated a nonsignificant difference (p = .525) between group mean rankings (H =2.237, df = 3). This suggests that despite apparent numeric differences in Efficacy of Classroom Management scores across mean rankings of caseload size groups, none were statistically significant.

Efficacy in Classroom Management and Instructional Setting

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a significant difference (p = .024) between group mean rankings (H =11.257, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all group setting rankings. This suggests that despite apparent numeric differences in Efficacy in Classroom Management scores across mean rankings of instructional setting groups, none were statistically significant.

Efficacy in Classroom Management and Class Size

The Kruskal-Wallis Test for Efficacy in Classroom Management and respondents' class size indicated a nonsignificant difference (p = .671) between group mean rankings (H =2.354, df = 4). This suggests that despite apparent numeric differences in Efficacy in Classroom Management scores across mean rankings of class size groups, none were statistically significant.

Efficacy in Classroom Management and Setting-Specific Training

The Kruskal-Wallis Test for Efficacy in Classroom Management and the type of professional development specific to students involved in the juvenile justice system the respondent had participated. students indicated a nonsignificant difference (p =.321) between group mean rankings (H =8.131, df = 7). This suggests that despite apparent numeric differences in Efficacy in Classroom Management scores across mean rankings of professional development groupings, none were statistically significant.

Summary Efficacy in Classroom Management and Demographic Characteristics

I also ran the Kruskal-Wallis test on the three constructs within Teacher Self-Efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001) The first of these is Efficacy in Classroom Management. Within this construct, the analysis indicated significant differences in Classroom Management scores across gender groupings. Females had higher classroom management scores than either males, or those of other gender based on group mean rankings. There were also significant differences in Classroom Management scores across age groupings. The analysis suggests respondents aged 21-30 scored significantly lower than respondents 51-60 years of age, based on group mean rankings. There were significant differences in education level with respondents reporting having some college having lower group mean rankings than those having a master's degree. There were also significant differences in years of teaching experience and

TSE. The group mean rankings of respondents with 1-3 years of teaching experience were lower than rankings for respondents with 4-10 years of teaching experience. There were also differences in classroom management and student age, which suggested that educators teaching students 10-11 years of age were ranked lower than those teaching All age groupings of juvenile students based on the group mean rank difference. Additionally, educators who reported teaching academics and vocational/transition skills scored significantly higher on group mean rankings than educators who taught only vocational/transition skills. The Kruskal-Wallis test for classroom management and the respondents' subject area indicated teachers who taught science had higher group mean rankings in this area of TSE in comparison to ELA teachers. In contrast, science teachers scored lower in classroom management than educators of social studies/government/geography and those who reported teaching multiple subjects. The Kruskal-Wallis test for Efficacy in Classroom Management and student gender showed a significant difference between educators who taught only male students and those who taught both genders. Based on group mean rankings, educators who taught male only students scored lower than educators who taught both genders.

There were no significant findings for the nonparametric one-way analysis for Efficacy in Classroom Management and race, Efficacy in Classroom Management and discipline area, classroom management and years of experience in a special setting, classroom management and teaching setting, classroom management and case size, classroom management and class setting, classroom management and class size, or classroom management and types of professional development the respondents had participated in.

Efficacy in Instructional Strategies and Demographic Characteristics

Efficacy in Instructional Strategies and Gender

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' gender indicated a significant difference (p = .010) between group mean rankings (H = 9.171, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between either male and other or female and other. There were significant differences (p = .011) between male and female respondents (H = -16.152, SE=5.585, p = .011). This suggests male educators were ranked about 16 points lower than female educators based on the mean rank difference of Efficacy in Instructional Strategies scores.

Efficacy in Instructional Strategies and Age

The Kruskal-Wallis test for Efficacy in Instructional Strategies and age indicated a nonsignificant difference (p =.053) between group rank means at the alpha level of < 0.05. The mean rank value (H = 7.677, df = 3) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Instructional Strategies and Race

The Kruskal-Wallis test for Efficacy in Instructional Strategies and race indicated there were no significant differences found between mean group rankings (H = .038, df = 3, p = .998). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Instructional Strategies and Education Level

The Kruskal-Wallis test for Efficacy in Instructional Strategies and education level (e.g., HS/HS equivalence, some college, associate's degree, technical training, bachelor's degree, master's degree and doctorate) indicated there were significant differences found between mean group rankings (H = 19.471, df = 6, p = .003). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all levels of education except those respondents with some college and those having a master's degree (H = -27.531, SE=8.553, p = .003). This suggests that educators reporting having some college ranked about 35 points lower on Efficacy in Instructional Strategies than those reporting having a master's degree based on the mean rank difference.

Efficacy in Instructional Strategies and Discipline Area

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and discipline area indicated a non-significant difference (p = .505) between group mean rank (H = 8.291, df = 9). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies across mean rankings of discipline area groups, none were statistically significant.

Efficacy in Instructional Strategies and Years of Teaching Experience

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and years of teaching experience indicated a nonsignificant difference (p = .078) between group mean rankings (H = 8.414, df = 4). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies across mean rankings of years of teaching experience groups, none were statistically significant.

Efficacy in Instructional Strategies and Years Teaching in Special Setting

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and years of teaching in a special setting showed a nonsignificant difference (p = .542) between group mean rankings (H = .3095, df = 4). This suggests that despite apparent numeric differences in mean rankings across years of experience teaching in a special setting groups, none were statistically significant.

Efficacy in Instructional Strategies and Teaching Assignment/Placement

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and teaching setting (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a significant difference (p = .011) between group mean rankings (H = 13.155, df = 4). This suggests that despite apparent numeric differences in mean rankings across teaching settings, none were statistically significant. The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all settings except educators at juvenile maximum security and other facilities (H = -44.550, SE 14.204, p = .017). This suggests educators teaching in juvenile maximum-security facilities were ranked about 45 points lower than those teaching in "other" facilities based on the mean rank difference.

Efficacy in Instructional Strategies and Age of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and the age of respondents' students indicated a significant difference (p = .012) between group mean rankings (H = 14.607, df = 5). However, the pairwise comparison with Bonferroni correction indicated no significant differences in mean ranks between educators at any age levels of juveniles. This suggests that despite apparent numeric differences in mean rankings across Efficacy in Instructional Strategies and student age, none were statistically significant.

Efficacy in Instructional Strategies and Gender of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and the gender of respondents' students indicated a nonsignificant difference (p = .180) between group mean rankings (H = 3.428, df = 2). This suggests that despite apparent numeric differences in mean rankings across Efficacy in Instructional Strategies and student gender, none were statistically significant.

Efficacy in Instructional Strategies and Content Area

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a significant difference (p = .022) between group mean rankings (H = 20.805, df = 10). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all but educators who taught only vocational/transition skills and those who taught both academics and vocational/transition skills (H = -40.299, SE=11.66, p = .030). This suggests educators who taught only vocational/transition skills were ranked about 41 points lower than those teaching both academic content and vocational/transition skills based on the mean rank difference.

Efficacy in Instructional Strategies and Subject Area

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a significant difference (p = .027) between group mean rankings

(H = 14.283, df = 6). However, the pairwise comparison with Bonferroni correction indicated no significant differences in mean ranks between educators of any subjects. This suggests that despite apparent numeric differences in mean rankings across Efficacy in Instructional Strategies and the subject area of educators, none were statistically significant.

Efficacy in Instructional Strategies and Caseload Size

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' caseload indicated a nonsignificant difference (p = .999) between group mean rankings (H = .029, df = 3). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies scores across mean rankings of caseload size groups, none were statistically significant.

Efficacy in Instructional Strategies and Instructional Setting

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference (p = .051) between group mean rankings (H = 9.455, df = 4). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies across mean rankings of instructional setting groups, none were statistically significant.

Efficacy in Instructional Strategies and Class Size

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and respondents' class size indicated a nonsignificant difference (p = .353) between group mean rankings (H = 4.412, df = 4). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies scores across mean rankings of class size groups, none were statistically significant.

Efficacy in Instructional Strategies and Setting-Specific Training

The Kruskal-Wallis Test for Efficacy in Instructional Strategies and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference ($p = .235$) between group mean rankings ($H = 9.249$, df = 7). This suggests that despite apparent numeric differences in Efficacy in Instructional Strategies scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: Efficacy in Instructional Strategies and Demographic Characteristics

I ran the Kruskal-Wallis test on the three constructs within TSE (Tschannen-Moran & Woolfolk-Hoy, 2001) The second TSE construct is Efficacy in Instructional Strategies. Within this construct, the analysis indicated significant differences in scores across gender groupings, with females having higher classroom instructional strategies scores than either males, or those of other gender based on group mean rankings. There were significant differences in education level with respondents reporting having some college having lower group mean rankings than those having a master's degree. Additionally, educators who reported teaching academics and vocational/transition skills scored significantly higher on group mean rankings than educators who taught only vocational/transition skills.

There were no significant findings for the nonparametric one-way analysis in Efficacy in Instructional Strategies scores across age groupings, Efficacy in Instructional Strategies and race, Efficacy in Instructional Strategies and Discipline Area, Instructional Strategies and years of teaching experience, Efficacy in Instructional Strategies and years of experience in a special setting, Efficacy in Instructional Strategies and teaching setting, Efficacy in Instructional

Strategies and student age, Efficacy in Instructional Strategies and subject area, Efficacy in Instructional Strategies and student gender, Efficacy in Instructional Strategies and case size, Efficacy in Instructional Strategies and class setting, Efficacy in Instructional Strategies and class size, or Efficacy in Instructional Strategies and types of professional development the respondents had participated in.

Efficacy in Student Engagement and Demographic Characteristics

Efficacy in Student Engagement and Gender

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' gender indicated a significant difference (p = .002) between group mean rankings (H = 2.921, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between either male and other or female and other. There were significant differences (p =.002) between male and female respondents (H = -19.105, SE=5.600, p = .002). This suggests male educators who responded to the survey questionnaire were ranked about 19 points lower on Efficacy in Student Engagement than female educators based on the mean rank difference.

Efficacy in Student Engagement and Age

The Kruskal-Wallis test for Efficacy in Student Engagement scores and age indicated a nonsignificant difference (p =.157) between group rank means at the alpha level of < 0.05. The mean rank value (H = 5.215, df = 3) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Student Engagement and Race

The Kruskal-Wallis test for Efficacy in Student Engagement and race indicated there were no significant differences found between mean group rankings (H = 6.345, df = 3, p = .096). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of age groupings, none were statistically significant.

Efficacy in Student Engagement and Education Level

The Kruskal-Wallis test for Efficacy in Student Engagement and education level (e.g., HS/HS equivalence, some college, associate's degree, technical training, bachelor's degree, master's degree and doctorate) indicated no significant differences found between mean group rankings (H = 11.392, df = 6, p = .077). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of education levels, none were statistically significant.

Efficacy in Student Engagement and Discipline Area

The Kruskal-Wallis Test for Efficacy in Student Engagement and discipline area indicated a non-significant difference (p = .434) between group mean rank (H = 9.031, df = 9). This suggests that despite apparent numeric differences in mean Efficacy in Student Engagement scores across mean rankings of discipline area groups, none were statistically significant.

Efficacy in Student Engagement and Years of Teaching Experience

The Kruskal-Wallis Test for Efficacy in Student Engagement and years of teaching experience indicated a nonsignificant difference (p = .068) between group mean rankings (H = 8.746, df = 4). This suggests that despite apparent numeric differences in Efficacy in Student

Engagement scores across mean rankings of teaching experience groupings, none were statistically significant.

Efficacy in Student Engagement and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for Efficacy in Student Engagement and years of teaching in a special setting showed a nonsignificant difference ($p = .856$) between group mean rankings ($H = 1.333$, df = 4). This suggests that despite apparent numeric differences in mean rankings across years of experience teaching in a special setting groups, none were statistically significant.

Efficacy in Student Engagement and Teaching Assignment/Placement

The Kruskal-Wallis Test for Efficacy in Student Engagement and teaching assignment (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference ($p = .103$) between group mean rankings ($H = 7.706$, df = 4). This suggests that despite apparent numeric differences in mean rankings across teaching assignments, none were statistically significant.

Efficacy in Student Engagement and Age of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Student Engagement and the age of respondents' students indicated a significant difference ($p = .036$) between group mean rankings ($H = 11.913$, df = 5). However, the pairwise comparison with Bonferroni correction indicated no significant differences in mean ranks between educators teaching any age group of juveniles. This suggests that despite apparent numeric differences in mean rankings across student age level groupings, none were statistically significant based on the mean rank difference.

Efficacy in Student Engagement and Gender of Respondents' Students

The Kruskal-Wallis Test for Efficacy in Student Engagement and the gender of respondents' students indicated a nonsignificant difference ($p = .386$) between group mean rankings ($H = 1.901$, df = 2). This suggests that despite apparent numeric differences in mean rankings across student engagement and student gender, none were statistically significant.

Efficacy in Student Engagement and Content Area

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a nonsignificant difference ($p = .060$) between group mean rankings ($H = 17.7398$, df = 10). This suggests that despite apparent numeric differences in mean rankings across content areas, none were statistically significant.

Efficacy in Student Engagement and Subject Area

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a nonsignificant difference ($p = .059$) between group mean rankings ($H = 12.131$, df = 6). This suggests that despite apparent numeric differences in mean rankings across teaching settings, none were statistically significant.

Efficacy in Student Engagement and Caseload Size

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' caseload indicated a nonsignificant difference ($p = .219$) between group mean rankings ($H = 4.425$, df = 3). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of caseload size groups, none were statistically significant.

Efficacy in Student Engagement and Instructional Setting

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference (p = .087) between group mean rankings (H = 8.131, df = 4). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of instructional setting groups, none were statistically significant.

Efficacy in Student Engagement and Class Size

The Kruskal-Wallis Test for Efficacy in Student Engagement and respondents' class size indicated a nonsignificant difference (p = .778) between group mean rankings (H = 1.772, df = 4). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of class size groups, none were statistically significant.

Efficacy in Student Engagement and Setting-Specific Training

The Kruskal-Wallis Test for Efficacy in Student Engagement and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference (p = .250) between group mean rankings (H = 9.043, df = 7). This suggests that despite apparent numeric differences in Efficacy in Student Engagement scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: Efficacy in Student Engagement and Demographic Characteristics

I ran the Kruskal-Wallis test on the third TSE construct, Efficacy in Student Engagement, and demographic characteristics. Within this construct, there were no significant differences

found between demographic groupings except for gender. The analysis indicated females had higher student engagement scores than either males, or those of other gender based on group mean rankings.

Mastery Experiences and Demographic Characteristics

I ran the Kruskal-Wallis test on the four sources of self-efficacy, as measured by the SOSI, and Demographic Characteristics. The next section contains the results from these tests.

Mastery Experiences and Gender

The Kruskal-Wallis Test for mastery experiences and respondents' gender indicated a significant difference ($p = .252$) between group mean rankings ($H = 2.755$, df = 2). This suggests that despite apparent numeric differences in mastery experiences scores across mean rankings of age groupings, none were statistically significant.

Mastery Experiences and Age

The Kruskal-Wallis test for mastery experience scores and age indicated a nonsignificant difference ($p = .068$) between group rank means at the alpha level of < 0.05. The mean rank value ($H = 7.138$, df = 3) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in mastery experience scores across mean rankings of age groupings, none were statistically significant.

Mastery Experiences and Race

The Kruskal-Wallis test for mastery experiences and race indicated there were no significant differences found between mean group rankings ($H = 4.794$, df = 3, $p = .188$). This suggests that despite apparent numeric differences in mastery experiences scores across mean rankings of age groupings, none were statistically significant.

Mastery Experiences and Education Level

The Kruskal-Wallis test for mastery experiences and education level (e.g., HS/HS equivalence, some college, associate degree, technical training, bachelor's degree, master's degree and doctorate) indicated no significant differences found between mean group rankings (H = 10.325, df = 6, p = .112). This suggests that despite apparent numeric differences in mastery experiences scores across mean rankings of education levels, none were statistically significant.

Mastery Experiences and Discipline Area

The Kruskal-Wallis Test for mastery experiences and discipline area indicated a non-significant difference (p = .407) between group mean rank (H = 9.331, df = 9). This suggests that despite apparent numeric differences in mean mastery experiences scores across mean rankings of discipline area groups, none were statistically significant.

Mastery Experiences and Years of Teaching Experience

The Kruskal-Wallis Test for mastery experiences and years of teaching experience indicated a nonsignificant difference (p = .110) between group mean rankings (H = 7.550, df = 4). This suggests that despite apparent numeric differences in mastery experiences scores across mean rankings of teaching experience groupings, none were statistically significant.

Mastery Experiences and Years Teaching Experience in Special Setting

The Kruskal-Wallis Test for mastery experiences and years of teaching in a special setting showed a nonsignificant difference (p = .198) between group mean rankings (H = 6.018, df = 4). This suggests that despite apparent numeric differences in mean rankings across years of experience teaching in special setting groups, none were statistically significant.

Mastery Experiences and Teaching Assignment/Placement

The Kruskal-Wallis Test for mastery experiences and teaching setting (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference ($p = .226$) between group mean rankings ($H = 5.663$, df = 4). This suggests that despite apparent numeric differences in mean rankings of mastery experiences scores across teaching settings, none were statistically significant.

Mastery Experiences and Age of Respondents' Students

The Kruskal-Wallis Test for mastery experiences and the age of respondents' students indicated a nonsignificant difference ($p = .119$) between group mean rankings ($H = 8.754$, df = 5). This suggests that despite apparent numeric differences in group mean rankings across student age level groupings, none were statistically significant based on the mean rank difference.

Mastery Experiences and Gender of Respondents' Students

The Kruskal-Wallis Test for mastery experiences and the gender of respondents' students indicated a significant difference ($p = .004$) between group mean rankings ($H = 10.964$, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators teaching male only students and those who taught both genders ($H = -20.582$, SE=8.920, $p = .014$). This suggests educators teaching male only students scored about 20 points lower on mastery experiences than educators teaching both genders based on the mean rank difference.

Mastery Experiences and Content Area

The Kruskal-Wallis Test for mastery experiences and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a significant difference (p = .037) between group mean rankings (H = 19.267, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators teaching vocational/transition skills only and those who taught a combination of academic and social skills (H = -19.105, SE=5.600, p = .002). This suggests educators teaching vocational/transition skills only scored about 19 points lower on mastery experiences than educators teaching both academics and social skills based on the mean rank difference.

Mastery Experiences and Subject Area

The Kruskal-Wallis Test for mastery experiences and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a significant difference (p = .003) between group mean rankings (H = 19.451, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators teaching sciences and those who ELA (H = 25.300, SE=8.003, p = .002). This suggests educators teaching science subjects scored about 25 points higher on mastery experiences than educators teaching ELA based on the mean rank difference.

Mastery Experiences and Caseload Size

The Kruskal-Wallis Test for mastery experiences and respondents' caseload indicated a nonsignificant difference (p =.238) between group mean rankings (H = 4.230, df = 3). This

suggests that despite apparent numeric differences in mastery experience scores across mean rankings of caseload size groups, none were statistically significant.

Mastery Experiences and Instructional Setting

The Kruskal-Wallis Test for mastery experiences and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference ($p = .675$) between group mean rankings ($H = 2.330$, df = 4). This suggests that despite apparent numeric differences in mastery experience scores across mean rankings of instructional setting groups, none were statistically significant.

Mastery Experiences and Class Size

The Kruskal-Wallis Test for mastery experiences and respondents' class size indicated a nonsignificant difference ($p = .722$) between group mean rankings ($H = 2.076$, df = 4). This suggests that despite apparent numeric differences in mastery experience scores across mean rankings of class size groups, none were statistically significant.

Mastery Experiences and Setting-Specific Training

The Kruskal-Wallis Test for mastery experiences and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference ($p = .898$) between group mean rankings ($H = 2.851$, df = 7). This suggests that despite apparent numeric differences in mastery experience scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: Mastery Experiences and Demographic Characteristics

I ran the Kruskal Wallis test on the four sources of efficacy. I will begin with discussion of the mastery experiences and demographic characteristics. There were non-significant findings in all but three of sixteen demographic areas on the mastery experiences section of the SOSI. The first was discipline area, in which teachers who taught both academic and social skills scored higher than teachers who taught vocational/transition skills only. Teachers who taught science had higher group mean rankings in mastery experiences than did educators who taught ELA. There were also significant differences in group mean rankings of mastery experiences scores on student gender, with educators who teach male only students scored lower than educators of both genders based on group mean rankings.

Vicarious learning and Demographic Characteristics

Vicarious learning and Gender

The Kruskal-Wallis Test for vicarious experiences and respondents' gender indicated a nonsignificant difference ($p = .090$) between group mean rankings ($H = 4.824$, df = 2). This suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of gender groupings, none were statistically significant.

Vicarious learning and Age

The Kruskal-Wallis test for vicarious experience scores and age indicated a nonsignificant difference ($p = .063$). The mean rank value ($H = 7.281$, df = 3) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of age groupings, none were statistically significant.

Vicarious learning and Race

The Kruskal-Wallis test for vicarious experiences and race indicated there were no significant differences found between mean group rankings (H = 4.500, df = 3, p = .212). This suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of racial groupings, none were statistically significant.

Vicarious learning and Education Level

The Kruskal-Wallis test for vicarious experiences and education level (e.g., HS/HS equivalence, some college, associate's degree, technical training, bachelor's degree, master's degree and doctorate) indicated no significant differences found between mean group rankings (H = 10.197, df = 6, p = .117). This suggests that despite apparent numeric differences in Vicarious experiences scores across mean rankings of education levels, none were statistically significant.

Vicarious learning and Discipline Area

The Kruskal-Wallis Test for vicarious experiences and discipline area indicated a non-significant difference (p = .228) between group mean rank (H = 11.742, df = 9). This suggests that despite apparent numeric differences in mean vicarious experiences scores across mean rankings of discipline area groups, none were statistically significant.

Vicarious learning and Years of Teaching Experience

The Kruskal-Wallis Test for vicarious experiences and years of teaching experience indicated a nonsignificant difference (p = .075) between group mean rankings (H = 8.483, df = 4). This suggests that despite apparent numeric differences in vicarious experiences scores across mean rankings of teaching experience groupings, none were statistically significant.

Vicarious learning and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for vicarious experiences and years of teaching in a special setting showed a nonsignificant difference (p = .253) between group mean rankings (H = 5.350, df = 4). This suggests that despite apparent numeric differences in mean rankings across years of experience teaching in special setting groups, none were statistically significant.

Vicarious learning and Teaching Assignment

The Kruskal-Wallis Test for vicarious experiences and teaching setting (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference (p = .457) between group mean rankings (H = 3.637, df = 4). This suggests that despite apparent numeric differences in mean rankings of vicarious experiences scores across teaching settings, none were statistically significant.

Vicarious learning and Age of Respondents' Students

The Kruskal-Wallis Test for vicarious experiences and the age of respondents' students indicated a nonsignificant difference (p = .252) between group mean rankings (H = 6.599, df = 5). This suggests that despite apparent numeric differences in group mean rankings of vicarious experience scores across student age level groupings, none were statistically significant based on the mean rank difference.

Vicarious learning and Gender of Respondents' Students

The Kruskal-Wallis Test for vicarious experiences and the gender of respondents' students indicated a significant difference (p = .006) between group mean rankings (H = 10.228, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators teaching female only students and

those who taught both genders (H = -22.999, SE=8.671, p = .024). This suggests educators teaching female only students scored about 23 points lower on vicarious experiences than educators teaching both genders based on the mean rank difference.

Vicarious learning and Content Area

The Kruskal-Wallis Test for vicarious experiences and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a nonsignificant difference (p = .354) between group mean rankings (H = 11.051, df = 2). This suggests that despite apparent numeric differences in group mean rankings of vicarious experience scores across content area groupings, none were statistically significant based on the mean rank difference.

Vicarious learning and Subject Area

The Kruskal-Wallis Test for vicarious learning and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a nonsignificant difference (p = .060) between group mean rankings (H = 12.109, df = 2). This suggests that despite apparent numeric differences in group mean rankings of vicarious experience scores across subject area groupings, none were statistically significant based on the mean rank difference.

Vicarious Experiences and Caseload Size

The Kruskal-Wallis Test for vicarious experiences and respondents' caseload indicated a nonsignificant difference (p = .078) between group mean rankings (H = 6.813, df = 3). This

suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of caseload size groups, none were statistically significant.

Vicarious Experiences and Instructional Setting

The Kruskal-Wallis Test for vicarious experiences and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference ($p = .567$) between group mean rankings ($H = 2.944$, df = 4). This suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of instructional setting groups, none were statistically significant.

Vicarious Experiences and Class Size

The Kruskal-Wallis Test for vicarious experiences and respondents' class size indicated a nonsignificant difference ($p = .090$) between group mean rankings ($H = 8.033$, df = 4). This suggests that despite apparent numeric differences in vicarious experience scores across mean rankings of class size groups, none were statistically significant.

Vicarious Experiences and Setting-Specific Training

The Kruskal-Wallis Test for vicarious experiences and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference ($p = .278$) between group mean rankings ($H = 8.662$, df = 7). This suggests that despite apparent numeric differences in vicarious experience scores across mean, none were statistically significant.

Summary Analysis of Variance: Vicarious Experiences and Demographic Characteristics

I ran the Kruskal Wallis test on Vicarious experiences and Demographic Characteristics. There were no significant findings except between group mean rankings of Vicarious

experiences scores and student gender, where educators of female only students scored significantly lower than educators of both genders based on the group mean rank difference.

Verbal Persuasion and Demographic Characteristics

Verbal Persuasion and Gender

The Kruskal-Wallis Test for verbal persuasion and respondents' gender indicated a significant difference ($p = .046$) between group mean rankings ($H = 6.165$, df = 2). However, the pairwise comparison with Bonferroni correction indicated nonsignificant differences in mean ranks between all genders. This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of gender groupings, none were statistically significant.

Verbal Persuasion and Age

The Kruskal-Wallis test for verbal persuasion scores and age indicated a nonsignificant difference ($p = .281$) between group rank means. The mean rank value ($H = 3.827$, df = 3) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of age groupings, none were statistically significant.

Verbal Persuasion and Race

The Kruskal-Wallis test for verbal persuasion and race indicated there were no significant differences found between mean group rankings ($H = 4.712$, df = 3, $p = .194$). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of racial groupings, none were statistically significant.

Verbal Persuasion and Education Level

The Kruskal-Wallis test for verbal persuasion and education level (e.g., HS/HS equivalence, some college, associate's degree, technical training, bachelor's degree, master's degree and doctorate) indicated no significant differences found between mean group rankings (H = 8.008, df = 6, p = .112). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of education levels, none were statistically significant.

Verbal Persuasion and Discipline Area

The Kruskal-Wallis Test for verbal persuasion and discipline area indicated a non-significant difference (p = .688) between group mean rank (H = 6.513, df = 9). This suggests that despite apparent numeric differences in mean verbal persuasion scores across mean rankings of discipline area groups, none were statistically significant.

Verbal Persuasion and Years of Teaching Experience

The Kruskal-Wallis Test for verbal persuasion and years of teaching experience indicated a nonsignificant difference (p = .593) between group mean rankings (H = 2.793, df = 4). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of teaching experience groupings, none were statistically significant.

Verbal Persuasion and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for verbal persuasion and years of teaching in a special setting showed a nonsignificant difference (p = .141) between group mean rankings (H = 6.910, df = 4). This suggests that despite apparent numeric differences in mean rankings of verbal persuasion scores across years of experience teaching in special setting groups, none were statistically significant.

Verbal Persuasion and Teaching Assignment/Placement

The Kruskal-Wallis Test for verbal persuasion and teaching assignment (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference ($p = .354$) between group mean rankings ($H = 4.405$, df = 4). This suggests that despite apparent numeric differences in mean rankings of verbal persuasion scores across teaching settings, none were statistically significant.

Verbal Persuasion and Age of Respondents' Students

The Kruskal-Wallis Test for verbal persuasion and the age of respondents' students indicated a nonsignificant difference ($p = .979$) between group mean rankings ($H = .769$, df = 5). This suggests that despite apparent numeric differences in group mean rankings of verbal persuasion scores across student age level groupings, none were statistically significant based on the mean rank difference.

Verbal Persuasion and Gender of Respondents' Students

The Kruskal-Wallis Test for verbal persuasion and the gender of respondents' students indicated a significant difference ($p = .031$) between group mean rankings ($H = 6.952$, df = 2). However, the pairwise comparison with Bonferroni correction indicated nonsignificant differences in gender group mean ranks. This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of student gender groups, none were statistically significant.

Verbal Persuasion and Content Area

The Kruskal-Wallis Test for verbal persuasion and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills,

two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a nonsignificant difference (p = .115) between group mean rankings (H = 15.482, df = 2). This suggests that despite apparent numeric differences in group mean rankings of verbal persuasion scores across content area groupings, none were statistically significant based on the mean rank difference.

Verbal Persuasion and Subject Area

The Kruskal-Wallis Test for verbal persuasion and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a significant difference (p = <.001) between group mean rankings (H = 22.584, df = 2). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators teaching sciences and those who taught social studies/government/geography (H = -36.241, SE=9.720, p = .002). This suggests educators teaching science subjects scored about 36 points lower on verbal persuasion than educators teaching social studies/government/geography based on the mean rank difference.

Verbal Persuasion and Caseload Size

The Kruskal-Wallis Test for verbal persuasion and respondents' caseload indicated a significant difference (p = .031) between group mean rankings (H = 8.908, df = 3). However, the pairwise comparison with Bonferroni correction indicated nonsignificant differences in case size group mean ranks. This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of case size groups, none were statistically significant.

Verbal Persuasion and Instructional Setting

The Kruskal-Wallis Test for verbal persuasion and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference ($p = .605$) between group mean rankings ($H = 2.724$, df = 4). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of instructional setting groups, none were statistically significant.

Verbal Persuasion and Class Size

The Kruskal-Wallis Test for verbal persuasion and respondents' class size indicated a nonsignificant difference ($p = .486$) between group mean rankings ($H = 3.447$, df = 4). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of class size groups, none were statistically significant.

Verbal Persuasion and Setting-Specific Training

The Kruskal-Wallis Test for verbal persuasion and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference ($p = .406$) between group mean rankings ($H = 7.223$, df = 7). This suggests that despite apparent numeric differences in verbal persuasion scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: Verbal Persuasion and Demographic Characteristics

I ran the Kruskal-Wallis test on verbal persuasion experiences and demographic characteristics. There were no significant findings except between group mean rankings of scores and teaching subject. Educators who taught social studies/government/geography scored significantly higher than science teachers based on the group mean rank difference.

Emotional/Physiological States and Demographic Characteristics

Emotional/Physiological States and Gender

The Kruskal-Wallis Test for emotional/physiological states and respondents' gender indicated a significant difference (p =.003) between group mean rankings (H = 11.455, df = 2). The pairwise comparison with Bonferroni correction indicated significant differences in group mean ranks between those identify as "other" genders and male respondents (H = 30.541, SE=9.402, p = .003) and those identifying as "other" genders and female respondents (H = 30.673, SE=9.533, p = .004). This suggests educators identifying as "other" genders scored about 31 points higher on Emotional/Physiological States than both female and male participants based on the mean rank difference.

Emotional/Physiological States and Age

The Kruskal-Wallis test for emotional/physiological states scores and age indicated a nonsignificant difference between group rank means. The mean rank value (H = 2.586, df = 3, p = .460) suggests that there are no significant differences in mean ranks across age groups. This suggests that despite apparent numeric differences in emotional/physiological states scores across mean rankings of age groupings, none were statistically significant.

Emotional/Physiological States and Race

The Kruskal-Wallis test for emotional/physiological states and race indicated there were no significant differences found between mean group rankings (H = 1.926, df = 3, p = .588). This suggests that despite apparent numeric differences in emotional/physiological states scores across mean rankings of racial groupings, none were statistically significant.

Emotional/Physiological States and Education Level

The Kruskal-Wallis test for emotional/physiological states and education level (e.g., HS/HS equivalence, some college, associate degree, technical training, bachelor's degree, master's degree and doctorate) indicated no significant differences found between group mean rankings (H = 2.275, df = 6, p = .893). This suggests that despite apparent numeric differences in emotional/physiological states scores across group mean rankings of education levels, none were statistically significant.

Emotional/Physiological States and Discipline Area

The Kruskal-Wallis Test for emotional/physiological states and discipline area indicated a non-significant difference (p = .187) between group mean rank (H = 12.488, df = 9). This suggests that despite apparent numeric differences in mean emotional/physiological states scores across mean rankings of discipline area groups, none were statistically significant.

Emotional/Physiological States and Years of Teaching Experience

The Kruskal-Wallis Test for emotional/physiological states and years of teaching experience indicated a nonsignificant difference (p = .163) between group mean rankings (H = 6.536, df = 4). This suggests that despite apparent numeric differences in emotional/physiological states scores across mean rankings of teaching experience groupings, none were statistically significant.

Emotional/Physiological States and Years of Teaching Experience in Special Setting

The Kruskal-Wallis Test for emotional/physiological states and years of teaching in a special setting showed a significant difference (p = .009) between group mean rankings (H = 13.459, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant

differences in group mean ranks between all except between educators with no experience working with justice-involved juveniles and those having four to 10 years of experience in a special setting (H = -50.183, SE=5.600, p = .002). This suggests educators with no prior experience with justice-involved juveniles scored about 50 points lower on emotional/physiological states than educators with four to 10 years of experience in a special setting based on the mean rank difference.

Emotional/Physiological States and Teaching Assignment/Placement

The Kruskal-Wallis Test on emotional/physiological states and teaching setting (e.g., short term detention facility, alternative campus, juvenile minimum security, juvenile maximum security or other facility) indicated a nonsignificant difference (p = .320) between group mean rankings (H = 5.663, df = 4). This suggests that despite apparent numeric differences in mean rankings of emotional/physiological states scores across teaching settings, none were statistically significant.

Emotional/Physiological States and Age of Respondents' Students

The Kruskal-Wallis Test for emotional/physiological states and the age of respondents' students indicated a nonsignificant difference (p = .343) between group mean rankings (H = 5.673, df = 5). This suggests that despite apparent numeric differences in group mean rankings on emotional/physiological states across student age level groupings, none were statistically significant based on the mean rank difference.

Emotional/Physiological States and Gender of Respondents' Students

The Kruskal-Wallis Test for emotional/physiological states and the gender of respondents' students indicated a nonsignificant difference (p = .200) between group mean

rankings (H = 3.214, df = 2). This suggests that despite apparent numeric differences in group mean rankings on emotional/physiological states across student gender groupings, none were statistically significant based on the mean rank difference.

Emotional/Physiological States and Content Area

The Kruskal-Wallis Test for on emotional/physiological states and respondents' teaching content area (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]) indicated a nonsignificant difference (p = .761) between group mean rankings (H = 6.615, df = 2). This suggests that despite apparent numeric differences in group mean rankings on emotional/physiological states across content area groupings, none were statistically significant based on the mean rank difference.

Emotional/Physiological States and Subject Area

The Kruskal-Wallis Test for emotional/physiological states and respondents' teaching subject area (e.g., science, mathematics, ELA, social studies/government/geography, mixed, all, or other) indicated a nonsignificant difference (p = .567) between group mean rankings (H = 4.822, df = 2). This suggests that despite apparent numeric differences in group mean rankings on emotional/physiological states across subject area groupings, none were statistically significant based on the mean rank difference.

Emotional/Physiological States and Caseload Size

The Kruskal-Wallis Test for emotional/physiological states and respondents' caseload indicated a nonsignificant difference (p = .066) between group mean rankings (H = 7.178, df =

3). This suggests that despite apparent numeric differences in emotional/physiological states scores across mean rankings of caseload size groups, none were statistically significant.

Emotional/Physiological States and Instructional Setting

The Kruskal-Wallis Test for emotional/physiological states and respondents' instructional setting (one-to-one, small group, whole group, individual seatwork, and multiple modalities) indicated a nonsignificant difference ($p = .666$) between group mean rankings ($H = 2.99$, df = 4). This suggests that despite apparent numeric differences in emotional/physiological states scores across mean rankings of instructional setting groups, none were statistically significant.

Emotional/Physiological States and Class Size

The Kruskal-Wallis Test for emotional/physiological states and respondents' class size indicated a significant difference (.008) between group mean rankings ($H = 13.822$, df = 4). The pairwise comparison with Bonferroni correction indicated nonsignificant differences in group mean ranks between all except between educators with classes of 6-9 students and those with class sizes of 10-12 students ($H = -23.671$, SE=7.071, $p = .008$). This suggests educators with 6-9 students per class prior scored about 24 points lower on emotional/physiological states than educators with class sizes of 10-12 students based on the mean rank difference.

Emotional/Physiological States and Setting-Specific Training

The Kruskal-Wallis Test for emotional/physiological states and the type of professional development specific to students involved in the juvenile justice system the respondent had participated indicated a nonsignificant difference ($p = .161$) between group mean rankings ($H = 10.526$, df = 7). This suggests that despite apparent numeric differences in

emotional/physiological states scores across mean rankings of professional development groupings, none were statistically significant.

Summary Analysis of Variance: Emotional/Physiological and Demographic Characteristics

I ran the Kruskal-Wallis test on emotional/physiological states and demographic characteristics. There were no significant findings except for three characteristic variables. The first was in respondents' gender. Educators who identified as other scored significantly higher on emotional/physiological states than either males or females based on group mean rankings. The scores on emotional/physiological states and years of teaching experience in a special setting were also significantly different with educators having 4-10 years of experience scoring higher than educators with no experience teaching justice-involved juveniles. The third area of significant differences on emotional/physiological states scores was in class size. Educators with 6-9 students scored lower than teachers with slightly larger class sizes of 10-12 students.

TSES Factorized Families and Demographic Characteristics

I used the Friedman test to examine how demographic variables influence the three TSES factorized families simultaneously. Similar to the Kruskal-Wallis test, the Friedman test allows the assessment of differences in mean rankings of scores across demographic variable groups. However, unlike the Kruskal-Wallis, the Friedman test allows for evaluation of differences in mean rankings for each type of self-efficacy score while controlling for the interrelationships between the scores. This allowed me to evaluate possible differences in components of teacher self-efficacy beliefs (Efficacy in instructional Strategies, Efficacy in classroom Management, and Efficacy in student Engagement) across demographic traits.

TSES Factorized Families and Gender

The Friedman test for differences in group mean rankings of gender groupings and the three factorized families of the TSES indicated significant differences. The Friedman test indicated a significant difference in gender groupings on Efficacy in Classroom Management (H = 7.715, df = 2, p = .021). In this area of the TSES females (n = 33, H = 50.95) scored higher than males (n = 42, H = 36.58) and those identifying as other genders (n = 8, H = 33.50). The Friedman test for differences in gender indicated a significant difference in Efficacy in Instructional Strategies scores across gender group mean rankings (H = 9.171, df = 2, p = .010). In this area of the TSES females (n = 33, H = 51.82) scored higher than males (n = 42, H = 35.67) and those identifying as other genders (n = 8, H = 34.75). The Friedman test for differences in gender indicated a significant difference in Efficacy in Student Engagement scores across gender group mean rankings (H = 12.921, df = 2, p = .002). In this area of the TSES females (n = 34, H = 53.37) scored higher than males (n = 40, H = 34.26) and those identifying as other genders (n = 9, H = 33.44). This suggests that females scored higher than males by about 15 rank points, who scored higher than other genders by about 1 rank point on all three areas of the TSES.

TSES Factorized Families and Age

The Friedman test for differences in group mean rankings of age groupings and the three factorized families of the TSES indicated a significant differences. The Friedman test indicated a significant difference in age groupings on Efficacy in Classroom Management (H = 8.876, df = 3, p = .031). In this area of the TSES, educators group mean rankings appear to increase with age. Educators between the ages of 21 and 30 had a mean rank of 32.23 (n = 22). Respondents ages 31-40 scored about nine points higher (n = 46, H = 41.12), with respondents ages 41-50 reporting about a 12-point increase from ages 31-40 (n = 11, H = 52.82). Respondents ages 51-

60 scored the highest in mean rank points (n = 2, H = 69.75), about 17 points higher than those aged 41-50. This suggests respondents aged 51-60 scored twice as high on group mean rankings as respondents aged 21-30. There were no significant differences found on Efficacy in Instructional Strategies and Efficacy for Student Engagement based on group mean rankings of age groupings). This suggests that despite apparent numeric differences in group mean rankings of these two areas of the TSES, none were statistically significant. However, on Efficacy for Classroom Management, there were significant differences that suggest as respondents' age goes up, respondents' classroom management scores also increase.

TSES Factorized Families and Race

The Friedman test for differences in group mean rankings of racial groupings and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 1.791, df = 3, p = .617), Efficacy in Instructional Strategies (H = .038, df = 3, p = .998), or Efficacy in Student Engagement (H = 6.345, df = 3, p = .096) across racial groupings. This suggests that despite apparent numeric differences in group mean rankings of the TSES factorized families across racial groupings, none were statistically significant.

TSES Factorized Families and Education Level

The Friedman test for differences in group mean rankings of education level and the three factorized families of the TSES indicated significant differences. The Friedman test indicated a significant difference in education level groupings on Efficacy in Classroom Management (H = 20.308, df = 6, p = .002). In this area of the TSES, educators with HS/HS equivalence had a mean rank of 23.00 (n = 2), and educators with some college scored about three points higher in group mean rankings (n = 12, H = 25.25). Respondents with an associate's degree (n = 9, H =

32.78) scored higher than those respondents with some college, but lower than those with technical training or certification (n = 13, *H* = 40.35). Respondents with a bachelor's degree scored about 1.5 points higher in group mean rankings than those with technical training or certification (n = 23, *H* = 41.76). There was an increase of almost 12 points for respondents with master's degrees (n = 20, *H* = 60.38). There was a significant drop in group mean rankings from those with masters' degrees and for respondents with doctoral degrees (n = 4, *H* = 37.38), making them fourth lowest in group mean rankings on Efficacy in Classroom Management. This suggests that there are significant differences in education level group mean rankings, with scores in classroom management mostly increasing with increases in educational and/or technical training. The outlier to this is the doctoral category, which fell at the median of group mean rankings rather than at the top as it should if the increase in education level continued across all education group mean rankings.

The Friedman test also indicated a significant difference in education level groupings on Efficacy in Instructional Strategies (*H* = 19.471, df = 6, *p* = .003). In this area of the TSES, educators with HS/HS equivalence had a mean rank of 18.00 (n = 2), and educators with some college scored almost twice as much higher in group mean rankings (n = 13, *H* = 32.27). Respondents with an associate's degree (n = 9, *H* = 35.83) scored higher than those respondents with some college and those with technical training or certification (n = 12, *H* = 34.17). Respondents with a bachelor's degree (n = 23, *H* = 43.80) scored about eight points higher in group mean rankings than those with technical training or certification. There was an increase of about 16 points from respondents with a bachelor's degree and respondents with master's degrees (n = 20, *H* = 59.80). There was a significant decrease in group mean rankings from those with masters' degrees and for respondents with doctoral degrees (n = 4, *H* = 23.63), making

them the second lowest education group in mean rankings on Efficacy in Instructional Strategies. Taken altogether this suggests that there are significant differences in education level group mean rankings, with scores in classroom management and instructional strategies mostly increasing with increases in educational and/or technical training. The outlier to this is the doctorate category, which decreased by more than half the rank points as compared to the master's respondents.

TSES Factorized Families and Discipline Area

The Friedman test for differences in group mean rankings of discipline area groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 11.003, df = 9, p = .275), Efficacy in Instructional Strategies (H = 8.291, df = 9, p = .998), or Efficacy in Student Engagement (H = 9.031, df = 9, p = .434) across discipline area groupings. This suggests that despite apparent numeric differences in group mean rankings of discipline area and the TSES factorized families, none were statistically significant.

TSES Factorized Families and Years of Teaching Experience

The Friedman test for differences in group mean rankings of years of teaching experience groupings and the three factorized families of the TSES indicated a significant difference. The Friedman test indicated a significant difference in teaching experience groupings on Efficacy in Classroom Management (H = 14.297, df = 4, p = .006). In this area of the TSES, educators with zero years of teaching experience had a mean rank of 16.00 (n = 1) whereas those with 1-3 years of teaching experience (n = 33, H = 30.86) had group mean rankings more than three times as high on Classroom Management scores. Respondents with 4-10 years of experience increased in mean group rankings by about 50 points (n = 31, H = 50.39). There was a decrease in rank

points for respondents with 11-20 years of experience (n = 13, H = 46.81). In contrast, the former positive pattern of increases in test scores mirroring an increase in years of experience were continued in respondents reporting having more than 20 years of teaching experience (n = 5, H = 56.20). This group had increased mean group rankings in Efficacy in Classroom Management over those with 11-20 years (about 10 points difference) and those with 4-10 years of experience (about six-point difference). There were no significant differences found on Efficacy in Instructional Strategies and Efficacy for Student Engagement based on group mean rankings of years of teaching experience groupings. This suggests that despite apparent numeric differences in group mean rankings of these two areas of the TSES, none were statistically significant. However, on Efficacy for Classroom Management, there were significant differences that suggest as respondents' teaching experience goes up, so do their Classroom Management Scores. The only outlier to this was the respondent group with 11-20 years of experience, which exhibited an apparent drop in group mean rankings rather than an increase from those with 4-10 years of experience.

TSES Factorized Families and Years of Teaching Experience in Special Setting

The Friedman test for differences in group mean rankings of years teaching experience with justice-involved juveniles groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 3.550 df = 4, p = .470), Efficacy in Instructional Strategies (H = 3.095, df = 4, p = .542), or Efficacy in Student Engagement (H = 1.333, df = 4, p = .856) across years of experience in a special setting groupings. This suggests that despite apparent numeric differences in group mean rankings of years teaching experience with justice involved juveniles and the TSES factorized families, none were statistically significant.

TSES Factorized Families and Teaching Assignment/Placement

The Friedman test for differences in group mean rankings of teaching setting groupings and the three factorized families of the TSES indicated a significant differences. The Friedman test indicated a significant difference in teaching setting groupings on Efficacy in Instructional Strategies (H = 13.155, df = 4, p = .011). Respondents from the other grouping (n = 4, H = 72.50) scored significantly higher in group mean rankings. The second highest ranking group was the respondents from short-term detention facilities (n = 10, H = 54.00), followed by educators at alternative campuses (n = 39, H = 41.82). The respondent group working at juvenile minimum-security facilities scored only four points lower than those at alternative campuses. Respondents from the juvenile maximum security group (n = 20, H = 27.95) scored almost ten points lower than those at minimum security facilities. In this group of educators, there were no significant differences found on Efficacy in Classroom Management and Efficacy in Student Engagement based on group mean rankings of setting groupings. This suggests that despite apparent numeric differences in group mean rankings of setting groupings on these two areas of the TSES, none were statistically significant. However, on Efficacy in Instructional Strategies, there were significant differences. These suggest setting may influence efficacy in instructional strategies based on the restrictiveness of the setting, particularly as the group of respondents who reported working at juvenile maximum security facilities had the lowest group mean rankings. In contrast the group of respondents who reported working at other facilities had the highest group mean rankings for instructional strategies, suggesting this group may feel more efficacious in teaching strategies and techniques than the other setting groups.

TSES Factorized Families and Age of Respondents' Students

The Friedman test for differences in group mean rankings of student age groupings and the three factorized families of the TSES indicated significant differences in all three areas. The Friedman test indicated a significant difference in student age groupings on Efficacy in Classroom Management (H = 16.918, df = 5, p = .005). Respondents who reported teaching all age groupings (n = 2, H = 81.50) scored significantly higher than the other student age groupings in group mean rankings. The second highest ranking group was the respondents teaching ages 12-17 year-old students and 18 years and older juveniles (n =4, H = 54.88). Those teaching 10-11 and 12-17 year old students (n = 7, H = 54.00) ranked only slightly lower. Educators teaching juveniles 18 years and older (n = 2, H = 47.25) scored only slightly higher in rank points than those teaching 12-17 year old students (n = 38, H = 45.66). Educators working only with 10-11 year-old justice-involved juveniles (n = 30, H = 29.87) scored about 16 rank points lower. This suggests respondents teaching multiple age groupings ranked higher on Efficacy in Classroom Management scores than did educators of single age groupings based on group mean rankings. In contrast, educators working with only younger students appear to feel least efficacious in classroom management of the groups based on differences in group mean rankings.

The Friedman test also indicated a significant difference in student age groupings on Efficacy in Instructional Strategies (H = 14.607, df = 5, p = .012). Respondents who reported teaching all age groupings (n = 2, H = 77.75) scored significantly higher than the other student age groupings in group mean rankings. The second highest ranking group was the respondents teaching ages 12-17 year-old students and 18 years and older juveniles (n =4, H = 54.38). Those teaching only 12-17 year old students (n = 38, H = 47.32) ranked seven points lower. Educators teaching juveniles both 10-11 and 12-17 year old students (n = 7, H = 44.93) were ranked about three points lower, and educators of the 18 years and older group (n = 3, H = 42.67) were about

two rank points below that. Educators teaching only 10-11 year old students (n = 29, H = 30.09) ranked lowest in group mean rankings on instructional strategies. This suggests that for the most part, educators with older students have higher mean rankings on instructional strategy scores. The outlier to this would be the 18 years and older students group, which ranked below educators of 12-17 year old students and lower than educators teaching both 10-11 year old students and 12-17 year old students. In contrast, educators working with older student groups (e.g., 12-17 year old students and 18 years and older students) and those educators working with All age groups had the highest group mean rankings in instructional strategies.

The Friedman test also indicated a significant difference in student age groupings on Efficacy in Student Engagement (H = 11.913, df = 5, p = .036). In contrast to the other two types of efficacy, respondents teaching both 12-17 year old and 18 years and older students (n = 4, H = 63.63) ranked highest, closely followed by educators of All age groups (n = 2, H = 59.50). Ranking significantly lower was educators of 12-17 year old students (n = 37, H = 47.34) and educators of 18 years and older students (n = 3, H = 46.17). The next highest ranking group based on group means was teachers of 10-11 year old students and 12-17 year old students (n = 7, H = 39.00). Respondents with 10-11 year old only students (n = 30, H = 31.65) ranked about seven points lower. These data suggest educators of older students had higher group mean rankings than those of younger students, while those teaching All age groupings ranked highest in mean scores on Efficacy in Student Engagement.

TSES Factorized Families and Gender of Respondents' Students

To run the Friedman test for student gender and educator TSES scores I used the categories of male, female, and both. The Friedman test for differences in group mean rankings of student gender groupings and the three factorized families of the TSES indicated a significant

difference. The Friedman test indicated a significant difference in subject area groupings on Efficacy in Classroom Management scores (H = 11.032, df = 2, p = .004). Respondents who reported teaching both genders of students (n = 62, H = 46.33) ranked highest on Efficacy in Classroom Management group mean rankings. Respondents teaching female students only were ranked almost five points lower (n = 8, H = 40.94). Educators who reported teaching male only students were ranked almost 20 points lower (n = 13, H = 22.00). This suggests respondents teaching both genders ranked higher on Efficacy in Classroom Management scores than did educators of female only or male only students. Further, respondents who taught females only scored significantly higher than educators of male only students, suggesting they feel more efficacious in classroom management strategies.

TSES Factorized Families and Content Area

To run the Friedman test for content area and TSES scores I used the categories of academic, vocational/trans, social skills, health/PE, life skills/community-based skills, two or more non-academic, academic plus one (vocational/transition, social skills, health/PE, and life/community-based skills), and vocational/transition skills and social skills. The Friedman test for differences in group mean rankings of content area groupings and the three factorized families of the TSES indicated significant differences. The Friedman test indicated a significant difference in content area groupings on Efficacy in Classroom Management scores (H = 22.488, df = 10, p = .013). Respondents who reported teaching academic and life skills (n = 1, H = 65.00) ranked highest on Efficacy in Classroom Management group mean rankings. Ranked only slightly lower were respondents teaching academics and vocational/transitional skills (n = 8, H = 60.44). Educators teaching vocational/transition skills and social skills (n = 6, H = 56.25) and those teaching academic and health courses (n = 4, H = 56.00) ranked less than one point apart.

Educators teaching academics and social skills were ranked next (n = 9, H = 48.22), followed by educators teaching two or more non-academic subjects (n = 9, H = 46.06), and educators teaching life skills and community-based skills (n = 4, H = 42.38). Falling within the lower ranked groupings, were educators who taught single subjects, with the highest ranking group on classroom management being educators teaching health/Pe (n =16, H = 40.94). Educators teaching social skills ranked next (n = 7, H = 37.14), followed by those who taught academic skills only (n = 10, H = 27.80). Educators teaching vocational/transition skills (n = 9, H = 18.33) ranked significantly lower than the other content area groupings based on group mean rankings. This suggests respondents teaching multiple subjects ranked higher on Efficacy in Classroom Management scores than did educators of single subjects based on group mean rankings. In contrast, educators teaching only academic skills or only vocational/transition skills appear to feel least efficacious in classroom management of the groups based on differences in group mean rankings.

The Friedman test also indicated a significant difference in content area on Efficacy in Instructional Strategies (H = 20.805, df = 10, p = .022). Respondents who reported teaching vocational/transition skills and social skills (n = 6, H = 62.42) scored significantly higher than the other content area groupings in group mean rankings. A close second were the respondents who taught academic and vocational/transition skills (n = 8, H = 61.19). Those teaching academic and social skills (n = 9, H = 50.00) ranked about 11 points lower. Educators teaching both academics and health/PE (n = 4, H = 46.38), teaching two or more non-academic classes (n = 9, H = 43.61), and those teaching health/PE (n = 17, H = 40.21) were ranked about three points lower for each content area. Those scoring on the lower end of self-efficacy were educators who taught social skills only (n = 7, H = 39.86) and educators who taught life skills/community-based

skills (n = 3, H = 39.50). Educators teaching academic only content (n = 10, H = 30.20) were ranked about 10 points lower. Educators who taught academic and life skills (n = 1, H = 23.00) and those who taught vocational/transition only skills (n = 9, H = 20.89) appeared to feel least efficacious in the area of instructional strategies. This suggests respondents teaching multiple content areas ranked higher on Efficacy in Instructional Strategies scores than did educators of single content areas based on group mean rankings. In contrast, educators teaching academic and life skills or those teaching only vocational/transition skills appear to feel least efficacious in instructional strategies based on differences in group mean rankings.

TSES Factorized Families and Subject Area

To run the Friedman test for content area and TSES scores I used the categories of English/language arts (ELA), mathematics, science, social studies/government/geography, mixed, other, and all. The Friedman test for differences in group mean rankings of subject area groupings and the three factorized families of the TSES indicated significant differences. The Friedman test indicated a significant difference in subject area groupings on Efficacy in Classroom Management scores (H = 23.767, df = 16, p = <.001). Respondents who reported teaching other (n = 2, H = 62.75) ranked highest on Efficacy in Classroom Management group mean rankings. Ranked almost 10 points lower were respondents teaching social studies/government/geography subjects (n = 11, H = 52.59). Educators teaching all subjects (n = 12, H = 51.67) were about one rank point lower, and ELA teachers (n = 30, H = 47.82) ranked about four points lower than that. Next ranked were educators reporting teaching mixed subjects (n = 8, H = 38.38), followed by those teaching mathematics only (n = 9, H = 27.69). Those educators who reported teaching science were ranked lowest on Efficacy in Instructional Strategies of all the subject area groupings. This suggests respondents teaching multiple subjects

ranked higher on Efficacy in Classroom Management scores than did educators of single subjects based on group mean rankings. In contrast, educators teaching only mathematics or only science appear to feel least efficacious in classroom management of the groups based on differences in group mean rankings.

The Friedman test also indicated a significant difference in subject area on Efficacy in Instructional Strategies (H =14.283, df = 6, p = .027). Respondents who reported teaching other subjects (n = 2, H = 72.00) scored significantly higher than the remaining subject area groupings in group mean rankings. The respondents who taught social studies/government/geography (n = 11, H = 50.27) were ranked more than 20 points lower than those teaching Other subjects. Educators teaching all subject areas (n = 12, H = 44.33) were ranked next highest, closely followed by both Educators of ELA subjects (n = 30, H = 46.08) and educators who reported teaching a mix of subjects (n = 8, H = 38.13). Those scoring on the lower end of self-efficacy were educators who taught mathematics only (n = 8, H = 29.25) and educators who taught only Sciences (n = 12 H = 25.08). Educators teaching academic only content (n = 10, H = 30.20) were ranked about 10 points lower. Educators who taught academic and life skills (n = 1, H = 23.00) and those who taught vocational/transition only skills (n = 9, H = 20.89) appeared to feel least efficacious in the area of instructional strategies. This suggests respondents teaching multiple content areas ranked higher on Efficacy in Instructional Strategies scores than did educators of single content areas based on group mean rankings. In contrast, educators teaching academic and life skills or those teaching only vocational/transition skills appear to feel least efficacious in instructional strategies based on differences in group mean rankings.

TSES Factorized Families and Caseload Size

To run the Friedman test for case size and educator TSES scores I used the categories of < 9, 9-15, 16-20, and > 20. The Friedman test for differences in group mean rankings of case size groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 2.237, df =3, p = .525), Efficacy in Instructional Strategies (H = .029, df =3, p = .999), or Efficacy in Student Engagement (H = 4.425, df = 3, p = .219) across case size groupings. This suggests that despite apparent numeric differences in group mean rankings of case size and the TSES factorized families, none were statistically significant.

TSES Factorized Families and Instructional Setting

To run the Friedman test for instructional setting and educator TSES scores I used the categories of one-to-one, small group, whole group, individual seatwork, and multiple modalities. The Friedman test for differences in group mean rankings of student gender groupings and the three factorized families of the TSES indicated a significant difference. There were no significant differences in Efficacy in Instructional Strategies (H = 9.455, df = 4, p = .051) or Efficacy in Student Engagement (H = 8.131, df = 4, p = .087). However, the Friedman test indicated a significant difference in subject area groupings on Efficacy in Classroom Management scores (H = 11.032, df = 2, p = .024). Respondents who reported teaching settings of one-to-one (n = 7, H = 63.00) ranked highest on Efficacy in Classroom Management group mean rankings. Ranked almost six points lower were respondents who used individual seatwork (n = 3, H = 56.83). Educators who reported teaching through multiple class settings (n = 19, H = 45.71) were ranked at the median of setting groups. Educators who utilized whole group approaches were ranked next (n = 28, H = 35.66), and educators who used small groups (n = 24, H = 35.10). This suggests respondents who used one-to-one or individual seatwork ranked

higher in classroom management based on group mean rankings. Additionally, those who taught groups, albeit small or whole class groups, appeared to feel less efficacious in classroom management.

TSES Factorized Families and Class Size

To run the Friedman test for class size and educator TSES scores I used the categories of less than three, 3-5, 6-9, 10-12, and more than 12. The Friedman test for differences in group mean rankings of case size groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 2.354, df = 4, p = .671), Efficacy in Instructional Strategies (H = 4.412, df = 4, p = .353), or Efficacy in Student Engagement (H = 1.772, df = 4, p = .778) across class size groupings. This suggests that despite apparent numeric differences in group mean rankings of class size and the TSES factorized families, none were statistically significant.

TSES Factorized Families and Setting-Specific Training

To run the Friedman test for professional development and educator TSES scores I used the categories of none, employment, university, on own, university and employment professional development, university and on own, or employment and on own. The Friedman test for differences in group mean rankings of case size groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 6.693, df = 6, p = .324), Efficacy in Instructional Strategies (H = 7.823, df = 6, p = .251), or Efficacy in Student Engagement (H = 7.674, df = 6, p = .263) across professional development groupings. This suggests that despite apparent numeric differences in group mean rankings of professional development groupings and the TSES factorized families, none were statistically significant.

Summary of Variance Analysis: TSES Factorized Families and Demographic Characteristics

The Friedman tests indicated significant differences between self-efficacy scores while controlling for the interrelationships between the three components of self-efficacy (Efficacy in Class Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement). There were significant differences found between the three components of self-efficacy and gender, with there being a significant difference in group mean rankings for females scoring higher than males or other on all three areas of efficacy. Differences in age across group mean rankings of classroom management scores were significant. It appears that Classroom Management scores tend to go up as age increases, with educators between the ages of 51-60 scoring twice as high as educators between the ages of 21-30.

There were significant differences on Classroom Management and Instructional Strategies scores across the education variable. For the most part, scores in Classroom Management and Instructional Strategies appear to increase with higher levels of education. However, this did not hold true for doctoral-level educators who fell at the median of group mean rankings on Efficacy in Classroom Management scores, and second from bottom on Efficacy in Instructional Strategies.

There were significant findings on differences in the years of teaching experience which suggests classroom management group mean rankings increases with teaching experience, although the 11-20 group actually dropped in mean rankings rather than increasing as had been the pattern.

There were no significant findings on Efficacy in Classroom Management or Efficacy in Student Engagement based on group mean rankings of the setting variable. However, there were differences in instructional strategies which suggest efficacy in this area decreases based on the

restrictiveness of the setting. For instance, those who reported working at juvenile maximum security facilities had the lowest group mean rankings on Efficacy in Instructional Strategies.

There were also significant findings on the Friedman test between the three sources of efficacy and student age. Based on group mean rankings, respondents who taught multiple age groups ranked higher on Efficacy in Classroom Management. For the most part, instructional strategies scores indicated higher rankings for older students, suggesting Efficacy in Instructional Strategies increases with student age. This held true for Efficacy in Student Engagement with educators of older students having higher group mean rankings than those younger students, while those teaching all ages had the highest group mean scores.

Educators teaching only academic skills or only vocational/transition skills appear to feel least efficacious of the groups in classroom management. Respondents who taught multiple subjects ranked higher on Efficacy in Classroom Management scores than did single-subject educators, most specifically educators of academic only skills or vocational/transition skills only. In the same vein, educators who taught life skills/community-based skills and educators who taught social skills were ranked on the lower end of Efficacy in Instructional Strategies, with educators teaching multiple content areas being ranked highest. Respondents who taught multiple content areas generally ranked higher on Efficacy in Classroom Management scores, whereas those who taught mathematics or science appear to feel least efficacious in this area based on group mean rankings. Respondents who taught multiple subjects ranked higher on Efficacy in Instructional Strategies, while educators teaching academic and life skills and those teaching vocational/transition skills only appear to feel least efficacious.

There were significant findings on the Friedman tests for class setting and the three components of the TSES. The Friedman test indicated educators whose primary mode of

instruction was one-to-one groupings or individual seatwork ranked highest on Efficacy in Classroom Management. Additionally, those who taught groups, whether small group or whole group, felt less efficacious in classroom management than other groups based on group mean rankings.

There were no significant findings on the three components of TSE and race, the three components and discipline area, the three components and teaching setting, the three components and content area, the three components and student gender, the three components and case size, the three components and class size, or between the three components and types of professional development.

SOSI Factorized Families and Demographic Characteristics

SOSI Factorized Families and Gender

To run the Friedman test for gender and sources of self-efficacy scores I used the categories of male, female, and other gender. The Friedman test for differences in group mean rankings of gender groupings and the four sources of self-efficacy, as measured by the SOSI, indicated some significant differences. There were no significant differences on gender groupings and mastery experiences (H = 2.755, df = 2, p = .003) or vicarious learning (H = 4.824, df = 2, p = .090). However, there were significant differences found between group mean rankings of gender and verbal persuasion and emotional/physiological experiences. The Friedman test indicated a significant difference in gender groupings on verbal persuasion (H = 6.165, df = 2, p = .046). In this area of the SOSI, respondents identifying as "other genders" (n = 8, H = 55.50) scored highest, followed by educators who identified as female (n = 35, H = 46.00). Males (n = 42) were ranked about ten points lower than females on verbal persuasion. The Friedman test also indicated significant differences between gender groupings and

emotional/physiological states (H = 11.455, df = 2, p = .003). In this source of efficacy, females (n = 35, H = 45.49) and males (n = 41, H = 45.35) were ranked within .14 rank points of one another, with those identifying as other genders scoring lowest (n = 8, H = 34.75). This suggests that other gender respondents felt verbal persuasion sources had greatly influenced their feelings of efficacy. Whereas, both male and female respondents reported emotional/physiological states having greatly influenced their feelings of efficacy.

SOSI Factorized Families and Age

The Friedman test for differences in group mean rankings of age groupings and the four sources of efficacy indicated no significant differences. There were no significant differences found in age groupings and mastery experiences (H = 7.138, df = 3, p = .068), vicarious experiences (H = 7.281, df = 3, p = .063), verbal persuasion (H = 3.827, df = 3, p = .281, or emotional physiological states (H = 2.586, df = 3, p = .460). This suggests that despite apparent numeric differences in group mean rankings of age groupings and the four sources of efficacy, none were statistically significant.

SOSI Factorized Families and Race

The Friedman test for differences in group mean rankings of racial groupings and the four sources of efficacy as measured by the SOSI indicated no significant differences. There were no significant differences in mastery experience (H = 4.794, df = 3, p = .188), vicarious experiences (H = 4.500, df = 3, p = .212), verbal persuasion (H = 4.712, df = 3, p = .194) or emotional/physiological states (H = 1.926, df = 3, p = .588) across racial groupings. This suggests that despite apparent numeric differences in group mean rankings of the four sources of self-efficacy across racial groupings, none were statistically significant.

SOSI Factorized Families and Education Level

The Friedman test for differences in group mean rankings of education level groupings and the four sources of efficacy indicated no significant differences. There were no significant differences found in education level groupings and mastery experiences ($H = 9.906$, df = 5, p = .078), vicarious experiences ($H = 9.055$, df = 5, p = .107), verbal persuasion ($H = 7.477$, df = 5, p = .188), or emotional/physiological states ($H = .860$, df = 5, p = .973). This suggests that despite apparent numeric differences in group mean rankings of education level and the four sources of efficacy, none were statistically significant.

SOSI Factorized Families and Discipline Area

The Friedman test for differences in group mean rankings of discipline area groups and the four sources of self-efficacy indicated no significant differences. There were no significant differences in mastery experiences ($H = 9.331$, df = 9, $p = .407$), vicarious experiences ($H = 11.742$, df = 9, $p = .228$), verbal persuasion ($H = 6.513$, df = 9, $p = .688$), or emotional/physiological states ($H = 12.488$, df = 9, $p = .187$) across discipline area groupings. This suggests that despite apparent numeric differences in group mean rankings of discipline area and the four sources of self-efficacy, as measured by the SOSI, none were statistically significant.

SOSI Factorized Families and Years of Teaching Experience

The Friedman test for differences in group mean rankings of years of teaching experience groupings and the four sources of efficacy as measured by the SOSI, indicated a significant difference. The Friedman test indicated no significant differences in teaching experience groupings on mastery experiences ($H = 7.550$, df = 4, $p = .110$), vicarious experiences ($H =$

8.483, df = 4, p = .075), verbal persuasion (H = 2.793, df = 4, p = .593, or emotional/physiological states (H = 6.536, df = 4, p = .163). This suggests that despite apparent numeric differences in group mean rankings of the four sources of efficacy, none were statistically significant.

SOSI Factorized Families and Years of Teaching in Special Setting

The Friedman test for differences in group mean rankings of years teaching experience with justice-involved juveniles groups and the four sources of self-efficacy indicated significant differences in emotional/physiological experiences (H = 13.459, df = 4, p = .009). In this area of the SOSI, respondents with 4-10 years of experience in the special setting (n = 30, H = 52.68) scored highest, followed by educators with 11-20 years of experience (n = 6, H = 47.67). The respondents with 1-3 years of specialized teaching experience (n = 42, H = 37.29) scored slightly higher than respondents with more than 20 years of specialized experience (n = 4, H = 33.13). Respondents with zero years of experience (n = 2, H = 2.50) ranked significantly lower than the other experience levels. There were no significant differences in mastery experiences (H = 6.018, df = 4, p = .198), vicarious experiences (H = 5.350, df = 4, p = .253), or Efficacy in Student Engagement (H = 1.333, df = 4, p = .856) across years of experience in special setting groupings. This suggests that despite apparent numeric differences in group mean rankings of years teaching experience with justice involved juveniles and the four sources of efficacy, only emotional/physiological states were statistically significant. Of the respondent groups, those with 4-10 years of specialized teaching experience ranked highest suggesting a high level of influence from emotional/physiological states.

SOSI Factorized Families and Teaching Assignment/Placement

The Friedman test for differences in group mean rankings of years of teaching experience groupings and the four sources of efficacy as measured by the SOSI, indicated no significant differences. There were no significant differences in group mean rankings on mastery experiences (H = 5.663, df = 4, p = .226), vicarious experiences (H = 3.637, df = 4, p = .457), verbal persuasion (H = 4.405, df = 4, p = .354) or emotional/physiological states (H = 4.697, df = 4, p = .320). This suggests that despite apparent numeric differences in group mean rankings of the four sources of efficacy and type of school setting, none were statistically significant.

SOSI Factorized Families and Age of Respondents' Students

The Friedman test for differences in group mean rankings of student age groupings and the four sources of efficacy indicated no significant differences. There were no significant differences in student age groupings on mastery experiences (H = 8.754, df = 5, p = .119), vicarious experiences (H = 6.599, df = 5, p = .252), verbal persuasion (H = .769, df = 5, p = .979), or emotional/physiological states (H = 5.637, df = 5, p = .343). This suggests that despite apparent numeric differences in group mean rankings of the four sources of efficacy and student age, none were statistically significant.

SOSI Factorized Families and Gender of Respondents' Students

To run the Friedman test for student gender and educator TSES scores I used the categories of male, female, and both. The Friedman test for differences in group mean rankings of student gender groupings and the four sources of self-efficacy indicated no significant differences in group mean rankings of gender and emotional/physiological states (H = 3.214, df = 2, p = .200). The Friedman test indicated a significant difference in subject area groupings on mastery experience rank scores (H = 10.964, df = 2, p = .004). Respondents who reported teaching both genders of students (n = 61, H = 46.58) ranked highest on mastery experience

scores. Teachers of female students only (n = 8, H = 27.94) ranked almost two points higher than those who reported teaching male only students (n = 13, H = 26.00). The Friedman test indicated significant differences in group mean rankings in gender and vicarious learning (H = 10.228, df = 2, p = .006). Educators who taught both genders (n = 62, H = 46.02) scored significantly higher than those of male only (n = 13, H = 31.42) and female only (n = 9, H = 24.44) students. The Friedman test for student gender and verbal persuasion (H = 6.952, df = 2, p = .031) showed significant differences in group mean rankings. Educators who taught both male and female students (n = 62, H = 46.02) scored significantly higher in verbal persuasion based on group mean rankings than either educators of male only (n = 12, H = 31.22) or female only (n = 9, H = 28.50) students. This suggests respondents teaching both genders ranked higher on mastery experiences, vicarious experiences, and verbal persuasion. There were no significant differences in emotional/physiological states.

SOSI Factorized Families and Content Area

To run the Friedman test for content area and TSES scores I used the categories of academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one (vocational/transition, social skills, health/PE, and life/community-based skills) and vocational/transition skills and social skills. The Friedman test for differences in group mean rankings of content area groupings and the four sources of efficacy indicated no significant differences in vicarious experiences (H = 11.051, df = 10, p = .354), verbal persuasion (H = 15.482, df = 10, p = .115), or emotional/physiological states (H = 6.615, df = 10, p = .761). However, the Friedman test indicated a significant difference in content area groupings and mastery experiences group mean rankings (H = 19.267, df = 10, p = .037). Respondents who reported teaching academic and vocational/transition skills (n = 7, H = 52.71)

and those teaching academics and social skills (n = 9, H = 52.28) ranked highest on mastery experiences. Ranked only slightly lower were respondents teaching academics and life skills (n = 1, H = 49.50) followed by educators teaching vocational/transition skills and social skills (n = 6, H = 48.08). Next ranked were educators who taught life skills/community-based skills (n = 4, H = 46.25), educators who taught academic and health Skills (n = 4, H = 45.63), and educators who taught only social skills (n = 7, H = 45.07). Falling within the lower ranked groupings, were educators who taught two or more nonacademic subjects (n = 9, H = 44.33) and those who taught single subjects. Respondents teaching health/Pe (n = 16, H = 42.34) scored about fifteen points higher than those teaching only academic subjects (n = 10, H = 26.90) and about 25 rank points higher than those teaching vocational/transition skills only (n = 8, H = 14.38). This suggests respondents teaching multiple subjects ranked higher on mastery experiences as sources of efficacy than did educators of single subjects based on group mean rankings. In contrast, educators teaching only academic skills or only vocational/transition skills appear to have experienced mastery experiences to a lesser extent based on differences in group mean rankings.

SOSI Factorized Families and Subject Area

To run the Friedman test for subject area and TSES scores I used the categories of science, mathematics, ELA, social studies/government/geography, mixed, all, or other. The Friedman test for differences in group mean rankings of subject area groupings and the four sources of self-efficacy, as measured by the SOSI, indicated non-significant differences in vicarious experiences (H = 12.109, df = 6, p = 0.60) and emotional/physiological states (H = 4.822, df = 6, p = .567). There were, however, significant differences in mastery experiences and subject areas (H =19.451, df = 6, p = .003). Respondents who reported teaching other (n = 2, H = 67.50) ranked highest on mastery experience group mean rankings. Ranked almost 18 points

lower were respondents teaching social studies/government/geography subjects (n = 11, *H* = 50.23). Educators teaching ELA subjects (n = 30, *H* = 47.38) were about three rank points lower, and teachers of all subjects (n = 12, *H* = 43.75) ranked about four points lower than that. Next ranked were educators reporting teaching mixed subjects (n = 7, *H* = 38.93). Those teaching mathematics only (n = 7, *H* = 21.36) and those who reported teaching Science (n = 12, *H* = 22.08) were ranked lowest on mastery experiences based on differences in group mean rankings. of all the subject area groupings. This suggests respondents teaching multiple subjects ranked higher on mastery experience scores than did educators of single subjects based on group mean rankings. In contrast, educators teaching only mathematics or only science appear to have gained less efficacy through mastery experiences than other subject areas based on differences in group mean rankings.

The Friedman test also indicated a significant difference in subject area and verbal persuasion (*H* = 22.584, df = 6, *p* = .001). Respondents who reported teaching other subjects (n = 2, *H* = 77.00) scored significantly higher than the remaining subject area groupings in group mean rankings. The respondents who taught social studies/government/geography (n =11, *H* = 61.82) were ranked about 15 points lower than those teaching other subjects. Educators teaching ELA subjects (n = 30, *H* = 45.15) and educators who reported teaching all subjects (n = 12, *H* = 38.33). Educators teaching a mix of subjects (n = 8, *H* = 31.38) and those teaching mathematics only (n = 6, *H* = 28.50) were ranked within three points of one another. Educators who taught only sciences (n = 12, *H* = 25.08) ranked lowest on verbal persuasion experiences. This suggests respondents teaching multiple content areas ranked higher on verbal persuasion experience scores than did educators of single content areas based on group mean rankings.

SOSI Factorized Families and Caseload Size

To run the Friedman test for case size and sources of self-efficacy, as measured by the SOSI, I used the categories of < 9, 9-15, 16-20, and > 20. The Friedman test for differences in group mean rankings of case size groups and mastery experiences ($H = 4.230$, df = 3, $p = .238$), vicarious experiences ($H = 6.813$, df = 3, $p = .078$), or emotional/physiological states ($H = 7.178$, df = 3, $p = .066$). However, there were significant differences detected in verbal persuasion scores and case size ($H = 8.908$, df = 3, $p = .031$). The verbal persuasion scores were split into two groups, the < 9 group (n = 14, $H = 54.32$) and the 16-20 students group (n = 16, $H = 50.47$), based on group mean rankings. The 9-15 group (n = 37, $H = 35.41$) and the >20 group (n = 16, $H = 38.00$). The rankings on verbal persuasion don't appear to follow a pattern.

SOSI Factorized Families and Instructional Setting

To run the Friedman test for class setting and the four sources of efficacy, I used the categories of one-to-one, small group, whole group, individual seatwork, and multiple modalities. The Friedman test for differences in group mean rankings of class setting groupings and sources of efficacy scores indicated no significant differences. There were no significant differences in mastery experiences ($H = 2.330$, df = 4, $p = .675$), vicarious experiences ($H = 2.944$, df = 4, $p = .567$), verbal persuasion ($H = 2.724$, df = 4, $p = .605$), or emotional/physiological states ($H = 2.399$, df = 4, $p = .663$). This suggests that despite apparent numeric differences in group mean rankings of class setting and the four sources of efficacy, none were statistically significant.

SOSI Factorized Families and Class Size

To run the Friedman test for class size and sources of efficacy, I used the categories of less than three, three to five, six to nine, 10-12, and more than 12. The Friedman test for differences in group mean rankings of case size groups and the three factorized families of the

TSES indicated no significant differences. There were no significant differences in mastery experiences (H = 2.076, df = 4, p = .722), vicarious experiences (H = 8.033, df = 4, p = .090), or verbal persuasion (H = 3.447, df = 4, p = .486) across class size groupings. There were, however, significances in emotional/physiological states (H = 13.822, df = 4, p = .008). Within the emotional/physiological states group mean rankings, educators of 10-12 students (n = 20, H = 59.05) were ranked highest followed by >12 students (n = 12, H = 43.17). Educators with 3-5 students per class (n = 20, H = 38.48) fell at the median of rankings. Educators with 6-9 students (n = 29, H = 35.38) were next in rank and about ten points higher than educators with less than three students per class (n = 3, H = 25.17). This suggests that there were no significant differences in group mean rankings of class size and mastery experiences, vicarious experiences, or verbal persuasion. There were significant differences in emotional/physiological states, with teachers having larger class sizes scoring higher than those with smaller classes based on the group mean rankings.

SOSI Factorized Families and Setting-Specific Training

To run the Friedman test for professional development and educator TSES scores I used the categories of none, employment, university, on own, university and employment professional development, university and on own, or employment and on own. The Friedman test for differences in group mean rankings of case size groups and the three factorized families of the TSES indicated no significant differences. There were no significant differences in Efficacy in Classroom Management (H = 6.693, df = 6, p = .324), Efficacy in Instructional Strategies (H = 7.823, df = 6, p = .251), or Efficacy in Student Engagement (H = 7.674, df = 6, p = .263) across professional development groupings. This suggests that despite apparent numeric differences in group mean rankings of professional development groupings and the TSES factorized families,

none were statistically significant. The Friedman test for the four sources of self-efficacy and gender indicated no significant differences in mastery experiences or vicarious learning experiences based on group mean rankings. There were significant differences found on verbal persuasion scores with other genders scoring highest, followed by educators who identified as female. Both male and female respondents felt emotional/physiological states had a significant impact on their feelings of efficacy, more so than those of other genders.

The Friedman test for the four sources of self-efficacy and experience teaching justice-involved juveniles indicated a significant difference between groups. The only source with significant differences was emotional/physiological experiences. Respondents with 4-10 or 11-20 years of specialized experience scored highest. Those with 1-3 years of specialized experience ranked next followed by respondents with more than 20 years of specialized teaching experience.

The Friedman test for the four sources of self-efficacy and content area indicated significant differences between group mean rankings only on mastery experiences. Educators teaching multiple content areas ranked higher on mastery experiences than did educators of single-content areas. Educators teaching only academic skills or only vocational/transition skills had the lowest scores based on group mean rankings.

The Friedman test for the four sources of self-efficacy and subject area indicated significant differences between group mean rankings only on mastery experiences. Educators teaching multiple subjects ranked higher on mastery experiences than did educators of single subjects. Educators teaching only mathematics or only sciences had the lowest scores based on group mean rankings. The Friedman test also indicated significant differences on subject area and verbal persuasion scores. Respondents teaching multiple subject areas ranked higher on

verbal persuasion scores than did educators of single-subject areas based on group mean rankings.

The Friedman test between the four sources of efficacy and student gender indicated significant differences in group mean rankings. Results suggest respondents teaching both genders rank higher on group mean rankings on mastery experiences, vicarious experiences, and verbal persuasion. In contrast educators of female-only students ranked higher on mastery experience, whereas males scored higher on vicarious experiences and verbal persuasion based on group mean rankings.

The Friedman test for the four sources of efficacy and case size indicated a significant difference in group mean rankings only on verbal persuasion. There was no detectable pattern among the rankings with educators with less than nine students scoring highest and educators with 16-20 students on their caseload were ranked second. In contrast, the 9-15 group and the more than 20 group both scored significantly lower based on group mean rankings.

The Friedman test for the four sources of self-efficacy and class size indicated a significant difference in group means. The only source with a significant difference in group rankings was emotional/physiological states. In general, teachers having larger class sizes (10-12, or more than 12 students) scored higher than those with smaller classes (1-3 or 6-9) based on group mean rankings.

There were no significant differences on the Friedman tests between the four sources of efficacy and group mean rankings on age, race, education level, discipline area, years of teaching experience, teaching setting, student age, instructional mode, or types of professional development.

Discussion of Qualitative Data Analysis

In this section, I present the results of the qualitative phase of the study which consisted of individual interviews. As previously mentioned, I am interested in exploring participant perceptions of their teacher self-efficacy and the factors that have influenced their competencies. The explanatory sequential design is not intended to confirm or disaffirm theory or a hypothesis. Instead, it enables the researcher to deeply examine perceptions of individuals from a specified population. In this way, I wanted to delve into the sources of self-efficacy in highly efficacious educators of justice-involved juveniles. Following the strategy previously described in the participant section, I selected educators who scored high on TSE and at least one source of efficacy as measured by the SOSI from the pool of survey participants. I interviewed willing participants about their feelings of efficacy in working with the high-needs population of justice-involved juveniles. Using a semi-structured interview, I gathered data on the experiences of educators of justice-involved juveniles and how they gained their proficiencies. Each of the interviews were video recorded via Zoom and transcribed for analysis. The protocol for the semi-structured interview can be seen in Appendix A.8.

Whole Group Analyses

Demographic Characteristics

Table 14 provides interview participants' responses in 17 of the 18 (excluding state as current state of employment does not necessarily represent the same state the respondent received training) demographic characteristics from the survey. From the pool of 88 survey respondents, I sought eight participants willing to be interviewed. I chose eight participants because I intended to have two respondents from each of the four sources of efficacy so I could really delve into those sources and what made one better or worse. However, in reviewing the data I realized many of the participants who scored high in one source of efficacy also scored

high in one or more of the other sources of efficacy. Additionally, I had difficulty finding survey respondents who scored high in the sources of efficacy who were willing to be interviewed. I stopped contacting participants for interviewing when I reached the half-way point of scores (e.g., Case #44) because at that point I was no longer contacting participants who had high efficacy in comparison to other participants in this group. In the end I had five participants.

Table 14

Interview Participant Characteristics

Interview	Emily	Heather	Jennifer	Ryan	Sarah
Gender	Female	Female	Female	Male	Female
Age	41-50	51-60	31-40	31-40	31-40
Ethnicity	Not Hispanic or Latino	Not Hispanic or Latino	Not Hispanic or Latino	Not Hispanic or Latino	Not Hispanic or Latino
Race	White	White	White	White	White
Education Level	Master's Degree	Master's Degree	Bachelor's Degree	Master's Degree	Bachelor's Degree
Discipline	Education, Special Education	Special Education	Education, Social Work	Education, Special Education, Communications	Computer Information
Years Teaching	11-20	More than 20	4-10	11-20	4-10
Years Teaching Special Setting	4-10	4-10	1-3	1-3	4-10
Teaching Setting	Alternative School	Alternative School	Juvenile Minimum-Security	Day Treatment Facility	Juvenile Minimum-Security

Content Area	Academic, Social Skills Instruction	Academic Skills, Social Skills, Functional Life Skills/Community-Based Instruction	Vocational/Transition, Social Skills, Functional Life Skills/Community-Based Instruction	Academic, Health/Physical Education	Vocational/Transition, Social Skills Instruction
Subject Area	Reading, Writing, Language Arts, Mathematics, Science, Social Studies, Government, Geography	Reading, Writing, Language Arts	Job and Life Skills for adulthood and workforce	Reading and Math	Digital Literacy
Student Age	10-11 years; 12-17 years	12-17 years,18 years and older	12-17 years	10-11 year-olds; 12-17 year-olds	12-17 years
Student Gender	Both	Both	Male	Both	Male
Case Size	< 9	9-15	16-20	20<	< 9
Instruct. Setting	Small Group Instruction	Whole Group Instruction	Individual seatwork	Small group, Whole Group, Individual Seatwork	Small Group Instruction
Class Size	6-9	3-5	6-9	6-9	< 3
Setting-Specific Training	Employment-Related	None	None	Yes, through NAEA	Employment-Related and Education Training

The qualitative sample consisted of one male and four females. All participants were white and Not Hispanic. Three respondents were aged 31-40, one was 41-50, and one was 51-60 years old. Three respondents reported having a master's degree and two reported a bachelor's degree. Three respondents had backgrounds in special education, with two of these also having

experience in general education. One respondent had no formal background in education. Three interview participants were veteran teachers (e.g., having more than ten years of classroom teaching experience) and two were intermediate teachers (e.g., having between 4-10 years teaching experience). All five were comparatively new to education of justice-involved juveniles. Three would be considered intermediate teachers in this setting, while two would be considered novice teachers. All five respondents had experiences working with justice-involved juveniles in low-security settings (e.g., day treatment, juvenile minimum security, or alternative school). All five reported teaching multiple content areas (e.g., academic, vocational/transition, social skills, health/PE, life skills/community-based skills, two or more non-academic, and academic plus one [vocational/transition, social skills, health/PE, and life/community-based skills]). All five participants had students ages 12-17, with one additionally teaching juveniles 18 and older, and two also teaching 10-11 year old students. None of the interview participants taught female only students. Three reported teaching both genders, while two taught male only students. Case size varied from having less than nine total students (two participants) to being responsible for more than 20 students (one participant). Class sizes were relatively small with three participants reporting having six to nine students per class, one reporting having three to five students, and one participant who reported having less than three students per class period. Class setting varied across participants. Two respondents reported primarily using small group instruction. One participant reported using individual seatwork. One participant reported using whole group instruction. One participant reported using a combination of small group, whole group, and individual seatwork. Two participants reported having no juvenile justice-specific professional development. One reported receiving employment-related professional development and one reported gaining professional development experience through a national professional

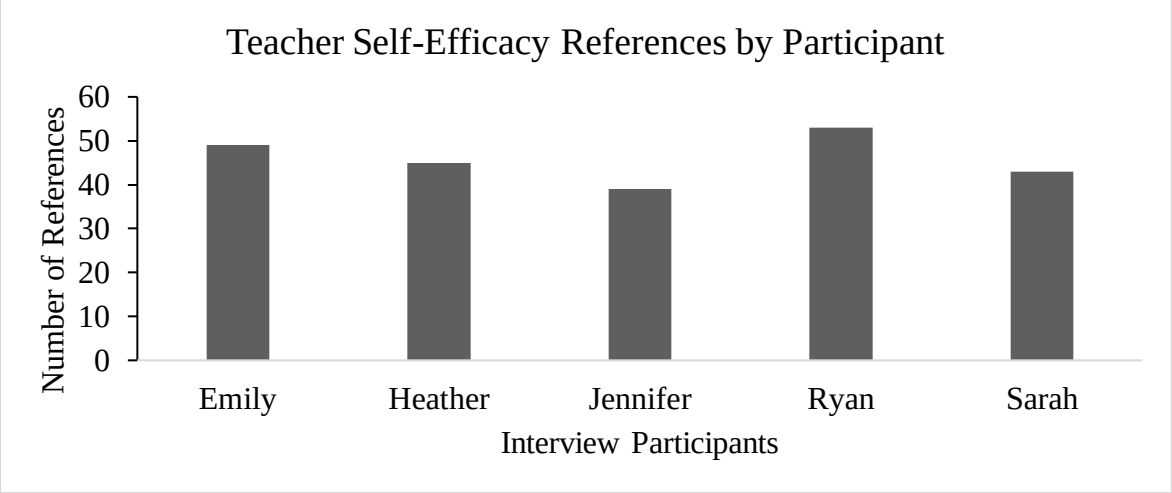
organization. One respondent reported having received juvenile-justice specific professional development through education training and employment related training.

Whole Group Teacher Self-Efficacy Interview Responses

Teacher Self-Efficacy as measured by the Teacher Sense of Self-Efficacy is broken into three components: Efficacy in Classroom Management, Efficacy in Instruction Strategies, and Efficacy in Student Engagement. To maintain a degree of continuity which would allow for triangulation of data, I chose to code the transcripts based on these three areas. A total of 229 references were made in reference to Teacher Self-Efficacy. References made to TSE within transcripts ranged from 53 references to 39 references. The average number of references made about TSE by interview participants was 45.8 with a median of 45. See Figure 24 for a bar chart of total references made by each participant regarding TSE.

Figure 24

Teacher Self-Efficacy References by Participant

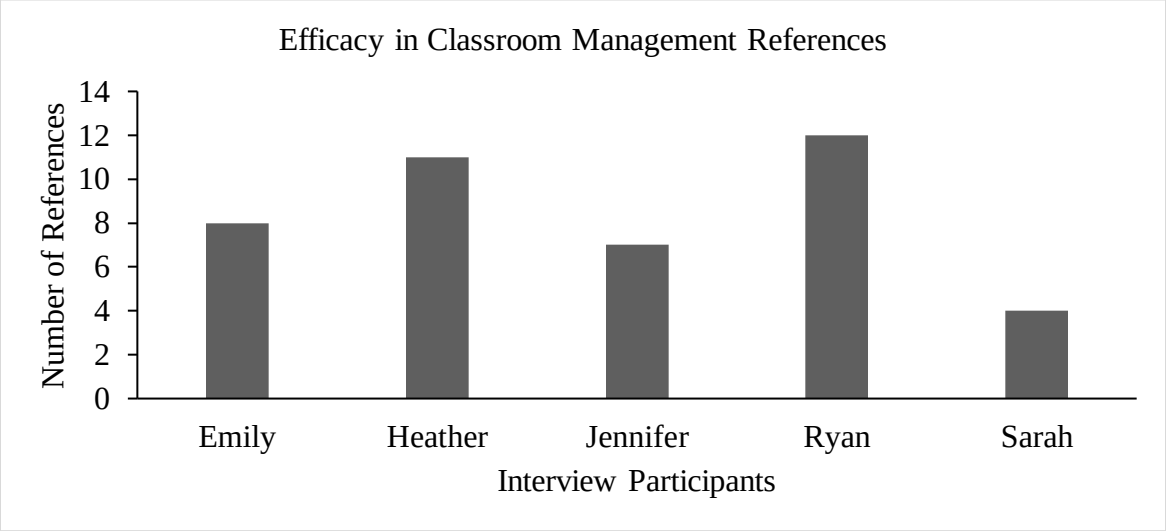


A total of 42 references were made regarding classroom management. Efficacy in Classroom Management references made by respondents ranged from four to 12 with the

average being around eight references ($\bar{x}$ = 8.4; median = 8). See Figure 25 for a bar chart of total references made by each participant regarding Efficacy in Classroom Management.

Figure 25

Efficacy in Classroom Management References



Child codes of Efficacy in Classroom Management consisted of "culture" and "structure." Culture referred to statements in relation to the environment the teacher tried to produce. For the most part, these educators strove to provide a safe environment for students to learn and grow. For instance, Heather said, "I prepared the classrooms in a setting that was warm and welcoming versus sterile and institutional." She further described her classroom as being "much more relaxed so that students could feel, like a sense of safety and relaxation and not be tense." Three of the interviewees remarked on the difficulty involved with providing this particular population of students with the support they need educationally, as well as emotionally. Emily stated, "Um, so there's always a balance of like, do I wanna really focus more on [social emotional and trauma], or [educationally]. Really, they're in the school setting. So it was always conflict of what to do." Despite this difficulty, these educators attempted to meet the students where they were at, providing the supports needed for each student which

further varied on a day-to-day basis. Heather stated, “I realized that there may be days where absolutely no learning occurs curriculum-wise, but you’re going to get a lot out of them emotionally.” Overall, these educators recognized the importance of providing balanced support to this group of students. Further, they understand learning cannot occur until emotional needs are met.

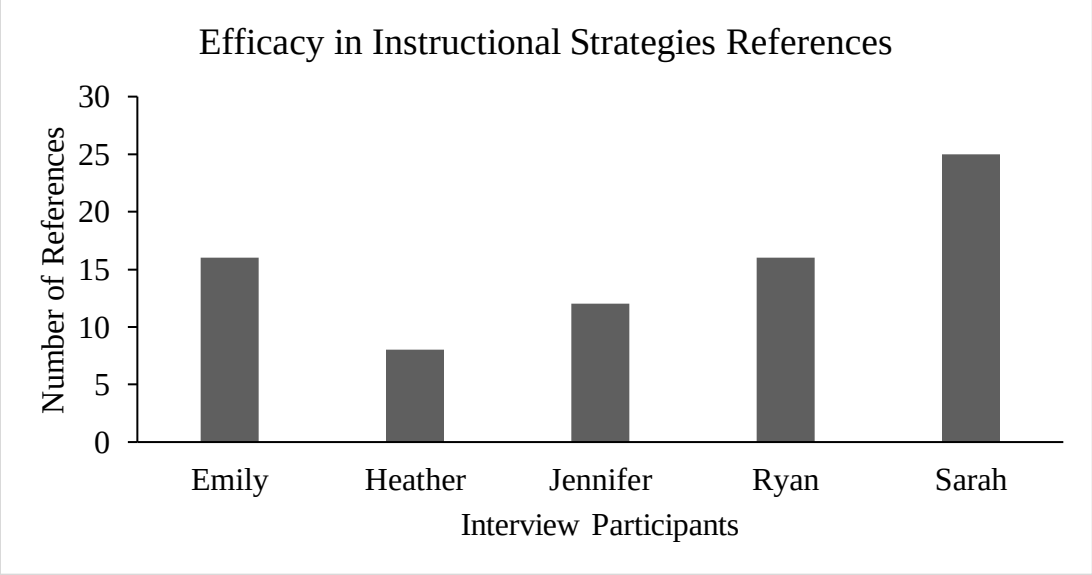
The code “structure” was used to group statements about classroom organization and discipline. All five participants made references to the structure of their class, suggesting the importance of a highly structured environment for this group of students. Further, these educators appeared to have high feelings of efficacy in providing a highly structured environment. Emily stated, “… kids that are in that situation really need defined procedures and rules and because they don't have a lot of that… outside of the school settings that make them feel very safe. So, I try to just focus on procedures, so I felt very comfortable with that part of it.” Ryan supported the concept of a highly structured environment, “We have a clear set of expectations. And I’m very up front with those expectations with them coming in. And nine out of 10 times they meet expectations.” He elaborated saying, “They need a little bit of structure and some expectations and somebody to believe in them and hold them to those expectations. And that’s all they need.” See Appendix C.1. and C.2. respectively for bar charts of references to classroom management culture and structure results.

A total of 77 references were made regarding instructional strategies. Efficacy in Instructional Strategies references made by respondents ranged from 25 to eight per interview (about twice the responses of classroom management) with the average being around fifteen references ($\bar{x}$ = 15.4; median = 16). See Figure 26 for a bar chart of total references made by each participant regarding Efficacy in Instructional Strategies. Efficacy for Instructional

Strategies was further broken down into those codes referring to knowledge of "content" and those referring to "teaching strategies or techniques." These participants indicated high feelings of efficacy in instructional strategies, which appears to have occurred through a variety of experiences. Ryan suggested the development of content knowledge occurred over the first few years of his teaching experiences. He stated "I felt like I was an awful teacher the first three years and I finally figured it out around year four. And a lot of that goes back to being unaware of certain standards, you know, state standards." Both Sarah and Jennifer spoke of the importance of mentoring and observation opportunities in developing their own efficacy in content. Jennifer stated, "I have to make sure that it doesn't go above one's head, or go down too much for the others. And [mentors] have helped me a lot with that, too. So, I'm learning skills that help me … get the content across." Emily indicated observing other educators helped her know what not to do. "Some of the teachers would talk above the students' heads. And that's definitely something that I knew I didn't want to do because the students would come back with

Figure 26

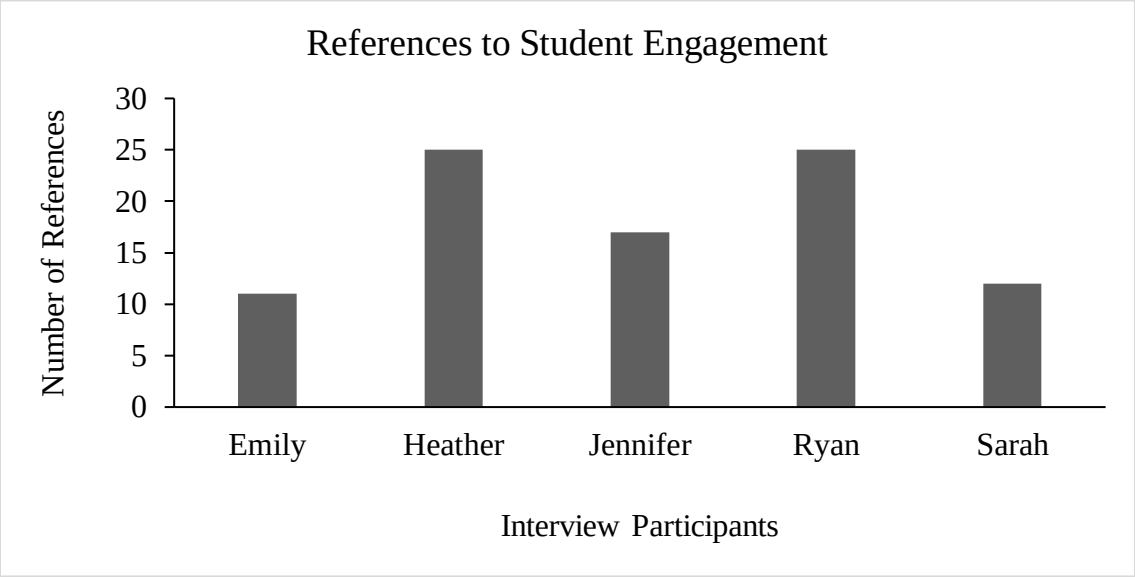
Efficacy in Instructional Strategies References



In addition to content knowledge, several of the interview participants discussed feelings of efficacy in regard to teaching strategies and techniques. These were most often related to specialized instruction for groups or individuals. For instance, Emily remarked on the importance of "finding different ways to make kids feel successful." Heather also supported thinking outside the box when working with justice-involved juveniles. She said, "I did a lot of fun activities with them, so I could see what skill sets they had…We did a lot of game-playing and a lot of talking, and a lot of moving around… but it was more of me kind of gauging what their interests were." References to efficacy in teaching strategies ranged from seven to two ($\bar{x}$ = 4.2, median = 4). See Appendix C. 3. for a bar chart of references to efficacy in teaching content by participant.

Of 99 references about Efficacy in Student Engagement, references by individual respondents ranged from ten to six with the average being around eight references ($\bar{x}$ = 8.6; median = 9). See Figure 27 for a bar chart of total references made by each participant regarding Efficacy in Student Engagement. Unlike the other two components of TSE, there was only one category that emerged from references made to Efficacy in Student Engagement. These referred to working with special populations in a variety of environments, including within special education cooperatives and facilities for justice-involved juveniles. Jennifer said, "I wasn't prepared at all for the variety of capabilities, the variety of issues, and trauma-informed care [needs]." Jennifer was not the only participant to recognize the emotional needs of this population. Heather stated, "Before we even hit academics…I built relationships with kids because you weren't going to get anything out of them." Ryan elaborated further saying, "You have to approach them differently…you gotta meet them where they're at…what are they going through? Where are they coming from? And that's going to help us approach them differently."

Figure 27 *Efficacy in Student Engagement References*

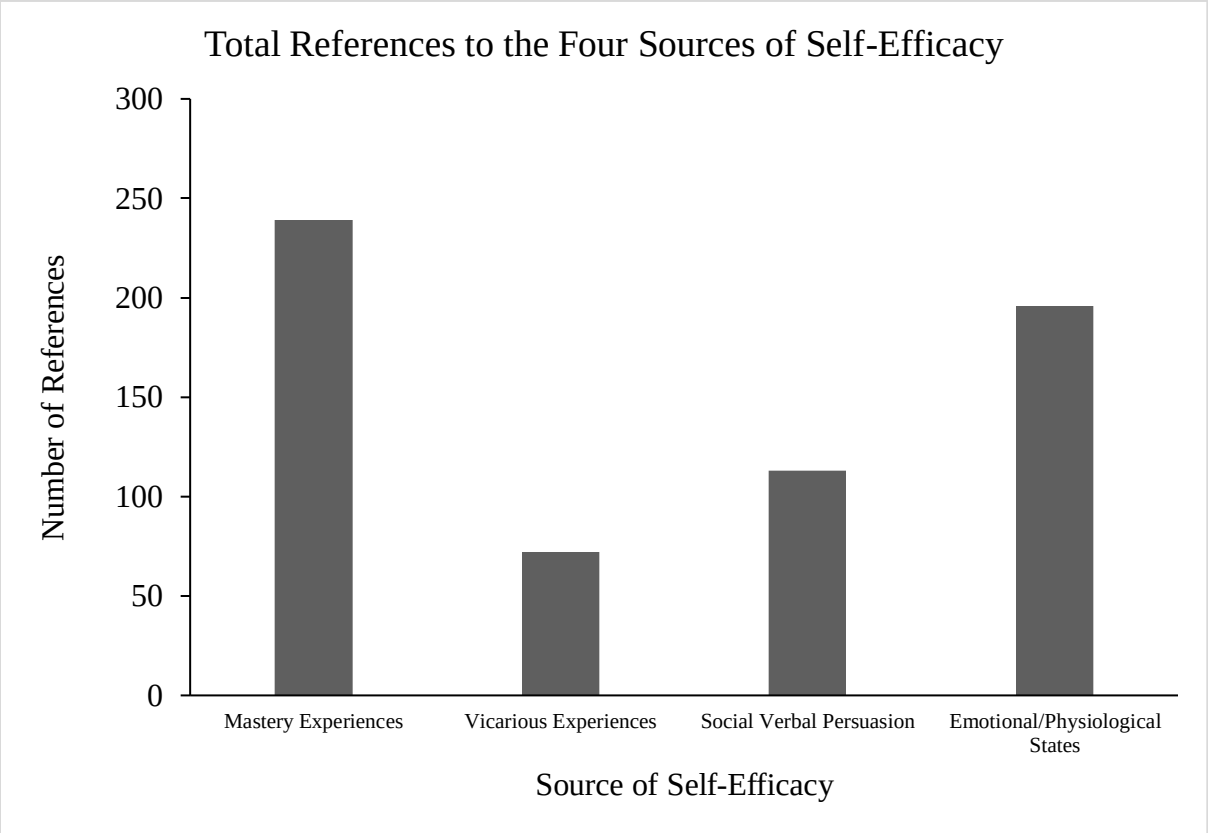


Whole Group Sources of Self-Efficacy Responses

Bandura proposed that self-efficacy is gained through four sources: mastery experiences, vicarious learning experiences, social and verbal persuasion and emotional/physiological states (Bandura, 1997). To maintain a degree of continuity which would allow for triangulation of data, I chose to code the transcripts based on these four sources. A total of 620 references were identified across the five transcripts that referred to at least one source of efficacy. References to mastery experiences occurred most frequently (n = 239 references); seconded by emotional/physiological states (n = 196). Vicarious learning (n = 72) and verbal persuasion (113) had considerably fewer references. See Figure 28 for a bar chart of total references to at least one of the four sources of efficacy references. References made to sources of self-efficacy within interview transcripts ranged from 470 references (Ryan) to 351 references (Sarah). The average number of references made about sources of self-efficacy by interview participants was 411.2 with a median of 412. See Figure 28 for a bar chart of total references made by each participant regarding sources of efficacy.

Figure 28

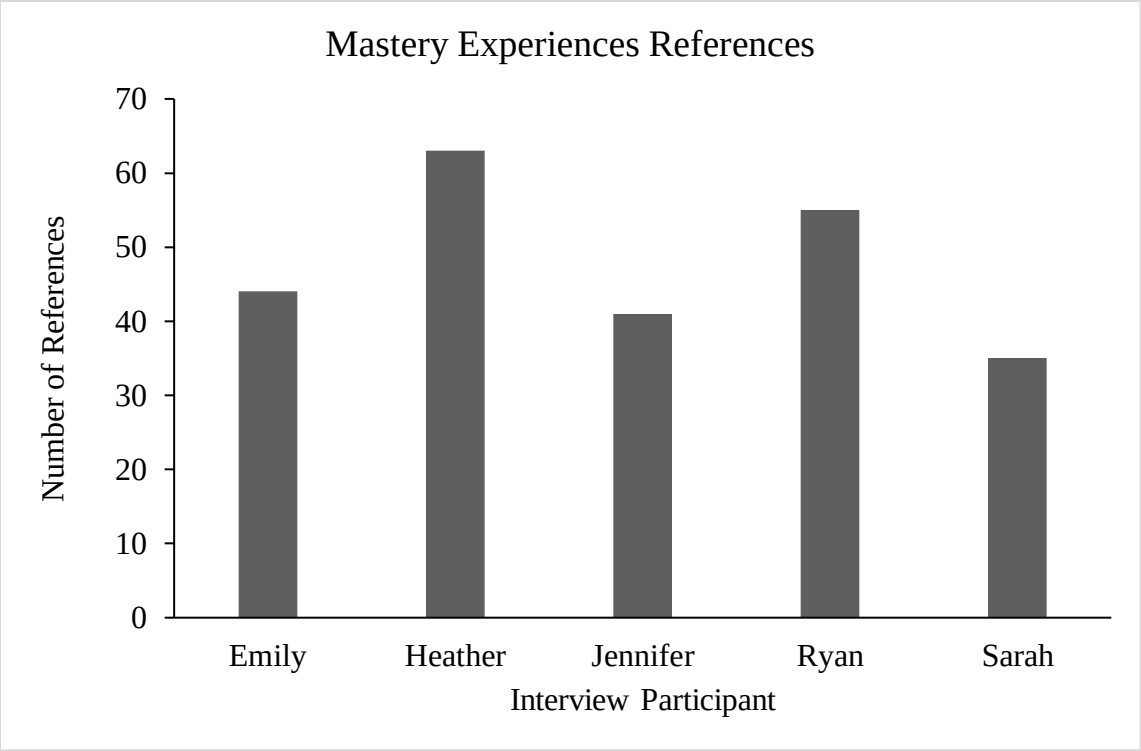
Sources of Efficacy References



References to Mastery Experiences. Bandura proposed that mastery experiences may be the most influential of the four sources of efficacy (Bandura, 1997). Mastery experiences refer to situations in which a person successfully completes a challenging task or overcomes a difficulty (Bandura, 1977, 1986). There was a total of 239 codes related to mastery experiences. References to mastery learning experiences made by respondents ranged from 63 to 35 per interview (with the average being around fifteen references ($\bar{x}$ = 15.4; median = 16). See Figure 29 for a bar chart of total references made by each participant regarding mastery experiences.

Figure 29

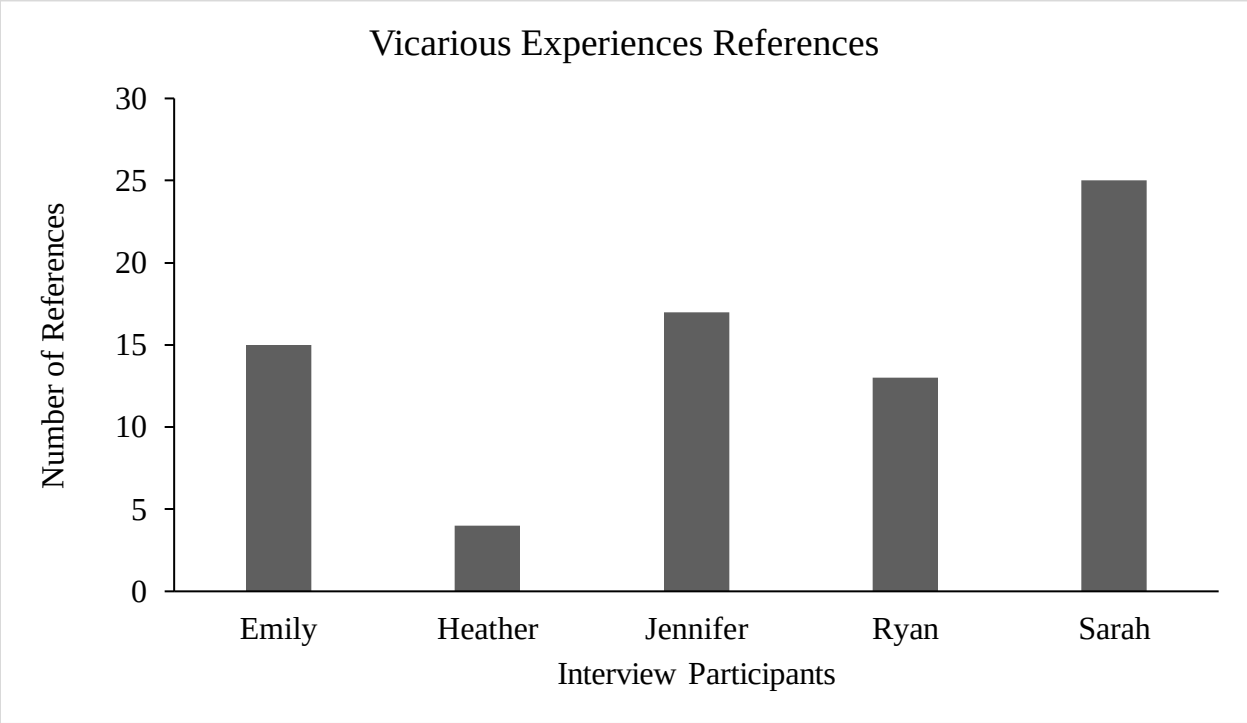
Mastery Experiences References



Three major themes found in mastery experiences were those references referring to past life experiences, past teaching experiences, and juvenile-justice specific experiences. Of the 239 mastery experience references, 18 related to past life experiences, 51 related to past teaching experiences and 43 of these related to juvenile justice-specific experiences.

References to Vicarious Experiences. Vicarious experiences refer to the process by which individuals can learn by observing another person's actions, understanding their success or failure, and then imagining themselves taking the appropriate course of action (Bandura, 1977, 1986, 1997). References to vicarious learning experiences made by respondents ranged from 25 to four per interview with the average being around 14 references ($\bar{x}$ = 14.4; median = 15). See Figure 30 for a bar chart of total references made by each participant regarding experiences with vicarious learning.

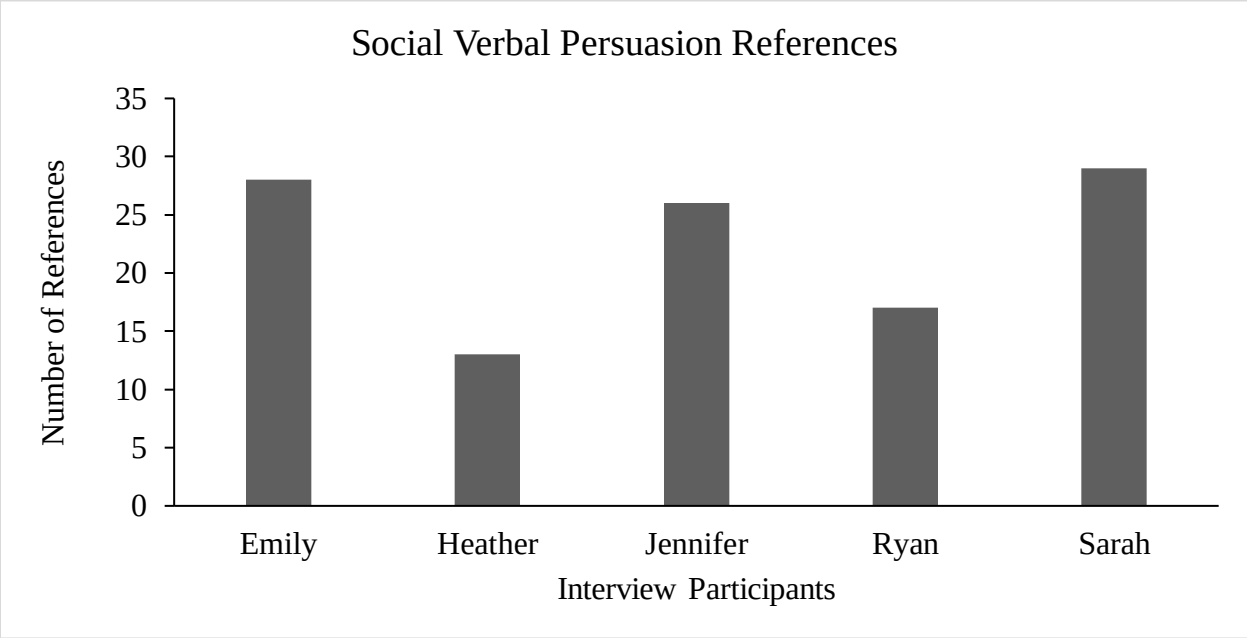
Figure 30 *Vicarious Experiences References*



Within vicarious experiences, three major themes emerged. These were experiences respondents had via formal classes or coursework (n = 9), literature (e.g., books, movies; n = 3), or observations (n = 16).

References to Verbal Persuasion. Verbal persuasion experiences refer to verbal or physical communication and encouragement from significant others (Bandura, 1977, 1986, 1997). A total of 113 references were made related to verbal persuasion. References to verbal persuasion experiences made by respondents ranged from 29 to 13 per interview with the average being around 22 references ($\bar{x}$ = 22.6; median = 26). See Figure 31 for a bar chart of total references made by each participant regarding experiences with verbal persuasion experiences.

Figure 31 *Verbal Persuasion References*

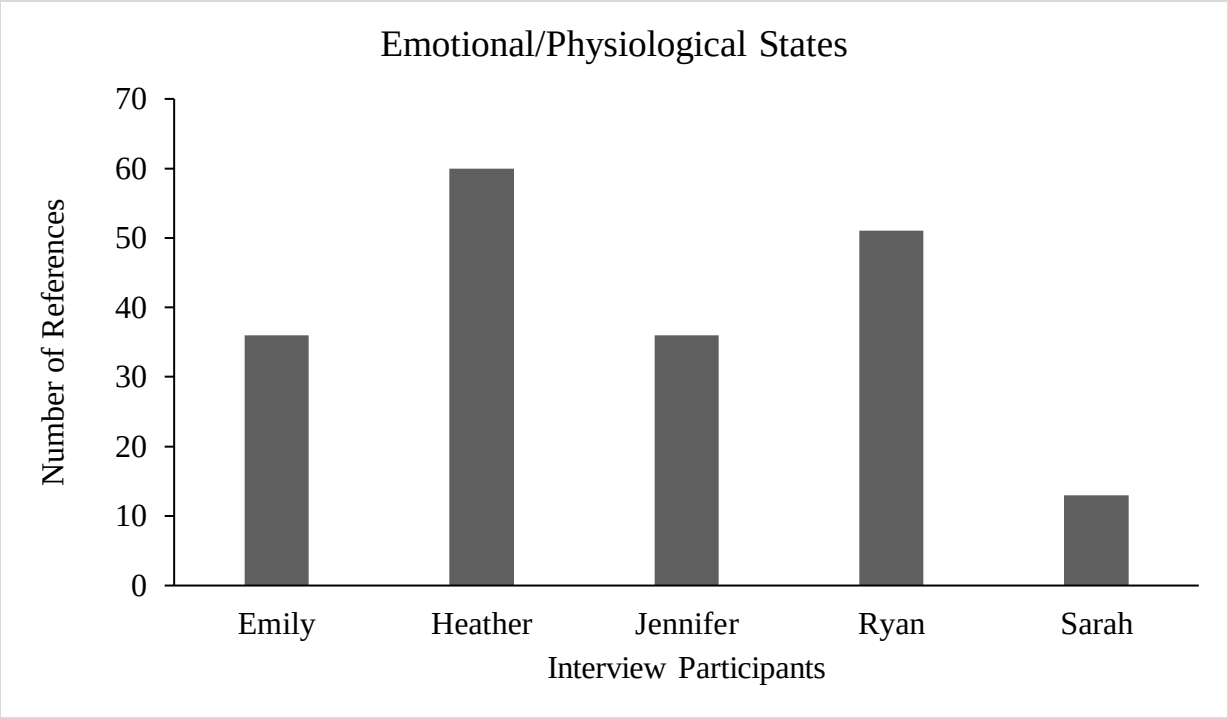


Within verbal persuasion, four major themes emerged. These were supportive or non-supportive experiences of respondents in relation to friend and family support (n = 8), work-related support (n =23), student support (n = 9), and societal expectations (n =8).

References to Emotional/Physiological States. Emotional/physiological states refer to the feelings and emotions experienced by educators during teaching activities (Bandura, 1977, 1986). Physiological states refer to the physical sensations or reactions teachers experience while teaching. Physiological states include increased heart rate, sweating, muscle tension, or feelings of calmness and relaxation (Bandura, 1977, 1986). There was a total of 196 references related to emotional/physiological states. References to emotional/physiological states that were made by respondents ranged from 60 to 13 per interview with the average being around 39 references ($\bar{x}$ = 39.2; median = 36). See Figure 32 for a bar chart of total references made by each participant regarding experiences with emotional/physiological states and efficacy.

Figure 32

Emotional/Physiological States References



Within emotional/physiological states, three major themes emerged. These were: positive feelings (n= 44), negative feelings (n = 20) and personality traits (n = 30).

Single Participant Results

Emily

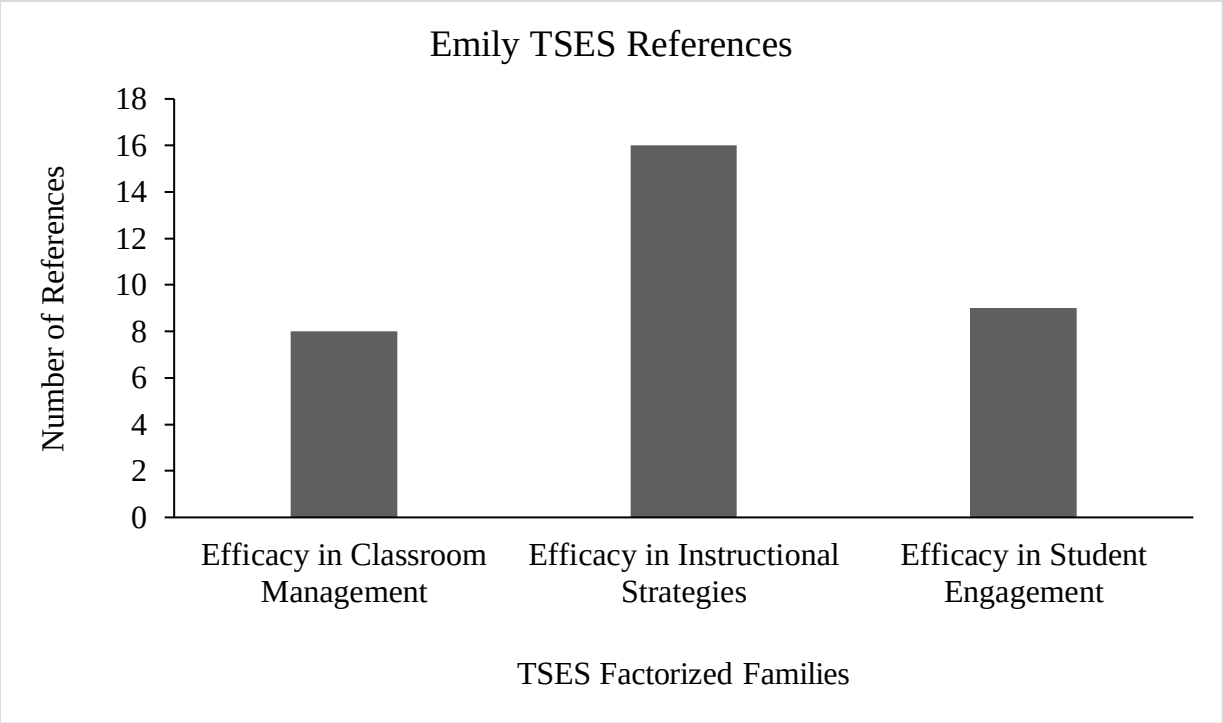
Demographic Characteristics. Emily is a white, not Hispanic or Latino female between the ages of 41-50. She reported a master's degree as her highest level of education with her background being in education and special education. Emily has between 11-20 years of teaching experience with eight of those being in an alternative school setting which supported justice-involved juveniles. Emily is not currently working at a facility catering to juveniles who are involved with the justice system, but indicates she continues to work with this population primarily through probation reports and inquiries. She stated she would have happily continued working in the setting for justice-involved juveniles had she not moved to a new state. Emily

indicated her primary experience with justice-involved juveniles occurred while working at a special education co-op serving 20 school districts across nine counties. She primarily teaches academics (ELA, mathematics, sciences, and social studies/government/geography or social skills. Her students consist of both genders from 10-17 years of age. She has a caseload of less than nine students and generally has between six and nine students per class period. Emily reported receiving employment-related professional development that was justice-involved juvenile specific.

Teacher Self-Efficacy. Results from the online survey indicate Emily scores highly on the TSES. There are eight items on the TSES that fall under each factorized category (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement). I used a five-point Likert-type scale, therefore the highest possible score on these factorized scores is 40. Emily scored a 36 on classroom management and was ranked at #6 of 88 cases. She scored slightly lower, but still within the top 75% of respondents, on instructional strategies (33 of 40 possible; #12 of 88 cases) and student engagement (33 of 40 possible; #21 of 88 cases). When considering references to the TSES factorized families from her interview, Emily made the most references to instructional strategies (n = 16), seconded by Efficacy in Student Engagement (n = 9). She made the least references to Efficacy in Classroom Management, a direct contradiction to her scores on the TSES questionnaire, where she scored highest in classroom management. See Figure 33 for a bar chart demonstrating Emily's TSES factorized scores.

Figure 33

Emily's References to TSES



Despite the differences in survey and interview references, within her discussion, she indicated a strong focus on creating a classroom setting with well-set procedures. "…so, kids that are in that situation [justice-involved facility] really need defined procedures and rules and because they don't have a lot of that…outside of the school settings so that makes them feel very safe." See Appendix C.6. for a chart of Emily's references to classroom management within her interview. She more frequently made references to the structure of her classroom (n = 3) rather than in regard to the climate she attempted to create (n = 1).

Within the realm of instructional strategies, Emily discussed the importance of meeting the needs of this special population of juveniles considering both academic and emotional needs in which she said, "It was always a balancing act…a balance of like, do I wanna really focus more on that [social emotional needs], or really, they're in the school setting. So, it was always a

conflict of what to do." She also discussed a lack of instructional materials despite being a part of a special education co-op which she considered should have had better resources as a compilations of district resources. She indicated this lack of materials caused feelings of discomfort in her ability to provide instruction. "I try to focus on procedures, so I felt very comfortable with that part of it. Not as comfortable with having access to a curriculum. Even though it was a special ed co-op, umm, they kind of had the hand-me-downs of a lot of things. A scatter of pieces here and there. So educationally, a little uncertain." Emily made more references to her efficacy in developing and teaching content (n = 6) rather than on teaching techniques or strategies (n = 2). See Appendix C.7. for a bar chart of Emily's results for Efficacy in Instructional Strategies.

Emily's perceptions of her ability to engage students is reflected in high scores on the TSES questionnaire and the references she made during the interview. Emily made 11 references to her ability to engage students from special populations, with a focus on knowing the backgrounds of the students and developing relationships with them. She also discussed the importance of relationships with outside stakeholders to provide whole-child services. "You know, you're gonna be dealing with students that have emotional problems, real problems that need counseling, that need, you know, food and clothing…So who can you connect with? Maybe you don't have the resources, but maybe your community does. You know, who can help facilitate that?" See Appendix C.8. for a bar chart of references Emily made in regard to student engagement.

When asked what she would recommend for educator preparation for working with justice-involved juveniles, she made two suggestions. The first was the importance of taking care of one's self where Emily cited issues teachers everywhere are facing from what she calls the

"loneliness epidemic." This includes situations with increasingly younger and younger students who are in such severe crisis they are considering suicide, or students who are socially isolated because of their reliance on cellphone and social media interaction rather than interaction with live beings. She stated, "I'd highly recommend individual counseling…being willing to participate, work on things yourself. And it's a process and knowing that. Um…cause if you're not emotionally whole, there's no way you're gonna be able to handle the weight of it all." Emily's second recommendation was for new educators to try and make informed decisions about students, situations, and programs rather relying on "lunchroom gossip."

Sources of Efficacy. Results from the online survey indicate Emily scored within the top 75% on three of the four sources of efficacy. I used the SOSI to identify sources of efficacy as based on Bandura's theory of self-efficacy. As measured by the SOSI, these are mastery experience (nine items), vicarious experience (nine items), verbal persuasion (10 items), and emotional/physiological states (seven items). As with the TSES I used a five-point Likert-type scale. Therefore, the highest possible scores would be 45 for mastery experiences and vicarious experiences. The highest score for emotional/physiological states would be 35. The highest possible score for verbal persuasion would be 50. Emily scored the highest in mastery experiences (45) and was ranked 1st of 88 cases. Emily scored slightly lower on vicarious experiences with a score of 41 and ranking of #5. She scored considerably lower on verbal persuasion (42; rank #21), and even lower on emotional/physiological states (17; rank #75 of 88).

When considering references to the four sources of self-efficacy from her interview, Emily made the most references to mastery experiences (n = 45), which is in-line with her mastery experience score on the SOSI questionnaire. In contrast to the lower score on

emotional/physiological state as measured by the SOSI, it was Emily's second highest interview reference category concerning sources of self-efficacy (n = 36). Her scores on verbal persuasion references (n = 28) and vicarious learning (n = 15) align with the order of scores on the SOSI for these factors. See Figure 34 for a bar chart demonstrating Emily's source of self-efficacy scores as measured by references made during the interview.

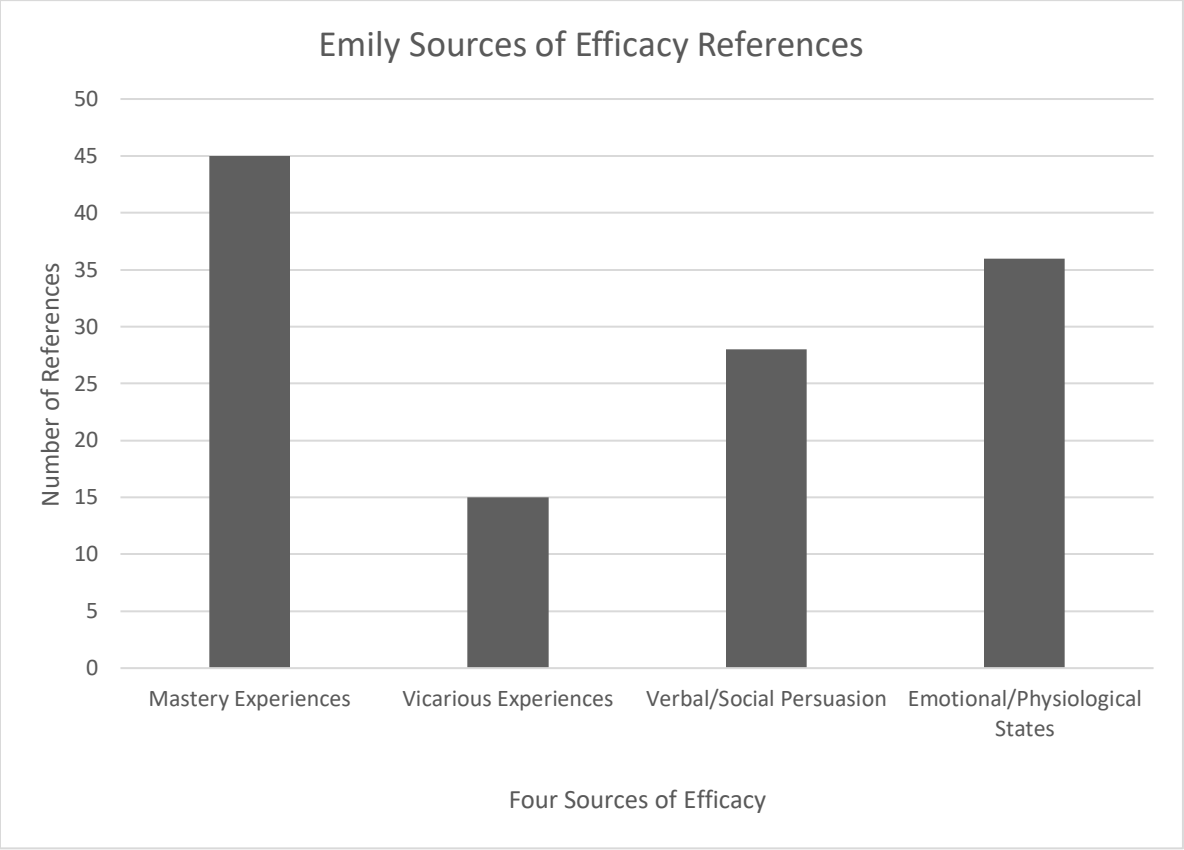
Of the three themes that emerged during analysis of mastery experience references (e.g., past teaching experiences, juvenile justice experience, and past life experiences), Emily most often referenced past teaching experiences (n = 12) and referenced experiences with justice-involved juveniles about half as often (n = 6). Emily's references to mastery experiences related to teaching special populations included primarily juveniles involved with the justice system and youth with disabilities (e.g., learning disabilities, emotional disabilities, other health impaired).

Emily also made several references (n = 5) to past life experiences that had influenced her ability to teach this special population of students. In particular she spoke of having experienced significant mental and verbal abuse while growing up, a situation which allowed her to develop a skill in being able to "read the room." She stated, "…from a very young age I learned kinda how to not make the…rock the boat. How to, kind of please. How to um, when you're in that situation you learn to read signals very early and very quickly. And so, I feel like, even though I wouldn't want anybody to have to have that skill, it's a skill you can use. And especially in that setting." It appeared that this skill allowed Emily to meet the students where they were academically and acknowledge the trauma, they had experienced. She indicated making connections with students was vital, saying, "That's because we get it. We're gonna cut to the chase. We're not gonna expect all these things that are fluff. You know, we're not going to

say, “Hey, you have a great home,” because, you know, a lot of them don’t.” See Appendix C.9. for a bar chart depicting Emily’s references to mastery experiences.

Figure 34

Emily's Sources of Efficacy References



Emily scored lowest on vicarious experiences, meaning she made fewer references that were related to vicarious experiences than she did the other three sources of self-efficacy. She made three references to observing other teachers, two references to literature (books), and one reference to college coursework. See Appendix C.10. to see a bar chart representing the references Emily made regarding vicarious experiences.

Emily referenced experiences of verbal persuasion a total of 28 times, her second lowest referenced source of self-efficacy. She indicated most of these experiences occurred as support from family and friends (n =6) or societal expectations (e.g., all teachers are dealing with so

much, avoid the lunchroom gossip; n = 4). She made only two references to support from work (e.g., probation officer, principal) and no references concerning student feedback. See Appendix C.11. for a bar chart of Emily's references to verbal persuasion sources.

In speaking with Emily, it became clear she has a strong spiritual grounding she relies on to help through difficult situations. This is exhibited in the number of references she made that involved emotional/physiological states (n = 36 references; grouped into 18 phrases/sections). Emily made frequent positive remarks (n = 8) regarding working with justice-involved juveniles. These positive remarks were reflected in the high number of references Emily made regarding positive character traits she possessed. She stated, "I'd say the one thing that's been kind of led to the others is just that determination. You know, and that positive self-talk that, um…you know, no matter what they say, others may say, I have that ability within myself." She further elaborated, "So having that ability, and that you know, so no matter what comes. Maybe I'm emotionally down, but I got that determination where I'm just gonna, you know, push my way through it." Negative references she experienced mainly referred to feelings of frustration over not having access to curriculum or emotional stress caused by awareness of students' home lives. See Appendix C.12. for a bar chart of Emily's references in relation to emotional/physiological states.

Heather

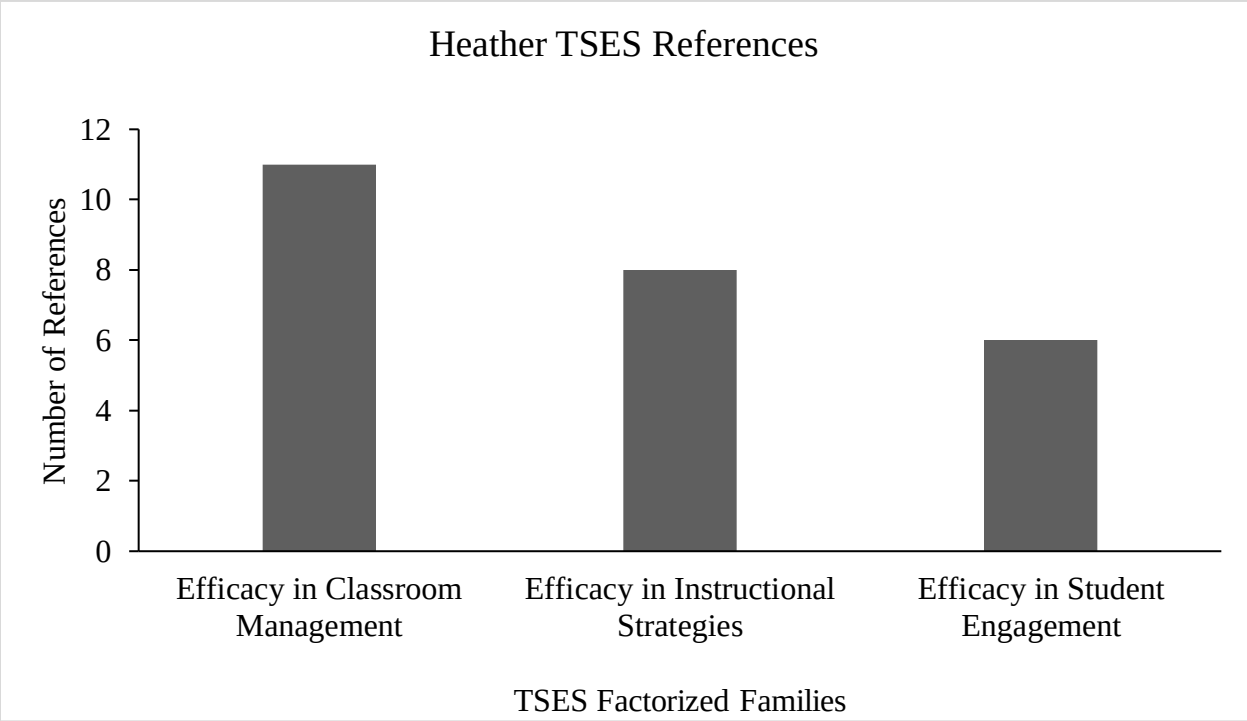
Demographic Characteristics. Heather is a white, Non-Hispanic or Latino female between the ages of 51-60. She reported a master's degree as her highest level of education with her background being in special education. Heather has more than 20 years of teaching experience with 4-10 of those being in an alternative school setting which supported justice-involved juveniles. Heather is not currently working at a facility catering to juveniles who are

involved with the justice system, a result of upheaval in her personal life related to a divorce. She stated she would have happily continued working in the setting for justice-involved juveniles had her circumstances not changed. Heather indicated her primary experience with justice-involved juveniles occurred while working as a teacher at an alternative school setting. She primarily taught English Language Arts (ELA) and social skills. Her students consisted of both genders from ages 12-18+ years of age. She had a caseload of nine to 15 students and generally had six to nine students in the classroom at a time. Heather reported receiving employment-related professional development and formal classwork that was justice-involved juvenile specific.

Teacher Self-Efficacy. Results from the online survey indicate Heather scored highly on the TSES. There are eight items on the TSES that fall under each factorized category (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement). I used a five-point Likert-type scale, therefore the highest possible score on these factorized scores is 40. Heather scored within the top 8% when compared to the other survey respondents. She scored lowest on Efficacy in Classroom Management (35 of 40; rank #7 of 88 cases). She scored slightly higher on Efficacy in Instructional Strategies (35 of 40 possible; #4 of 88 cases). Heather's Efficacy in Student Engagement (35 of 40 possible; #6 of 88 cases) scores fell between the two others. When considering references to the TSES factorized families from her interview, Heather made the most references to Efficacy in Classroom Management (n = 11), seconded by Efficacy in Student Engagement (n = 8). She made the least references to Efficacy in Classroom Management (n = 6), a confirmation of her scores on the TSES questionnaire, where she scored lowest in classroom management. See Figure 35 for a bar chart demonstrating Heather's TSES factorized scores.

Figure 35

Heather Teacher Self-Efficacy References



Heather's classroom management style was focused on developing a warm and accepting culture starting with the structure of her classroom. She indicated that when she first began her alternative educator position, her greatest concern was creating a welcoming atmosphere.

> What I did is I prepared the classrooms in a setting that was warm and welcoming versus sterile and institutional. Um…I went in and put in couches and tables, and it was no desks, you know. Like not formalized at all. It was much more relaxed so that students could feel like a sense of safety and relaxation and not be tense. Um, I took all the stuff off the windows, and I had window views so students could look outside. (3:04) I took all the metal stuff out and put in um, like softer, and then I put in creative centers where they could have choice in their academics."

See Appendix C.13. for a chart of Heather's references to classroom management within her interview. She more frequently made references to the structure of her classroom (n = 7) rather than in regard to the climate she attempted to create (n = 4).

In regard to instructional strategies, Heather portrayed an engaging and creative approach. She stated, “I did a lot of fun activities with them so I could see what skill sets they had, if they were more analytical, if they were more creative. We did a lot of game playing and a lot of talking, and a lot of moving around…But it was more of me kind of gauging what their interests were.” Heather also discussed the impact of the COVID 19 pandemic on this population of students, relating it to a common theme found within her interview, that of developing relationships with students. “And then we had COVID hit and that was a whole disaster in itself, too. But trying to teach kids, who don’t really want to be on the computer, and you know, they’re not tech savvy at all. They want that human interaction.”

As with Emily, Heather reflected on a lack of resources within her alternative school setting. She mentioned writing grants and working with community stakeholders to provide supplies and activities for her students. She said, “I wrote grants, I got art incorporated and infused into my classrooms…donated amplifiers, and electric guitars and recorders, keyboards and drums. I also had art studios. I wrote grants from the foundation, and I got canvases and oils and, uh, pottery and they could go in and create.” Heather also discussed the importance of providing students with real-life experiences many of us may take for granted. She relayed a story about taking her students to a buffet-style dinner in which they did not know the societal expectations. After demonstrating and getting plates for her students, she realized they had a limited understanding of the use of knife, fork, and napkin. She stated, “So, I sat, and I showed them. Let’s put our napkins on our lap. This is how you use a fork. And when I came back to the school, I cried. I told my principal, I said, ‘Oh, my gosh. They have no idea.’”

Additionally, Heather had a specific perception about the students she worked with, which she incorporated into her lessons. “The other thing is those kids are artistic, all of them

are. They all have a gift of art, um, whether it's culinary, they do. They're all gifted in one respect or another. Um, that's what helps heal them as well. I incorporated art into every lesson. If it was math, I'd say, okay, you have to do three-quarters time, which is 3 3/4, right? Show me what 3/4 looks like on a music line or play 3/4 time. Show me what that looks like." Heather made equal references to her efficacy in developing and teaching content (n = 4) and teaching techniques or strategies (n = 4). See Appendix C.14. for a bar chart of Heather's results for Efficacy in Instructional Strategies.

Heather's perceptions of her ability to engage students is reflected in high scores on the TSES questionnaire and the 25 references she made during the interview. Most of her efficacy appears to relate to special populations. Heather made 19 references to her ability to engage and develop relationships with students from special populations. Her approach is most exemplified in the following discourse:

> I was up in the morning. I never missed a day because I didn't want them to be without me. I didn't want them to feel like, oh my gosh, another person letting me down. Even if I was sick, I went to work. I mean, I probably shouldn't have, but I did because I didn't want to let them down. And so, um, you know, I was that one constant in their life and I was not going to go away from that. I was not going to *not* be that person.

See Appendix C.15. for a bar chart of references Heather made regarding student engagement.

When asked what she would recommend for educators preparing to work with justice-involved juveniles, her answer largely reflected the results of the TSES and her interview comments. She first suggested trauma training, knowledge of restorative relationship-building, and infusing art throughout the curriculum. She followed this up with

> I would say do not go in with preconceived ideas, relationship-building first. Always first. Trust and relationships [have] to happen, first. You will not get anything out of them without trust and relationship building. They got to know that you care for them. And they got to know that you're there for them.

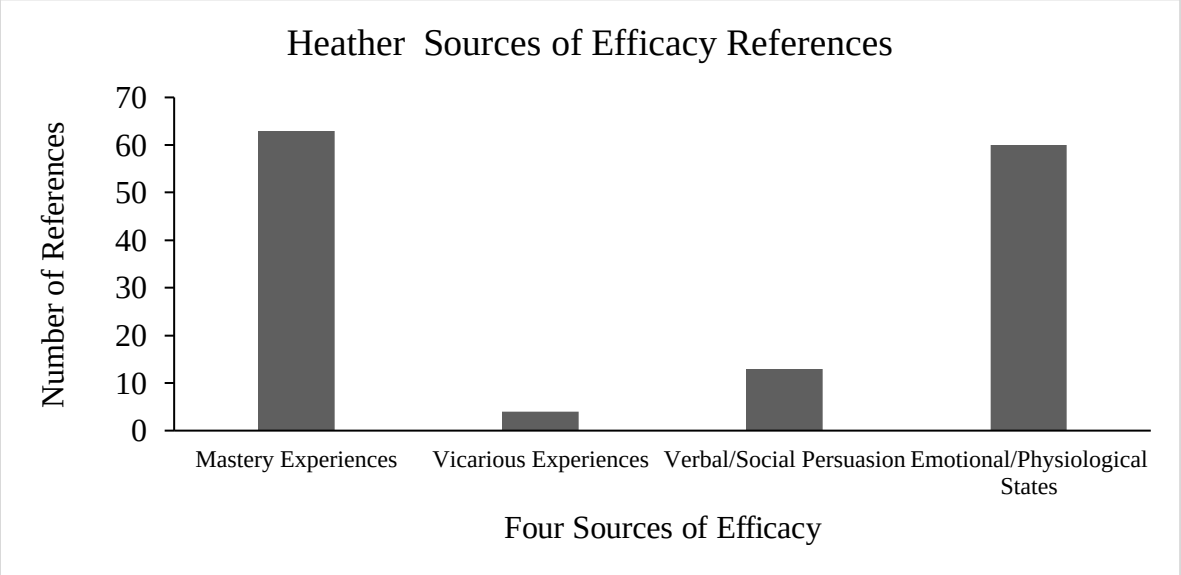
> If you're not either one of those, like your heart's not in it, they will read that and…Yeah. You're just creating more trauma for them.

Heather Sources of Efficacy. Results from the online survey indicate Heather scored highest in mastery experience (39 of 45 possible; rank #9 of 88). She scored considerably lower on vicarious experiences (30 of 45; Rank 62 of 88), verbal persuasion (34 of 50; rank #63 or 88), and emotional/physiological states (17 of 35; rank #74 of 88).

When considering references to the four sources of self-efficacy from her interview, Heather made the most references to mastery experiences (n = 63), which is in-line with her mastery experience score on the SOSI questionnaire. In contrast to the much lower score on emotional/physiological states as measured by the SOSI, it was Heather's second highest interview reference category concerning sources of self-efficacy (n = 60). Her references to verbal persuasion references (n = 13) and vicarious learning (n = 4) reflect lower scores on the SOSI for these factors. See Figure 36 for a bar chart demonstrating Heather's source of self-efficacy scores as measured by references made during the interview.

Figure 36

Heather Sources of Efficacy References



Of the three themes that emerged during analysis of mastery experience references (e.g., past teaching experiences, juvenile justice experience, and past life experiences), Heather equally referenced past teaching experiences (n =15) and experiences with justice-involved juveniles (n=15). See Appendix C.16. for a bar chart depicting Heather's references to mastery experiences.

Heather made minimal references to gaining efficacy through vicarious experiences. Of the three themes that emerged, she referenced formal coursework (n =1) and literature (n = 1) once each, and no references to observing other teachers. She indicated that she did not have mentors or other teachers in her situation in which she could develop efficacy through observation. She stated, "It wasn't the same type of student, and they were working on different things. They were working on you know, keeping the kid in their chair. Whereas I was more focused on trying to get them to have a relationship and recognize normalcy and to act appropriately in public settings…But to see it modeled, I don't think that, um, anyone really had the experience." See Appendix C.17. for a depiction of references made by Heather regarding vicarious experiences.

Although Heather discussed verbal persuasion several times, none were related to interactions with friends and family, or societal expectations of her role as an educator. Further, several of her references reflected the social verbal presence she wanted to portray to her students rather than development of her own self-efficacy. Nonetheless, I included these as an indication of Heather's recognition of the role verbal persuasion can play in efficacy development. For instance, Heather reported telling her students,

> What would Miss H. do? What would Miss H. say? What would she say? I am the voice in your head. I want to be that person in your head that says, 'Mmm, I don't think she would like me doing this' or, you know, 'she would be so proud of me right now.' I want to be that voice. So, you make your decisions

> based on what you think I would say to you when you're doing something." Because I had the relationship, it worked. If I didn't do that first, it would have never worked. I'd just be another face; another name and they'd just be another number.

Additionally, Heather's persuasive methods were grounded in encouraging and motivating her students while letting them know she would not be swayed by the biases of others. "I told them I would never read what someone else wrote about them. I always want to formulate my own opinion and I would always be their floor and I will never be their ceiling. They can fly as high as they need to fly, and I will be there supporting them the whole time." These comments reflect Heather's strong belief in student-centered teaching, although she did not call it by a specific name. Her focus on student relationships is demonstrated in the references she made regarding the successes she felt about student support in developing her self-efficacy (n = 3). See Appendix C.18. for a bar chart depicting Heather's references to verbal persuasion sources.

Although Heather's lowest score on sources of self-efficacy as measured by the SOSI was in emotional/physiological states, her interview reflected a strong connection. Of the three themes that emerged (e.g., positive feelings, negative feelings, and personality traits), Heather exhibited higher positive feelings based on references during her interview. She made 11 references to positive feelings. She stated "…I had moments of tears where a kid would do something so amazing that I, and I, I'm not a crier, but I would just be moved to tears that they overcame so much adversity and, and you know, they still stood strong. And, and just being so proud of them." As to negative feelings (n = 4 references) these most often related to concerns for her students rather than feelings of her efficacy in meeting their needs. Further, some of her emotionally laden experiences could possibly relate more to the strength of her character and

personal convictions. For instance, Heather reflected on experiences she had with students in extreme crisis saying:

> That was more of a, like, um…kind of fight or flight. I didn't fly. I mean, I didn't run. I, I stood, and stood my ground with them. But, um…those are the kind of moments where I realized, okay, this kid might not be, you know, safe…And those were the moments where I had to…like, take a step back and detach my heart from that situation because I loved all those kids individually, and knowing that they were a harm to others, um changed the dynamic of the room and changed the way that I had to approach them and handle the situation.

See Appendix C.19. for a bar chart depicting the number of references Heather made in her interview that concerned Emotional/Physiological States.

Jennifer

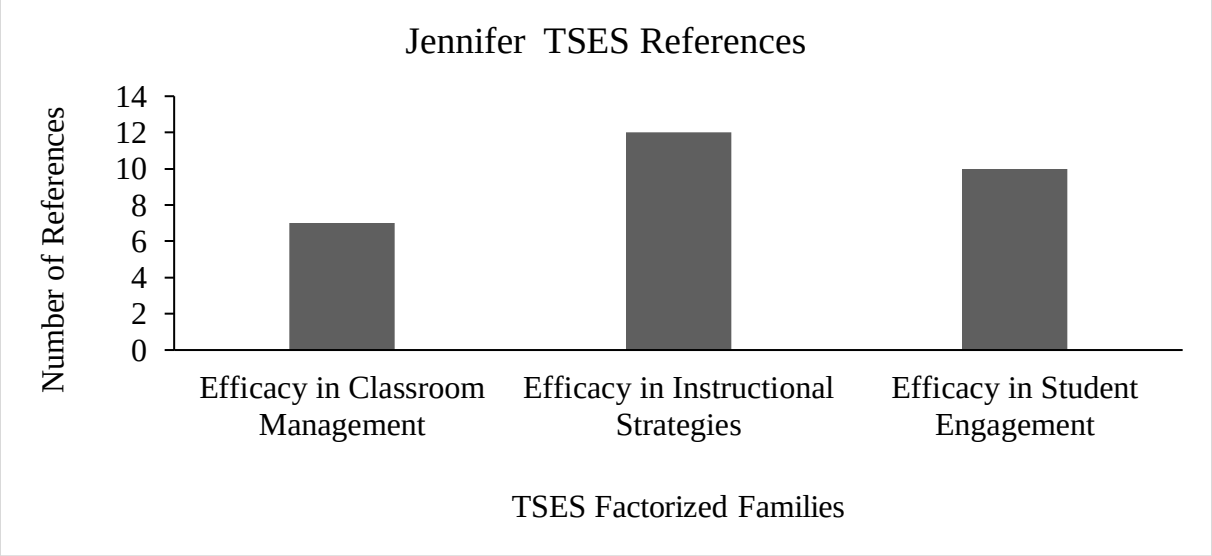
Demographic Characteristics. Jennifer is a white, Non-Hispanic or Latino female between the ages of 31-40. She reported a bachelor's degree as her highest level of education with her background being in Education and Social Work. Jennifer is a novice teacher with two years of teaching experience, all in a juvenile minimum-security facility, although she had worked with this facility and juveniles as a transitional assistant where she was tasked with ensuring the students had the credits they needed. Jennifer also indicated working three years as a substitute teacher and 10 years working with youth through a university cooperative extension program. as Jennifer reported teaching vocational/transition skills, social skills, and functional life skills/community-based instruction. She indicated she mostly taught job and life skills for adulthood and workforce. Her students consisted of male students from ages 13-18 years of age. She had a caseload of 16 to 20 students and generally had six to nine students in the classroom at a time. Jennifer reported that she had not received employment-related professional development but is expecting to complete job-specific training at the end of the spring semester. She explained that she had been hired as the school year began and had not been able to take the training prior

to beginning her position. Additionally, Jennifer reported working through a trauma-informed care training on her own.

Teacher Self-Efficacy. Results from the online survey indicate Jennifer scored highly on the TSES. She scored within the top 25% when compared to the other survey respondents. She scored lowest on Efficacy in Classroom Management (34 of 40; rank #9 of 88 cases). She scored the same on Efficacy in Instructional Strategies but improved her rank order position (34 of 40 possible; #5 of 88 cases). Jennifer scored highest in Efficacy in Student Engagement (37 of 40 possible; #2 of 88 cases). When considering references to the TSES factorized families from her interview, Jennifer made the most references to Efficacy in Instructional Strategies (n = 12). She made fewer references to Classroom Management (n = 7) and Efficacy in Student Engagement (n = 10). Jennifer's survey TSES results and the number of references she made per factorized family were not technically in alignment, as she scored higher in student engagement on the TSES questionnaire but referenced instructional strategies more often. See Figure 37 for a bar chart demonstrating Jennifer's TSES factorized scores.

Figure 37

Jennifer Teacher Self-Efficacy References



Jennifer made few references to classroom management. In fact, she made no references to the climate she tried to project in her classroom and only four references to classroom structure. Jennifer reflected on the difficulties of working with students of distinctly varying abilities with a variety of social emotional issues. She expressed gratitude for small class sizes so she could better reach her students. Jennifer also mentioned the variety of expectations of her job aside from teaching.

> I get to play liaison as well. It's these little jobs that's in the fine print that you don't see. And so, I'm over here to answer questions throughout the day. I have to go to meetings, but I'm also supposed to teach. And so, I have to, if the vocational teachers have a concern, I have to bring that to the management team here on campus. But then I also have to make sure that the school board teachers and the vocational teachers are all on the same page. At the same time.

See Appendix C.20. for a bar chart depicting Jennifer's references to Efficacy in Classroom Management.

In regard to Efficacy in Instructional Strategies, her highest score on the TSES questionnaire, Jennifer displayed a general confidence in her ability to provide instruction, including to special populations (e.g., justice-involved juveniles). When Jennifer began her position, she discovered the program had previously faced upheaval and was in disarray, but she was prepared for the challenge. "And I just had to start from scratch. The program. Which was fine with me and, actually worked out better. I got to build my program from what I, you know, how I wanted it." She further referenced her developing expertise in working with a wide range of abilities in students by recognizing the need to tailor curriculum. "…I need to teach this. How can I make this work for this group of kids. Because I have IQs from low seventies up to very, very smart kids. And I have to make sure that it doesn't go above one's head or go down too much for the others." See Appendix C.21. for a bar chart of Jennifer's results for references made about Efficacy in Instructional Strategies.

Jennifer's perceptions of her ability to engage students is reflected in high scores on the TSES questionnaire and the 17 references she made during the interview. Most of her efficacy is related to general education, which aligns with her background working as a substitute teacher and more particularly at the university extension office, where she reported "Those are typically your exceptional kids, well-behaved, no issues." See Appendix C.22. for a bar chart of references Jennifer made regarding student engagement.

When asked what she would recommend for educators preparing to work with justice-involved juveniles, Jennifer answered, "Don't let them hurt your feelings [the] first day. They're gonna try to get the best of you. Especially, if they're female, uh, if you're female in a male atmosphere. They're gonna try to walk all over you. The staff and the residents. You gotta be bigger than they are." This dialogue introduced gender differences as a topic, one that was largely overlooked by the other interview participants. Nonetheless, Jennifer's approach to gender-biases suggests strong efficacy in her ability to navigate these issues.

Sources of Efficacy. Results from the online survey indicate Jennifer scored highest on verbal persuasion (46 of 50; rank #4 of 88) and relatively high in mastery experience (38 of 45 possible; rank #13 of 88). She scored considerably lower on vicarious experiences (37 of 45; Rank #18 of 88) and emotional/physiological states (25 of 35; rank #25 of 88).

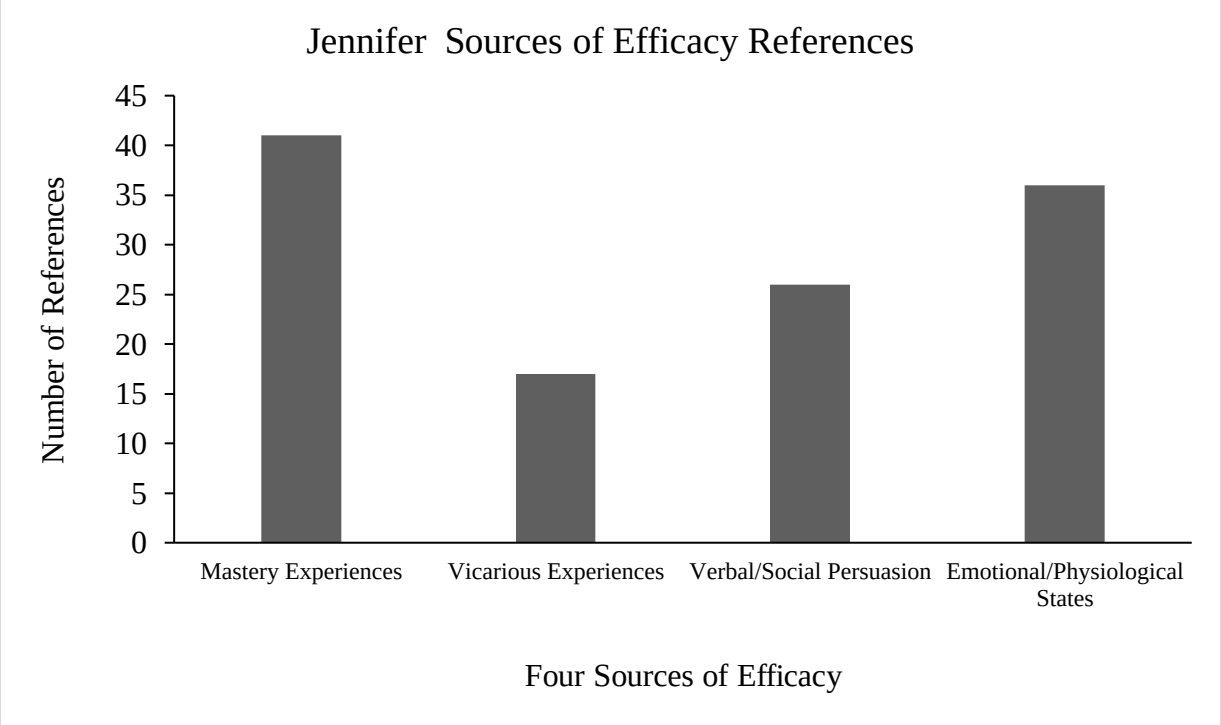
When considering references to the four sources of self-efficacy from her interview, Jennifer made the most references to mastery experiences (n = 41), which was her second highest scoring source of efficacy as measured by the SOSI Questionnaire. Her high number of references to emotional/physiological states (n = 36) was in stark contrast to the questionnaire in which she scored lowest on this source. Despite verbal persuasion being her highest SOSI score, it was the third most referenced source of efficacy during Jennifer's interview (n = 26).

Jennifer's least referenced source of efficacy was vicarious learning (n = 17). See Figure 38 for a bar chart demonstrating Jennifer's source of self-efficacy scores as measured by references made during the interview.

Of the three themes that emerged during analysis of mastery experience references (e.g., past teaching experiences, juvenile justice experience, and past life experiences), Jennifer equally referenced past life experiences (n = 6) and past teaching experiences (n =6). She made fewer references to experiences with justice-involved juveniles (n=4). See Appendix C.23. for a bar chart depicting Jennifer's references to mastery experiences.

Figure 38

Jennifer Sources of Efficacy References



Jennifer made several references to gaining efficacy through vicarious experiences. Of the three themes that emerged (e.g. course or classwork, literature, an observations), she referenced formal coursework (n = 2), particularly sociology and social work classes she

attended while at university. She mentioned not having a formal student, or practice, teaching experience, although she had done shadowing. Jennifer indicated much of her expertise came through vicarious methods before she began her position as a teacher. She stated, “I think with assisting with classes probably helped me with mastery a little as well. And then just kind of being here but not in a teaching role for a year just kind of watching the other teachers what worked what didn’t work. That helped as well.” See Appendix C.24. for a depiction of references made by Jennifer regarding vicarious experiences.

Jennifer discussed verbal persuasion several times (n = 26; collapsed into 10), even so much as to say it was her greatest influencer. Jennifer said, “The [thing that affected me] most definitely is the encouragement I’m receiving from co-workers.” It is no surprise then that her greatest number of references being related to verbal and social persuasion were work-related (n = 4). Jennifer’s position is an interesting one as she works almost daily with her husband, who is also her supervisor and someone she frequently turns to for support and advice. “And most days, he is in the classroom with me. And he gets to, he's very…. we're very... blunt, I guess, and he'll tell me, “That didn't work.” Or, he'll say “they really like this. This works. Do it again.” Jennifer referenced family and friend support three times. Jennifer also mentioned feeling supported by her students (n = 3). She made the same number of references to societal expectations (n = 3). Jennifer touched on economics saying, “They also have a struggle, which, I mean the whole state does and I'm sure a lot of the country is seeing, having a hard time keeping people in jobs and staying still.” See Appendix C.25. for a bar chart depicting Heather’s references to Verbal Persuasion sources.

Despite scoring relatively lower on the emotional/physiological component of the SOSI, Jennifer made 36 references to this source of efficacy. She makes reference to her lack of

preparation for working with this population when she first began teaching. Even so, she speaks knowledgably about her students now, only five months after beginning her teaching position. Jennifer also made several comments about feelings of competence related to the smaller class sizes and time expectations at her facility compared to a regular education school. She noted,

> Here in this job. I'm still giving it everything I've got. But I'm not having to work until 9 o'clock at night. So, it's better. Mentally for me, it's odd that working with DJJ [Department of Juvenile Justice] mentally is better for me than working for a university. But my class size is about eight kids. So, I have a better chance of being able to help them. And It's I feel like what, because I'm supposed to teach them life skills and how to budget money and I don't feel like I could connect with each kid, make sure that they were understanding how to balance that check book if I had 32 kids. I don't know how teachers in regular classroom do it.

Jennifer also spoke of the importance of being able to connect and develop relationships with her students. “The troubled kids have always been my people. When I was in high school, when I was in school and everything. I married one actually…we went to school together and he was the troubled kid. So, they just are. I’ve just always felt some kind of connection.” See Appendix C.26. for a bar chart representing Jennifer’s references to Emotional/Physiological States.

Ryan

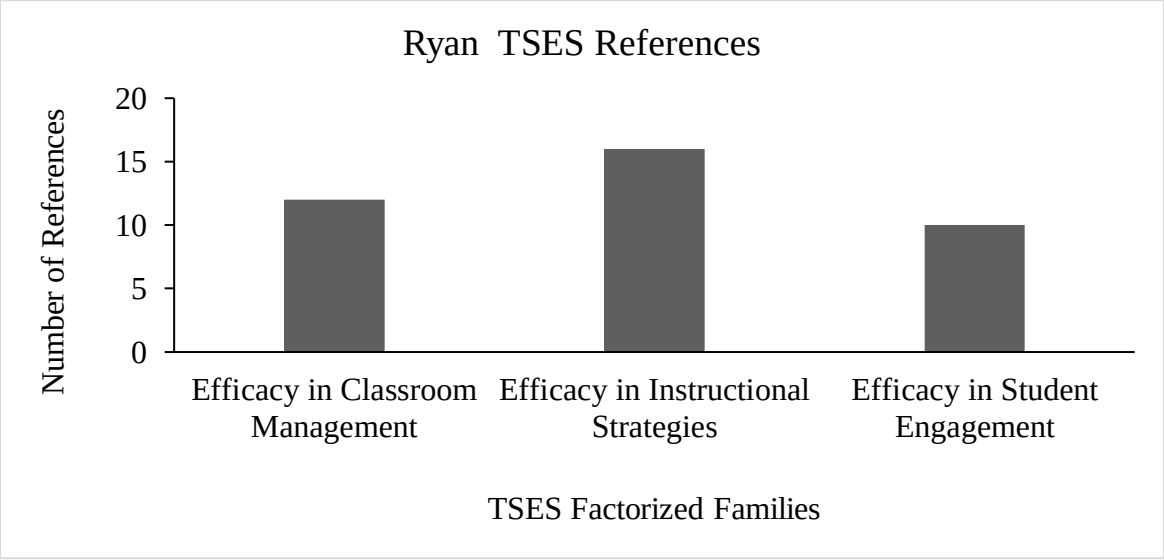
Demographic Characteristics. Ryan is a white, Non-Hispanic or Latino male between the ages of 31-40. Ryan reported having a master’s degree in special education, but stated he was almost finished with a second master’s degree as an educational specialist in educational administration. Ryan has 11-20 years of teaching experience in special education. He has two years of experience as an administrator at a day treatment facility. As Ryan is the principal, he provides support and advice to the teachers, drawing on his previous experience as a special educator. Further displaying his expertise, Ryan reported he has taught most academic subjects and Health/PE. Ryan indicated the age of his students ranged from 10-11 years old to 18+. He

reported working with both genders, with a case size of more than 20. He indicated a class size of six to nine students. Ryan reported having received justice-involved juvenile specific training via the National Alternative Education Association. Ryan was relaxed and confident during the interview, even so much as to ask the interviewer her thoughts on the same questions.

Teacher Self-Efficacy. Results from the online survey indicate Ryan scored highly on the TSES. In fact, his score was ranked first in all three sections of the TSES (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement). I used a five-point Likert-type scale, therefore the highest possible score on these factorized scores is 40. Ryan scored 40 of 40 on all three branches of teacher self-efficacy (40 of 40; rank #1). When considering references to the TSES factorized families from his interview, Ryan made the most references to Efficacy in Instructional Strategies (n = 16). He made 12 references to Efficacy in Classroom Management (n = 11). The fewest referenced section of teacher self-efficacy was Efficacy in Student Engagement (n = 10). See Figure 39 for a bar chart demonstrating Ryan's TSES factorized scores.

Figure 39

Ryan Teacher Self-Efficacy References



Ryan's classroom management style reflected a strong student-centered approach, acknowledging a variety of student needs and ability levels. "And I think you know, instead of being hard military, you know, type [Department of Juvenile Justice] facility, you gotta kind of …you gotta meet them where they're at, you know. Every kid, you know, What are they going through? Where are they coming from? And that's going to help us approach them differently." Ryan reported most students were referred to his facility due to behavior, but again his approach was student-focused rather than harshly disciplinarian. He stated,

And so, they get sent to me as more of like a, "Hey, we need to reset, right? Let's take a step back. Let's reset." See what this kid needs, prior to going back. So, they complete a program. It's a, it's a program that they complete in order to go back. I don't like to call it; I don't like to call it a punishment. I'm not a firm believer in punishment, but I call it a little bit of discipline. There's a big difference there. Try to give them a chance to better themselves with therapy, right? So, we have that ability here." See Appendix C.27. for a chart of Ryan's references to classroom management within his interview. He more frequently made references to the structure of his classes and current facility (n = 7). He made slightly fewer references in regard to the climate he attempted to create (n = 5).

In regard to instructional strategies, Ryan more often referred to efficacy in developing content (n = 9) than teaching techniques or strategies (n = 7). He reflected on his first few years as a special education teacher and feelings of low self-efficacy.

> As far as the teaching goes, of course I was unprepared in the classroom the first few years. I felt like I was an awful teacher the first three years and I finally figured it out around year four. And a lot of that goes back to being unaware of certain standards, you know, state standards. Research methods, as far as, you know teaching techniques. What worked, what didn't. Being able to recognize and have a depth of knowledge on a specific diagnosis, if you will, on how students respond to different things.

Ryan's efficacy has increased so that he now speaks confidently about monitoring and supporting the educators in his facility. "a lot of new teachers, especially new special ed teachers are gonna have, they're gonna struggle finding time and aligning content to meet progress monitoring standards and goals in the IEPs. And so, I help, you know, my special ed teachers here with that as well."

Ryan also touched on the importance of life-long learning and its importance as educators of special populations. "We're trying to figure out, you know, how we can make ourselves better and adjust our, you know, instructional strategies to best fit the needs of our ever-changing society." He elaborated, "And I think that's important to portray that message to your students and staff as well, that we're still learning. We're all still learning. Nobody's perfect. Learning doesn't stop." See Appendix C.28. for a bar chart of Ryan's references to Efficacy in Instructional Strategies.

Ryan's perceptions of his ability to engage students is reflected in the number of references he makes in his interview regarding working with special populations (n = 15) and more general statements about student engagement (n= 10). Ryan reported having 13 years of experience in a special education setting where he taught "students of all classifications, with IEPs, 504s, you name it." Additionally, Ryan touches on the transiency of his students and the frequency of children in the foster care system. "I'm pretty sure my county is in the top five of the entire state on having foster families and foster children enrolled in public schools. And so, as a, as a whole, our county is pretty, transient, moving in, moving out." He also reflects on needing different approaches to reach different demographics of students. "And especially those who are in [Department of Juvenile Justice] and alternative settings, and foster, you know, you

name it state agency children. You have to approach them differently." See Appendix C.29. for a bar chart of references Ryan made regarding student engagement.

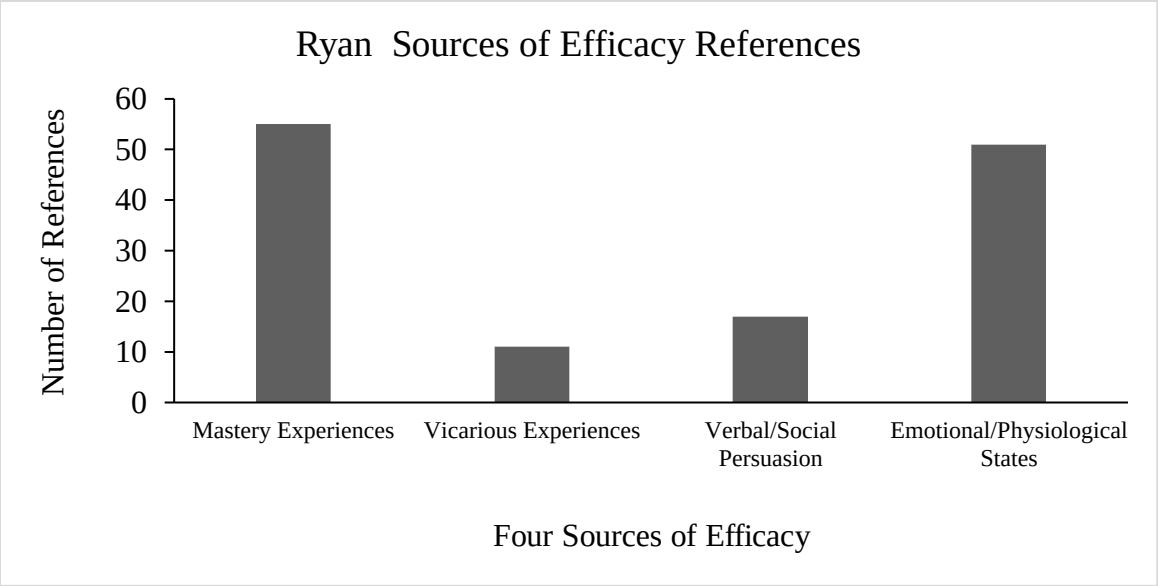
When asked how educators could be prepared to work with justice-involved juveniles, he mentioned several components. The first was to not take things personally and to be flexible. Like several of the other interviewees Ryan discussed creating relationships and getting to "know the person." Lastly, Ryan recommended educators take care of their mental health. He said, "And take care of your mental health. Because the amount of trauma that we see every day can really take a toll on you. So, make sure you have an outlet somewhere… So that you can, you can talk about what you see and what you hear with these young folks. It's pretty, pretty powerful."

Sources of Efficacy. Results from the online SOSI questionnaire indicate Ryan scored highest in verbal persuasion (47 of 50; Rank #1 of 88). He ranked among the top five scorers on mastery experiences (40 of 45; rank #5 of 88) and vicarious experiences (41 of 45; Rank #4). He scored lowest on emotional/physiological states (27 of 35; rank #15 of 88).

When considering references to the four sources of self-efficacy from his interview, Ryan made a total of 134. Most of his references were to mastery experiences (n = 55) and emotional/physiological states (n = 51). He made considerably fewer references to verbal persuasion references (n = 17) and vicarious learning (n = 11). See Figure 40 for a bar chart demonstrating Ryan's source of self-efficacy scores as measured by references made during the interview.

Figure 40

Ryan Sources of Efficacy References



Of the three themes that emerged during analysis of mastery experience references (e.g., past teaching experiences, juvenile justice experience, and past life experiences), Ryan frequently spoke of previous teaching experience (n = 14) and experience with justice-involved juveniles (n = 10). He spoke fewer times about past life experiences where he had gained feelings of teacher self-efficacy (n = 3). See Appendix C.30. for a bar chart depicting Ryan's references to mastery experiences. Ryan was very clear about the importance of learning by doing, and the positive influence of mastery experiences.

> And so, as for being prepared. I was definitely not prepared in those first four years. So, like I said, but, through the process of growth throughout those first five years or so. You really get to kinda add tools to your toolbox and to help to help you figure things out you know you just have to go through it. And I was, I was a person that was never afraid to mess something up either. You know, learning to write IEP's, trying something new. I've never been afraid to try something new in the classroom.

Ryan made only five references to vicarious experiences, but they all pertained to efficacy he developed by observing other teachers. One instance he said, "I was paired with

really good, not only teachers, but people. Right. That would show me, how to build relationships, how to get the content across. And that's where I learned most of my stuff." Another time he stated, "I've been lucky having good mentors and learning from some really good content teachers on what works and what doesn't. So, I've been, I've been pretty blessed on that part." See Appendix C.31. for a bar chart depicting Ryan's references to vicarious learning experiences.

Although Ryan only made references to verbal persuasion 17 times, he depicted a strong belief in his ability to make community-wide impact. He stated that he had grown up in the area and had returned as an adult being fully aware of the influences of drug addiction and poverty.

> I moved back, and I have my family here now and so I want this community to be better. And I know that it can be better. And it starts with helping our most at - high- risk students, you know, get them something. Because if not, I mean, they're going to end up and continue that generational…snowball, if you will, of poverty, or you name it, drug abuse, and they fall back to what they know and the environments that they grew up in. And so, if I can teach them a different way. You know… then eventually down the road, it's gonna help our community. I may not see it while I'm alive, but down the road, I think we're making a huge impact. And that's all, that's all I can hope for is it to have an impact and a change a kid's life, maybe change, you know, their kids' lives and so forth.

Ryan indicated a high level of work support, referring to administrators, mentors, and other teachers who had verbally encouraged and supported him (n = 6). He made no references to feelings of efficacy brought about by family or friend's support. See Appendix C.32. for a bar chart depicting Ryan's references to verbal persuasion sources of efficacy.

Emotional/physiological states was Ryan's second highest score on the SOSI and was reflected in the number of times he referred to this source of efficacy-building (n = 51). Like other interviewees, Ryan felt strongly about developing relationships with the students. "We're not here to teach content per se, we're in the people business and so I really focus on building

relationships, first and foremost. With my kids and always and always have with students. I feel like, you know, we gotta address those needs first, before content comes across."

Most of Ryan's comments reflected positive feelings regarding emotional/physiological States (n = 14). The negative feelings he commented on (n = 4) were more frequently in relation to his early teaching career. He said, "I felt like I was an awful teacher the first three years, and I finally figured it out around year four." Ryan also touched on the importance of being able to learn by doing, about which he said "…if I didn't have the freedom to mess up in those first four years, then I would have been really depleted. And may not even still in this profession, you know. If I had an administrator that tells me, you know, that you can't do that, you know. You can't mess up. That added pressure would have definitely driven me away and killed a lot of interest, I think, in teaching, in general." See Appendix C.33.for a bar chart representing the number of references Ryan made to Emotional/Physiological States during his interview.

When asked which of the four sources of efficacy may have influenced him most, or least, he stated, "I think they're all…They are all, depend upon, dependent upon each other. Honestly, without one, of course you're still gonna learn, right?"

Sarah

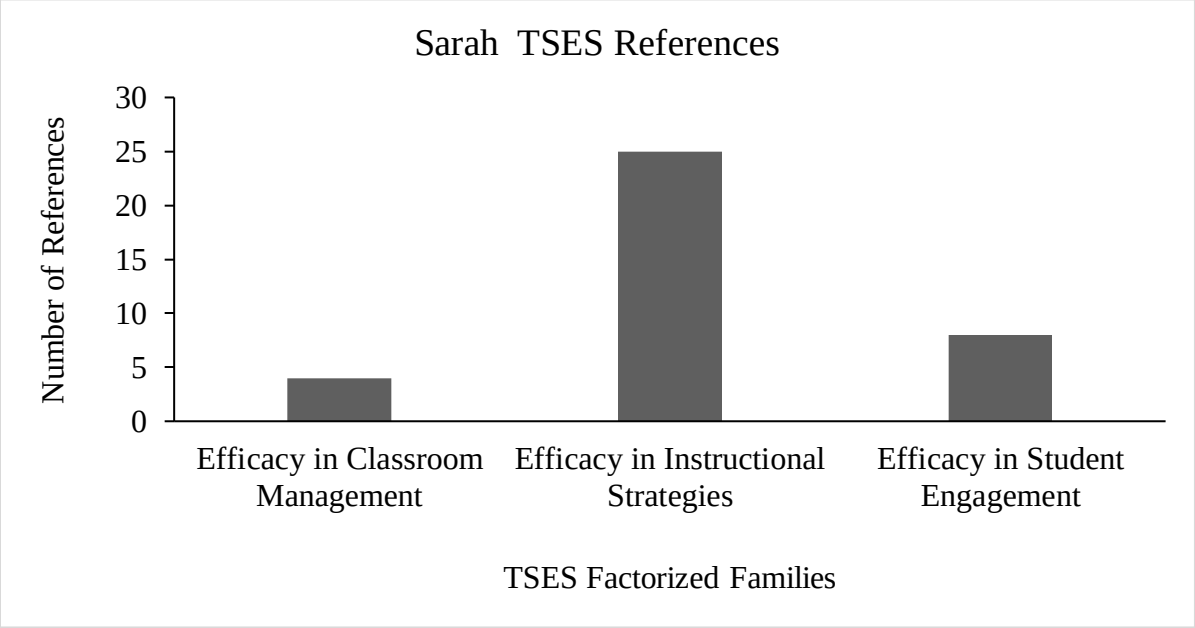
Demographic Characteristics. Sarah is a white, Non-Hispanic or Latino female between the ages of 31-40. She reported having a bachelor's degree in computer information. She stated she prior to beginning her position, she had no formal teaching education. Sarah would be considered an intermediate level educator with 4-10 years teaching experience, all in a juvenile minimum-security facility. Sarah reported that she teaches vocational/transition skills and social skills primarily through digital literacy classes. Her students are all male and aged 12-17. She had a caseload of less than nine students and generally had less than three students in the

classroom at a time. Sarah reported receiving employment-related professional development and formal classwork that was justice-involved juvenile specific.

Teacher Self-Efficacy. Results from the online TSES survey indicate Sarah scored within the top 70% of respondents. She scored lowest on Efficacy in Classroom Management (29 of 40; rank #32 of 88 cases). She scored the same number of points but ranked higher on Efficacy in Student Engagement (29 of 40; rank #28 of 40). Her highest TSES scores were in Efficacy in Instructional Strategies (32 of 40 possible; #14 of 88 cases). When considering references to the TSES factorized families from her interview, Sarah made the most references to Efficacy in Instructional Strategies (n = 25). She made considerably fewer references to Efficacy in Student Engagement (n = 8) and Efficacy in Classroom Management (n = 4). See Figure 41 for a bar chart demonstrating Sarah's references to TSES factorized families.

Figure 41

Sarah Teacher Self-Efficacy References



Sarah scored lowest in Efficacy for Classroom Management on the TSES and made the least references to this branch of teacher self-efficacy (n = 3). Of these references, all related to

the structure of her classroom rather than the culture she tried to implement. As a relatively new teacher, Sarah spoke of her supervisor helping her develop her efficacy in classroom management. She stated, "When I first started… he when he did his observations back when I first started, he was very helpful when it came to, um, learning about classroom management, which was my weakest point. And he actually helped me find different classes and methods to help me enhance my classroom management." See Appendix C.34. for a bar chart depicting Sarah's references to classroom management.

Sarah's highest score on the TSES was in the area of Efficacy in Instructional Strategies, a score supported by the number of total references she made to instructional strategies during her interview (n = 25). These references were collapsed into eight mentions of student engagement and four mentions of efficacy for working with justice-involved juveniles. Despite having little formal teaching background, Sarah displayed a good understanding of adapting work to meet the needs of special populations.

> Yeah, so you have to be able to modify your teaching style, modify your access to the information in such a way that is it's accessible for anybody. And I know this sounds contradictory, but at the same time you have to be able to challenge the students that need the challenge and provide them with the insight and inspiration to do something with the skills that they may have used to get them into the justice system in the past, for something good in the future.

Sarah also frequently spoke of classroom successes she had experienced, "One of the programs that I was doing…was teaching students how to literally build copper and fiber network cables and do that networking. And it always excited me when they had a quiz at the end of each chapter, and they would get between 90 and a hundred on those tests." See Appendix C.35. for a bar chart depicting the references Sarah made in her interview regarding Efficacy in Instructional Strategies.

Sarah made references to Efficacy in Student Engagement 12 times, with four of these being in relation to efficacy in working with justice-involved juveniles. She indicated her employer had provided professional development so that by the first day with students she felt somewhat prepared.

> I had had a lot of time to learn how to craft a good lesson. How to introduce lessons to students and I was really nervous but once I got past the first couple of roadblocks of introducing myself to the students and getting to know them a little bit. We were able to kind of easily settle into a routine of this is how…my classes are going to go. I'm going to introduce the material, talk about it, check in with the students for any questions they may have, go back and clarify anything that I need to.

See Appendix C.36. for a bar chart depicting the number of references Sarah made in her interview regarding student engagement.

When asked what she would recommend for educators preparing to work with justice-involved juveniles, Sarah's answer largely reflected a need to understand the complexities of this population of youth. "Particularly with justice involved youth, you have to, um, be able to empathize with their situation. Um, you have to be able to get on their level for lack of a better term and not just…you can't treat them like normal high school kids." Further, she posited a challenge to fellow educators that exemplifies her philosophy of education, by focusing on real-life skills that lead to a new, successful life. "That's the challenge that I present to any educator, but especially in juvenile justice. Because part of our mission is to help, help our students develop into productive citizens that aren't falling into this school-to-prison pipeline that a lot of, especially students of color, seem to fall into."

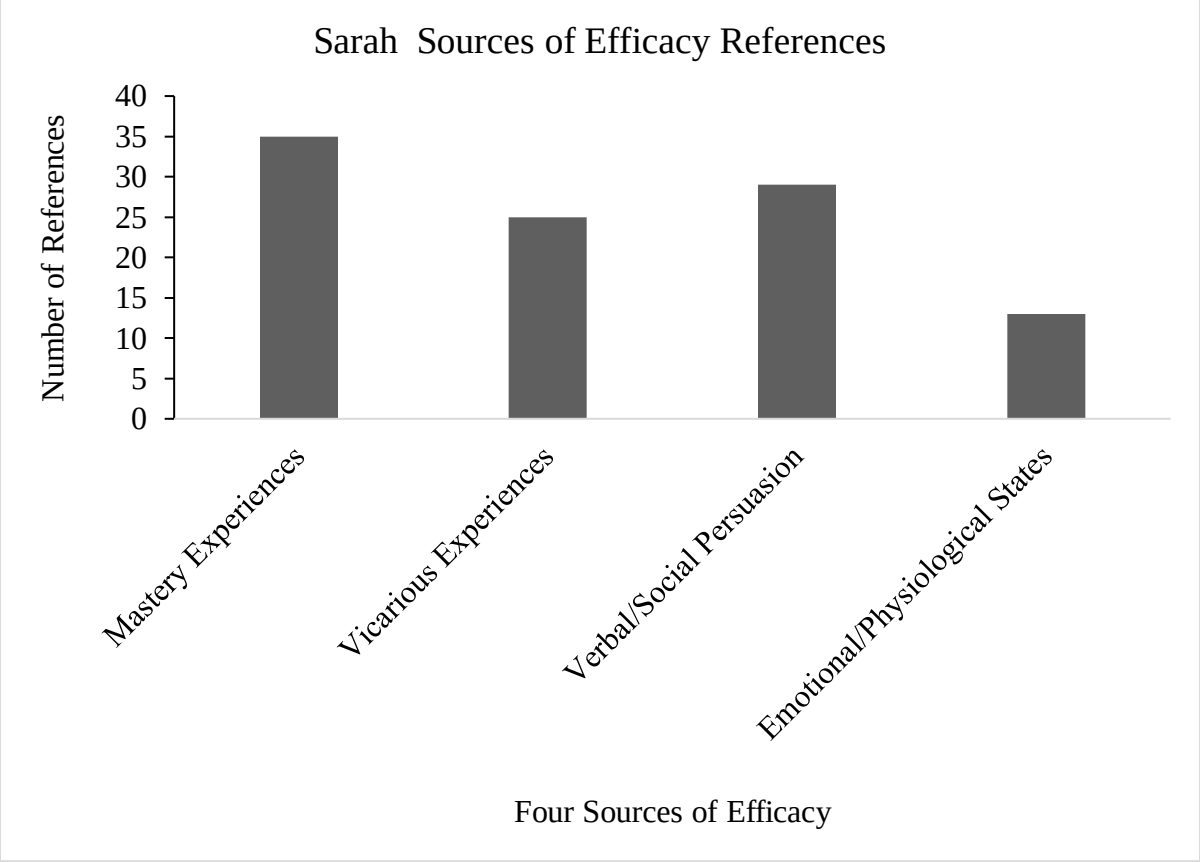
Sources of Efficacy. Results from the SOSI online survey indicate Sarah scored highest in verbal persuasion (46 of 50; rank #5). She scored slightly lower, but still within the top 16% of respondents on mastery experience (38 of 45 possible; rank #14 of 88) and on vicarious

experiences (39 of 45; Rank #13 of 88). Sarah's lowest score on the SOSI was in emotional/physiological states (25 of 35; rank # 27 of 88).

When considering references to the four sources of self-efficacy from her interview, Sarah made the most references to mastery experiences (n = 35) and verbal persuasion (n = 29). She made 25 references to vicarious learning experiences, and the fewest references to emotional/physiological states (n = 13). See Figure 42 for a bar chart demonstrating Sarah's source of self-efficacy scores as measured by references made during the interview.

Figure 42

Sarah Sources of Efficacy



Of the three themes that emerged during analysis of mastery experience references (e.g., past teaching experiences, juvenile justice experience, and past life experiences), Sarah equally referenced past teaching experiences (n = 4) and past life experiences (n =4). She made twice as

many references to efficacy built through experiences with justice-involved juveniles. One of her most compelling statements about mastery experiences was, “I was teaching at the same time that I was learning to teach.” Which very possibly reflects the feelings of many novice teachers. See Appendix C37 for a bar chart depicting Sarah’s references to mastery experiences.

Sarah made more references to gaining efficacy through vicarious experiences, than the other interviewees. Of the three themes that emerged, she referenced formal coursework (n = 5) and observing other teachers (n = 5) equally. Sarah had been given many opportunities through employment to develop her teaching skills. In fact, her experience was novel to the researcher’s experiences.

> I came in with no… formal educational background. And I made that clear during the interview process. They said that they were, and they have held to this, They said when I was interviewed that they would get me the educational… education that I needed to be able to teach effectively. Um, and that, that was a 2 year process to get that. Day one when I first started this job, I was told that I would not have students for at least a month, and I could use that time to observe other teachers in this school and other teachers in the county to get an idea of how I can interact with the students and how I can present material. And I took full advantage of that. During that time, I also went to both in person and online courses on how to teach effectively, different teaching styles, techniques, things like that.

I asked Sarah if she thought this amount of support for new teachers was specific to her state, or perhaps to the facility she worked. She indicated it was a fairly new state-led program for new teachers which seems similar to the education “bootcamps” in Oklahoma that are designed for Alternatively Certified Teachers. These teachers have degrees in areas other than education and are hired with the provision they attend intensive training sessions and/or gain a specified number of education course credits. See Appendix C.38. for a depiction of references made by Sarah regarding vicarious experiences.

Similar to her vicarious learning experiences, Sarah made several mentions of work-related support (n = 9) when speaking of verbal persuasion. She also reflected on student support (n = 3), particularly in discussing classroom teaching successes. Significantly she discussed how observing other teachers had influenced her.

> I did several observations, and I saw the different ways that, different teachers with different mindsets and different subjects than mine., um, presented those subjects to their students. Some of them, some of the teachers would talk above the students heads. And that's definitely something that I knew I didn't want to do because the students would come back with a bunch of questions and not understand the material. And then I remember, one of the teachers that was here, that I observed teaching science. When I sat in on his class, he would go back and literally, repeat topics for lack of a better term that a student was just completely clueless on. I saw him go back and go over that and even work one on one with the students…I saw, every teacher here will work one on one with students if they need it. And is willing to do that. And I feel like that taking that as an example and moving that into my own teaching has helped with my success.

See Appendix C.39. for a bar chart depicting Sarah's references to verbal persuasion.

Sarah's lowest score on sources of self-efficacy as measured by the SOSI was in emotional/physiological states, which was supported by the number of times she mentioned emotional and physiological aspects of teaching efficacy (n = 7) during her interview. Of the three themes that emerged during analysis of this source of efficacy (e.g., positive feelings, negative feelings, and personality traits) Sarah exhibited twice as many positive feelings (n = 4) than negative feelings (n = 2). See Appendix C.40. for a bar chart depicting Sarah's references to emotional/physiological s5tates during her interview.

Summary of Teacher Self-Efficacy Interview Responses

In the following section I discuss results from the interviews based on references to Teacher Self-Efficacy followed by a discussion of references regarding the four sources of efficacy.

Results from the whole group analysis, indicated a total of 229 references to Teacher Self-Efficacy and 620 references to at least one of the four sources of efficacy. Ryan made the most references to Teacher Self-Efficacy (n =53), while Jennifer made the least (n = 39). There were no discernible patterns in the teacher self-efficacy references in regard to age, years teaching in a special setting, case size, class setting, class size, or population-specific professional development. The educators with the three highest numbers of references to teacher self-efficacy (Ryan, Emily, Heather, in that order) had some common characteristics not shared with the other two participants. All three respondents with higher references to TSES had a master's degree and backgrounds in special education. They were all veteran teachers with more than 11 years of experience teaching. The three participants with higher TSES references worked in lower-security environments (two were alternative schools and one was a juvenile minimum security). All three taught academic skills along with other content areas, whereas the two participants with lower references to TSES taught vocational/transition skills along with other content areas. This is also reflected in subject area where the three interview participants with higher numbers of references to TSES taught ELA or ELA and other academic subjects. The two participants with fewer references to TSES taught job and life skills and digital literacy. All five participants taught students ages 12—17, but the three participants with highest references to TSES also taught other age groups, both younger (10-11) and/or older (18+). The three also taught both genders of students, whereas the other two participants taught only male students.

Within the individual components of TSE (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement), there were varied numbers of references made by the participants. In Efficacy in Classroom Management the three high scorers were Ryan, Heather, and Emily (in that order), albeit slightly different rankings.

They had commonalities in education level, teaching experience, teaching content area and subject area, student gender, and student age. During the coding process, two themes emerged within the classroom management references. All five interview participants made references to the structure of their class in regard to scheduling and lesson planning. Three of the respondents made references that could be classified as culture, in which they discussed trying to provide a warm and supportive environment and develop relationships with students. This suggests that this group of educators have more efficacy in providing the necessary structure for a detention-type facility, than they do in developing a particular kind of classroom culture. This could relate to the highly structured nature of a detention facility environment more than these teachers' ability to provide welcoming and nurturing classrooms, particularly as several of the participants remarked on the need to develop relationships with students.

There were a varied number of references made by interview participants regarding Efficacy in Instructional Strategies (n = 77). With this component of the TSES, Sarah scored highest (n = 25) followed by Emily and Ryan with a tie (n =16). However, there were no discernible trends in demographics and these three interview participants except for population-specific training. These three participants reported receiving professional development of some kind that was related to justice-involved juveniles, whereas the other two participants with lower references to Instructional Strategies reported receiving no population-specific training. Additionally, Sarah had remarked on her lack of education background before beginning teaching, although she received professional development for teaching and working with justice-involved juveniles through her employment. She stated, "I was teaching the same time I was learning to teach." (Based on scores of TSE in preservice teachers, this is most likely common). Sarah was also the interview participant who had a background in computer sciences and taught

computer sciences to her students. Which suggests her efficacy came more with the content knowledge of computer sciences, and previous on-the-job experiences than with teaching experience. During coding of Efficacy in Instructional Strategies, two themes emerged: knowledge of content and teaching strategies or techniques. All interview participants other than Jennifer made more references to content knowledge than they did to teaching strategies and techniques.

Of the 99 references made to Efficacy in Student Engagement the high scorers changed slightly. Jennifer and Ryan made equal references to student engagement (n = 10) closely followed by Emily (n = 9). These three participants reported having experience in multiple disciplines (special education, social work, or special education and communications) along with backgrounds in Education. These three educators also reported similar class sizes (six to nine students per class). There were no other discernible trends in demographic variables and Efficacy in Student Engagement references. From the references to student engagement, I separated those (n = 56; 57%) that specifically referred to teaching special populations (e.g., students with disabilities and justice-involved juveniles). This indicates these interview participants gained much of their student engagement efficacy through working with special populations of students such as those with disabilities and/or those involved with the justice system.

Summary of Four Sources of Self-Efficacy Interview Responses

I began coding transcripts based on Bandura's proposed four sources of self-efficacy (e.g. mastery experiences, vicarious experiences, verbal persuasion and emotional/physiological states). A total of 620 references were made to at least one source of efficacy. Mastery experiences (n = 239) were referenced most often followed by emotional/physiological states (n = 196). There were considerably fewer references to verbal persuasion (n = 113) and vicarious

learning (n = 72). The average number of references made to at least one of the four sources of efficacy by one participant was 411.

Bandura suggested mastery experiences may be the most influential of the four sources of efficacy (Bandura, 1997) and it was the most frequently referenced source of efficacy (n = 239) by these interview participants. Heather (n = 63) referenced mastery experiences significantly more than most of the other participants, seconded by Ryan (n = 55), and thirdly by Emily (n = 44). Of the total 239 Mastery experiences, three themes emerged during the coding process: past life experiences (n = 18), past teaching experiences (n = 51), and past juvenile-justice experiences (n = 43). This suggests this group of interview participants relied more on past teaching experiences, regardless of the setting, to develop efficacy through mastery experiences, although they also relied heavily on experience with justice-involved juveniles. Sarah, who made the least references to mastery experiences during her interview, actually made the greatest number of references to past life experiences. This suggests Sarah had gained much of her efficacy from mastery experiences that involved experiences other than teaching or working with justice-involved juveniles. Which makes sense as she had a degree in computer sciences and experience working in that field.

The least referenced source of efficacy was vicarious experiences (n = 72). This is particularly notable in light of teacher preparation programs which rely heavily on learning through textbooks and other readings, along with opportunity to observe veteran teachers in action. References to this source of efficacy was highest for Sarah (n = 25), Jennifer (n = 17) and Emily (n = 15). I could find no discernible trends in demographic variables of these three participants that might relate to references to vicarious experiences. I further separated those references into three groups: formal classes or coursework (n = 9), literature (e.g., books,

movies; n = 3) or observations of others (n =16). Due to the teacher preparation process, pre-educators often have formal observations required of them in which they observe more veteran teachers in their classrooms. Therefore, one would expect educators to have a high number of vicarious experiences in development of efficacy. This was not the case with this group of interview participants. In fact, Heather had made the least references to vicarious experiences during her interview, possibly in part because of her lack of access to other educators teaching the same types of students. For Sarah, vicarious experiences had been one of the sources of efficacy she had most referenced in her interview. This could be in large part due to the amount of employment support and professional development they had provided for her to become successful as an educator as well as to work with justice-involved juveniles. As she had indicated, she was learning to teach as she was teaching, and she was a relatively new teacher suggesting maybe the information was just fresher? Or maybe our teacher prep is better?

Verbal persuasion (n = 113) was the second least referenced of the four sources of efficacy. The three highest scorers were Sara with 29, Emily with 28, and Jennifer with 26 references. I could find no discernible trends in demographic variables with these three participants that could relate to references to verbal persuasion. I divided the verbal persuasion references down into four major themes: supportive/non-supportive family and friends (n = 8), work-related support (n =23), student support (n = 9) and societal expectations (n =8). This group of educators appear to receive efficacy by verbal persuasion mostly through work-related experiences. To a much lesser extent they rely on student support and feedback to develop feelings of efficacy.

The second most referenced source of efficacy was emotional/physiological states (n = 196). Heather (n = 60) scored highest in this area, followed by Ryan (n = 51), and then Emily

and Jennifer with a tie (n = 36). I could find no discernible trends in demographic variables with these four participants that could relate to references to emotional/physiological states, although this is the only source of efficacy where four of the five participants had top three high scores because of the tie. During coding, three major themes emerged: positive feelings (n = 44), negative feelings (n = 20), and personality traits (n = 30). These educators gain a great deal of their feelings of efficacy from positive feelings they experience while teaching this population of juveniles. Several of them also discussed positive personality traits they possess that likely also contribute to their feelings of efficacy. For instance, Emily reported on her high levels of self-determination and how it had helped see her through difficult situations, while Heather had described herself as being a pretty relaxed individual who was slow to anger. Also of note is the context of the negative feelings interview participants discussed. For instance, the negative feelings were associated with frustrations over lack of materials or concerns for students' home lives rather than feelings of negativity about aspects of the juvenile-justice environment or concerns over the behaviors of students. It is also interesting to note that all five interview participants scored lowest on emotional/physiological States but based on their responses it is clear they all had a strong emotional connection with their students.

Summary of Quantitative and Qualitative Mixing

In addition to the mixing method used previously to identify interview participants (e.g., top scorers on TSE and at least one of the four sources of efficacy), a second mixing occurred after collection of all quantitative and qualitative data. This mixing involved validation or non-validation of survey results based on interview participant responses. I will discuss each interview participants references to TSE, TSE components, and the four sources of efficacy in comparison to their scores from the quantitative portion of the study (e.g., online survey).

Emily scored a total of 104/120 (Rank # 8) on the TSES, indicating a moderately high level of Teacher Self-Efficacy. Of the three components of TSE as measured by the TSES, Emily scored highest in Efficacy in Class Management (Rank # 1), second in Efficacy in Instructional Strategies (Rank #12), and lowest in Efficacy in Student Engagement (Rank #21). Even though she scored highest in classroom management (Rank # 6), she made the fewest references to this component of TSE (n =8). In contrast, she made more references to Efficacy in Instructional Strategies (n=16) and Efficacy in Student Engagement (n = 11). This indicates that although she scored higher in Efficacy in Classroom Management on the survey, Emily perceives herself to be least efficacious in this area. Of the four sources of efficacy, Emily scored highest on the mastery experiences (Rank # 1) portion of the SOSI, which is collaborated by a high number of references (n = 45) during her interview. Emily attributed much of her efficacy to past teaching experiences, and to a lesser extent experiences with justice-involved juveniles. Emily scored relatively high on vicarious experiences (Rank # 5), although this was her least referenced (n = 15) source of efficacy. Emily scored lowest on the emotional/physiological states (Rank # 75) portion of the SOSI but had the second most references (n = 36) to this source of efficacy in her interview. This suggests Emily doesn't perceive emotional/physiological states to be a significant contributor to her success but may rely on this source of efficacy more than she realizes based on the high number of references during her interview.

Heather's scores were an interesting contradiction. Heather scored relatively high on TSE (92/120; Rank # 4) with her highest score being in Efficacy in Instructional Strategies (Rank # 4). Yet in speaking with Heather, she made many more references to her efficacy in student engagement (Rank # 6, n = 25) rather than instructional strategies (n = 8). She felt equally efficacious with content and teaching techniques (Efficacy in Instructional Strategies). Within

classroom management (Rank # 7), Heather and Ryan were the only two interview respondents who referred frequently to the climate they attempted to create while providing a high level of structure. Heather perceives herself to have developed a high level of efficacy from mastery experiences (n = 63), which is supported by her survey score on mastery experiences (Rank # 9), her highest score on sources of efficacy. In contrast, Heather scored lowest on emotional/physiological states (Rank # 74), but it is evident from her interview (n = 60) that she has experienced high levels of emotional/physiological states as a source of efficacy. In particular Heather referenced positive feelings and positive personality traits more than any interview participant, other than Ryan who had similar numbers of references. Heather scored relatively low on vicarious experiences (Rank # 62) and verbal persuasion (Rank #63) which makes sense in light of her interview where she disclosed having had little opportunity to observe other teachers in a similar position to hers.

Jennifer scored moderately high on TSE (105/120, Rank # 20). She scored highest on Efficacy in Student Engagement (Rank # 2), second highest in Efficacy in Instructional Strategies (Rank # 5) and lowest on Efficacy in Classroom Management (Rank # 9). In contrast, she made more references to her efficacy for instructional strategies (n = 12) than either student engagement (n = 10) or classroom management (n = 7). Jennifer scored highest on verbal persuasion (Rank # 4), but it was her third most referenced source of efficacy in her interview. She scored lower on both mastery experiences (Rank # 13) and emotional/physiological states (Rank # 25), but they were her two most referenced sources of efficacy (n = 41 and n = 36 respectively).

Ryan scored highest on all four TSES-related scores (120/120 or 40/40, Rank #1 on all). He made more references to Efficacy in Instructional Strategies (n = 16) than to either classroom

management (n = 12) or student engagement (n = 10). This suggests Ryan is well-rounded in his teaching efficacy and perceives all three components of teaching self-efficacy as important. Ryan also scored high on sources of efficacy with his highest score being in verbal persuasion (Rank # 1), which he highlighted during his interview (n = 17) with discussions of mentorship. Ryan made the most references to mastery experiences (n = 55), his third highest scored source of efficacy (Rank # 5). He made only slightly fewer references (n = 51) to emotional/physiological states which was his lowest score of the sources of efficacy (Rank # 15). This suggests an interesting dichotomy in which he made more references to the sources of efficacy he scored lowest in on the SOSI. Like Heather, Ryan made references to climate of the learning environment he tried to produce along with discussion of providing high levels of structure. Also, like Heather, Ryan appeared to gain much of his feelings of efficacy in emotional/physiological States through positive feelings along with positive personality traits.

Sarah's TSE scores (99/120, Rank #5) suggest she feels moderately efficacious in teaching. Of the three components of TSE, Sarah scored significantly higher on Efficacy in Instructional Strategies (Rank # 14) which aligns with her interview references to instructional strategies (n = 25). This is significant in light of Sarah's background, which was not in education but in computer sciences. As part of instructional strategies consists of efficacy in content, Sarah could have scored higher in this area because of her experience and feelings of efficacy in the field of computer science before beginning teaching the subject. On the other hand, Sarah also made mention of a high level of support from her employment in which they encouraged and provided extensive training to prepare her to teach. This would include training in teaching strategies and techniques, also a large portion of Efficacy in Instructional Strategies. Additionally, since Sarah was relatively new (four years) she had received that instruction

relatively recently so perhaps our instruction has gotten better in recent years for preparing new teachers. Or perhaps, it was still fresh information to her which she could immediately apply to her classroom instruction. As a reminder, Sarah stated, "I was teaching the same time I was learning to teach." As for the four sources of efficacy, Sarah scored highest in verbal persuasion (Rank # 5), although it was her second least referenced source of efficacy (n = 29). Sarah most frequently referenced mastery experiences (n = 35) during her interview, her third highest score on the SOSI (Rank #14). Sarah's rank on vicarious experiences (Rank #13) and emotional/physiological states (Rank #27) were vastly different, but she referenced them equal amounts during her interview (n = 25).

In summary, although some participant scores seemed to be supported by the number of references they made during the interview, there was not a consistent pattern for most of the scores. The caveat to this is mastery experiences, which consistently ranked higher and was referenced more often by most of the participants. In fact, mastery experiences was the only score from the TSES or the SOSI that all five interview participants also made the most references. Of the TSES scores, four of the five participants made the most references to Efficacy in Instructional Strategies, suggesting higher feelings of efficacy in this section of TSE.

Chapter 5: Discussion

Summary of Study

Restatement of Research Problem

Justice-involved juveniles are a special population of students who disproportionately have disabilities, come from poverty, are minorities, have mental illness, and/or have significant academic and behavioral deficits (Houchins et al., 2010). Despite legal mandates (e.g., ESSA, IDEIA, JJDPA) to ensure an equal education as compared to non-justice-involved peers, we are consistently falling short of the mark (Froemel, 2020; NDTAC, 2015). There is limited literature on education of juveniles in correctional facilities (Developmental Services Group, Inc., 2019) and Teacher Self-Efficacy (TSE). Yet, to improve outcomes for this group of students, it is vital we identify feelings of efficacy of educators of justice-involved juveniles. Through Social Cognitive Theory and the tenant of reciprocal determinism we know the interplay between teacher and student has a significant impact on learning (Bandura, 1986). Further, we know educators with higher TSE tend to have students with higher self-efficacy, which translates into greater persistence in the face of adversity, setting higher goals, greater goal attainment, and higher level of academic task complexity (Luszczynska et al., 2005). Therefore, we need to identify ways teachers in this setting gain their feelings of efficacy. For this reason, this study attempted to identify the characteristics of current juvenile correctional educators and their feelings of efficacy for working with justice-involved populations. Additionally, I explored the relation between demographic characteristics and TSE, as well as demographic characteristics and the four sources of efficacy (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states).

Specific Research Questions

I attempted to identify patterns or themes in educators of justice-involved juveniles demographic characteristics and relationships to Teacher Self-Efficacy through the following research questions.

(1) Are there common patterns or themes in demographic characteristics of this group of correctional educators of justice-involved juveniles?

(2) How do educators of justice-involved juveniles score on Total Teacher Self-Efficacy and the three types of TSE (Efficacy in classroom Management, Instructional Strategies, and Student Engagement) as measured by the Teacher Sense of Efficacy Scale (TSES)?

(3) Do demographic characteristics have any relation to TSES Total or types of efficacy scores of educators of justice-involved juveniles?

(4) How do educators of justice-involved juveniles score on the four sources of teacher self-efficacy (mastery experiences, vexperiences, verbal persuasion, and emotional/physiological states) as measured by the Sources of Self-Efficacy Inventory (SOSI)?

(5) Do the four sources of efficacy as measured by the SOSI, have any relation to TSES scores of educators of justice-involved juveniles?

(6) How do educators of justice-involved juveniles in special settings perceived and define influential components of mastery experience, social persuasion, verbal persuasion, and emotional/physiological states that affect, or have affected, affected their attainment of TSE?

(7) To what extent do educators of justice-involved juveniles in special settings perceive the four sources of efficacy (mastery experience, vicarious experiences, verbal persuasion and emotional/physiological states) to have affected their efficacy?

Summary of Major Findings

The following sections will discuss the findings from this mixed-methods explanatory sequential study. I will begin discussing population descriptives, followed by nonparametric correlation and statistical analysis regarding demographic characteristics, TSE as measured by the Teacher Sense of Efficacy Scales (TSES), and sources of self-efficacy (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) as measured by the Sources of Self-Efficacy Inventory (SOSI). I will then discuss findings from the qualitative, or interview, portion of the study in light of the quantitative results to provide a cohesive picture of how educators of justice-involved juveniles see themselves in terms of TSE and how they might have gained their TSE.

Summary of Demographic Characteristics

From the descriptive analysis of the survey, participants' demographic characteristics indicated a slightly higher proportion of males (48.9%) to females (39.8%). More than half of respondents were aged between 31-40, and about a fourth were 21-30. Most respondents were white (79.3%) and not Hispanic (70%). About a quarter of participants had a bachelor's degree (26.4%) and slightly less than a quarter reported having a master's degree (19.8%). Most respondents reported backgrounds in education (25%) or special education (15.5%). Additionally, about 23% of respondents reported having combination discipline backgrounds with a mix of education and/or special education and social work, law, or counseling. Only one person of 88 reported having emergency certification. This particular group of respondents were relatively novice teachers with about 40% reporting having only 1-3 years of teaching experience, and 36.8% reporting having 4-10 years of teaching experience. The numbers were relatively the same for teaching experience working with justice-involved juveniles with 48% reporting 1-3 years, and 36.8% reporting having 4-10 years

of experience. Most respondents worked with students between the ages of 10-11 (35%) or between 12-17 (45.9%), and the greatest number worked with both female and male gendered students (75%). Almost half of respondents reported teaching multiple content areas (42%). Slightly more than one third reported teaching ELA subjects (34.9%), and about one quarter reported teaching multiple subjects (27%). Caseload numbers indicated many educators had nine to fifteen students they supervised, and most had between six and nine students per class (33%). The largest proportion of participants had received justice-involved juvenile specific training through employment (40%) or coursework (30%). In contrast, about 10% reported having received no juvenile justice specific training.

Summary of TSE Descriptive Statistics

I conducted descriptive analysis of the respondents' scores on the TSES. I used the constructs defined in the TSES (Tschannen-Moran & Woolfolk Hoy, 2001) to measure the three aspects of efficacy (e.g. Efficacy in Classroom Management, Efficacy in Instructional Strategies, Efficacy in Student Engagement). This allowed me to observe the distribution of scores across each scale score. I also used descriptive analysis to describe the distribution of this group of participants' feelings of how they gained their efficacy by observing scores on the four sources of efficacy (e.g. mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) as measured by the SOSI. I will begin with descriptive statistics of the three types of efficacy.

As a group, the survey participants felt relatively confident in their classroom management abilities. They appear to feel more efficacious in terms of general management, such as procedures and routines versus being able to calm or control disruptive students. Overall, this group feels slightly less efficacious in Instructional Strategies than Classroom Management.

They appear to feel more efficacious in teaching strategies than in individualizing for different groups or individuals. As a whole, this group of educators scored lowest on the third component of the TSES, Efficacy in Student Engagement. They were slightly more efficacious in general student engagement than with engaging and encouraging children at-risk of failure.

Summary of SOSI Descriptive Statistics

The SOSI is an unpublished scale designed to measure the four sources of self-efficacy as posited by Bandura (e.g., mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states), and is based in the Tschannen-Moran & Woolfolk Hoy framework containing the three components of TSE (e.g., Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement).

As a group, these educators scored highest on verbal persuasion sources of efficacy, with slightly higher mean rank scores on verbal affirmations than social learning experience. The second highest-ranked source of efficacy was mastery experiences. Respondents appear to have greater gains in self-efficacy in relation to positive experiences than negative experiences. These educators ranked vicarious experiences as the third most influential source of efficacy. Survey respondents appear to have slightly higher mean group rankings in positive experiences in which they observe someone succeed at the specified task, rather than negative experiences where they observe the mistakes another makes. These teachers scored lowest on emotional/physiological states as a source of efficacy with much higher rankings on positive than negative emotional/physiological states.

Summary of Correlation Analysis

I used Kendall's Tau-b to observe possible correlations between demographic variables and TSE scores. I also used Kendall's Tau-b to observe possible correlations between TSE (as

measured by the TSES) and the four sources of efficacy (as measured by the SOSI). There were weak correlations between gender and TSES scores, and student's gender and TSES scores. There were slightly stronger correlations between age and TSES scores, education level and TSES scores, years of teaching experience and TSES scores, student age and TSES scores, and content area and TSES scores.

The Kendall's Tau-b test for TSE and the four sources of efficacy indicated moderately strong positive correlations between mastery experiences, vicarious experiences, and verbal persuasion scores. These indicate that as scores on TSE get higher, there is a tendency for mastery experience, vicarious experiences, and verbal persuasion scores to also go up.

Summary of Nonparametric Statistical Analysis

I used the Kruskal-Wallis nonparametric one-way analysis of variance to compare demographic characteristics across TSE. There were significant differences in scores for gender with females having higher rankings. There were also differences in age, with younger teachers (21-30) ranking lower than those with significantly more life experience (51-60). There were also indications that those with higher levels of education (e.g., master's degree) feel more efficacious than those with lesser degrees (some college). The same was true for years of teaching experience with those having more experience (4-10 years) ranking higher than those with fewer years of experience (1-3 years). There were also differences in student age groupings with educators teaching younger students ranking lower than educators with slightly older students. Educators who taught multiple subjects or from multiple content areas ranked higher on TSE than educators who taught one subject, particularly those teaching academic only or vocational/transition skills only. Finally, there were significant differences in subject area and

TSES, although this only related to educators of science who were ranked lower than educators of social studies/government/geography.

Classroom management and demographic variables were very similar to the Kruskal-Wallis for TSE and demographic variables. Again, females had higher rankings, older educators were ranked higher, and educators with master's degrees scored higher than those with some college. The same findings were found in content and subject areas and mastery experiences and the same variables and TSE. The main difference between findings of TSE and classroom management was a significant difference in educators who taught male only and those who taught both genders, with those teaching both genders being ranked higher.

Similar to the previous two Kruskal-Wallis analysis, there were significant differences in instructional strategies and gender, education level, and content area. However, that was the limit of significant differences for Efficacy in Instructional Strategies and demographic variables. In contrast, the Kruskal-Wallis and the third TSES construct, Efficacy in Student Engagement found only one variable with significant ranking differences. As with the previous constructs, gender was significant with females outranking males and other genders.

I also ran the Kruskal-Wallis test on the four sources of efficacy and demographic variables. With mastery experiences, only three variables indicated significant differences. The first was discipline area where teachers who taught both academic and social skills were ranked higher than those who taught vocational/transition skills only. Those who taught science ranked higher than those who taught ELA. Educators who taught both genders were also ranked higher than those teaching only males.

There were no significant differences in group mean rankings on the Kruskal Wallis test on vicarious experiences and demographic characteristics or verbal persuasion and demographic

characteristics. However, there were significant differences in emotional/physiological states and demographic characteristics. Educators who identified as other genders ranked higher than either male or females on this source of efficacy. Teaching experience also seemed to have some relation to emotional/physiological states, as those with more experience ranked higher than those with no experience. Lastly, there were significant differences in class size group mean rankings with educators of smaller class sizes (6-9) exhibiting less experiences with emotional/physiological states than those with slightly more students (10-12).

In order to examine differences between self-efficacy scores while controlling for interrelationships of the three components of TSES (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement), I used the Friedman test. As with previous tests, females scored higher than males on all three areas of the TSES. Additionally, it appears that as age increases so too do scores, most particularly classroom management scores. Both classroom management and instructional strategies scores tended to increase with age and with education level. There were also significant differences found in setting (e.g., alternative school, juvenile minimum-security facility) and Efficacy in Instructional Strategies, with those being in slightly more restrictive settings exhibiting lower levels of efficacy. It appears that educators working from multiple content areas and/or multiple subject areas have greater feelings of TSE than those who teach single subjects, in particular those teaching single academic subjects or teaching vocational/transitional skills. Further, educators who taught life skills/community-based skills and educators who taught social skills were ranked lower on Efficacy in Instructional Strategies while science and math teachers appeared to feel least efficacious in classroom management.

The Friedman test for the four sources of self-efficacy and demographic variables found similar differences to previous analysis. There were differences in gender on verbal persuasion with other genders scoring highest, followed by females. Both male and female respondents had higher emotional/physiological state experiences than those of other genders. There were differences in emotional/physiological states and educators with greater numbers of years of teaching experience in special settings ranking higher than those with fewer years of experience. There were differences in content area and subject area and mastery experiences, with those teaching multiple subjects or from multiple content areas ranking higher than single subject academics or vocational/transition skills. Science and mathematics teachers had the lowest mastery experience scores based on group mean rankings. Educators of both genders ranked higher on mastery experiences, vicarious experiences, and verbal persuasion experiences than educators of male only or female only students. The Friedman test also indicated a significant difference in case size and verbal persuasion, although I could discern no pattern. The test for the four sources of self-efficacy and class size suggested that teachers with larger class sizes had higher rankings on emotional/physiological states.

Summary of Qualitative Analysis

In the following section I will briefly remind the reader of the qualitative analysis results. I will begin with a brief description of participants followed by a summary of interview references made about TSE, the three components of TSE, and the four sources of efficacy.

The participants consisted of four females and one male. They were all older than 30, with three between the ages of 31-40. Three had master's degrees and two had bachelor's degrees. Three had backgrounds in special education. Three had more than 10 years teaching experience and two had between 4-10 years of experience. All five reported teaching multiple

content areas and multiple subjects. All participants taught students 12-17. Two additionally taught 10-11 year old students and one taught 18 and older juveniles as well. Three participants reported having both genders of students while two reported teaching male only students. Case sizes (nine to more than 20) and class sizes (less than nine) were relatively small. Three participants indicated receiving professional development specific to justice-involved juveniles.

Results from qualitative analysis indicated a total of 229 references to TSE and 620 references to at least one of the four sources of efficacy. The educators with higher TSE references had master's degrees, backgrounds in special education, more than 11 years of teaching experience, and worked in lower-security level environments. They also taught academic and other content areas. This is in contrast to educators teaching vocational or transition skills, who had fewer references to TSE. Participants who taught multiple genders of students and those who worked with multiple age groupings had higher references to TSE. Within the realm of classroom management, these participants most often referenced the structure of their classroom over the culture they tried to exhibit. Within Efficacy for Instructional Strategies, the three educators who reported receiving population-specific training made more references, most particularly in efficacy of provision of content matter over teaching techniques or strategies. Notably, the educator with the least experience in teaching appears to have developed much of her efficacy through her previous career field in computer sciences enabling her to feel efficacious in teaching computer sciences and digital literacy. Lastly educators from multiple disciplines and a background in education made more references to student engagement, with much of their experiences being related to juveniles with disabilities and/or justice-involved juveniles.

Of the four sources of efficacy, mastery experiences were mentioned most frequently with the majority of these referring to past teaching experiences or past experiences with justice-involved juveniles. Emotional/physiological states was the only source of efficacy that I couldn't clearly delineate three top scorers because the third place was a tie. It was also the second most referenced source of efficacy, where this group of educators appears to have developed efficacy more through positive feelings and personality traits. In contrast, negative feelings, such as frustration with lack of materials, contributed much less to efficacy development. verbal persuasion and vicarious experiences were the least referenced sources of efficacy. I could find no discernible trends or patterns in demographic characteristics for either source of efficacy. However, themes that emerged during analysis of verbal persuasion included support from family and friends, work related supports, support from students, and societal expectation. This group of educators made more references to support from work and to a lesser extent supports from students. Themes that emerged during analysis of vicarious experiences were formal classes or coursework, literature, and observations of others. Within this source of efficacy, educators made more references to observations of other teachers versus efficacy gained through formal classwork or literature.

Summary of Quantitative and Qualitative Mixing

Comparing data gathered from quantitative with data from qualitative methods, allowed a level of triangulation for the results. Although some participant scores seemed to be supported by the number of references they made during the interview there was not a consistent pattern for scores other than mastery experiences. There were frequent contradictions in scores and in references made during interviews. However, when viewed together, these data suggest mastery

experiences have a significant effect on feelings of TSE, but not to the exclusion of the other three sources.

Interpretations and Significance

The following section will review significant findings from this study, while situating findings in light of current statistics and literature. This section will also contain implications and suggestions for future research and applications.

Research Question 1

RQ1 Are there common patterns or themes in demographic characteristics of this sample of correctional educators of justice-involved juveniles?

This sample of educators had characteristics comparable to national average demographics for public educators, but there were a few areas of note. The US national average teacher's age is largely between 30-49 (56.9%; McCain, 2023), similar to the respondents in this population who reported more than half (56.5%) were between 31-40. This group of participants largely had graduate degrees consistent with national averages of 50% masters' degrees and 39% with bachelor's degrees (McCain, 2023). Although there were no national statistics for subject or content area of educators of justice-involved juveniles, from the systematic literature review (see Chapter 2) fourteen studies reported on the degree field. Of these, only one study (7%) did not include special education as a degree field. These findings are supported from the results found in this study where about 40% of the respondents reported backgrounds in special education. This is significant because of the intersectionality of disability and incarceration in which a significant number of disabled people are segregated from society through a variety of institutions (Bixby et al., 2022). There is perhaps no other group of teachers who would be better

prepared to work with youth who have a myriad of complex issues that affect their learning than educators with backgrounds in special education. Therefore, teacher education programs, particularly those with focused coursework on correctional education, should consider integrating special education techniques and strategies into their course design.

Although similar to national averages of educators and racial groupings where most educators are white (80%; McCain, 2023), so too were the majority of this population of educators (79.3%). Even though this sample had similar racial make-up to the national average, the significance of limited numbers of educators from minority backgrounds cannot be ignored. Bandura suggested, as part of the reciprocal nature of learning, that we can gain efficacy though Vicarious experiences, or watching someone else succeed or fail (Bandura, 1986). Even more effective is when the person we are observing is most like ourselves (Bandura, 1986). A large portion of justice-involved juveniles come from racial minority groups (50% expected to increase by 2050; OJJDP, 2022). This means to have the greatest effect on these students, they need the opportunity to learn from peoples with similar backgrounds or ethnic and cultural histories. The lack of minority educators is a documented deficit in education, one that we have attempted to circumvent through focused recruitment efforts (Villegas & Irvine, 2010). Even so, we continue to have a preponderance of white educators (80%; McCain, 2023). This may be why white males' misbehaviors are disproportionately identified as related to learning or behavioral disorders, whereas a male from a minority group is more likely to be considered a troublemaker and disciplined accordingly (Bryan, 2017). This inequality in disciplining of minority males by primarily white teachers is indicative of the school-to-prison pipeline (Bryan, 2017). Teacher preparation programs need to better prepare educators to be cognizant of the tendency for white

teachers to target, particularly Black male students, for subjective disciplinary practices often for minor infractions (Bryan, 2017).

A striking difference from current literature and the results of this study was in the number of educators identifying as male and those identifying as female. The national average suggests a preponderance of female educators (75%; McCain, 2023). However, this sample of educators of justice-involved juveniles had slightly more male educators (48.9%) than females (39.8%). This was true of my population but situated within findings from the systematic literature review (70.1% female) this was not generally true of educators of justice-involved juveniles. Although this sample is not representative of all educators of justice-involved juveniles, it still resonates with something said during Jennifer's interview. Jennifer made note of the difficulties of being a female in a primarily male world (particularly as she taught at a male only facility). She stated, "They're gonna try to get the best of you. Especially, if you're female, uh, if you're female in a male atmosphere. They're gonna try to walk all over you. The staff and the residents. You gotta be bigger than they are." This dialogue introduced gender differences as a topic, one that was largely overlooked by the other interview participants.

In comparison to national averages where 29% of educators had 3-9 years of experience and 37 had 10-20 years of experience (NCES, 2022) this was a relatively novice group of educators. This group of educators fell more in line with the findings from the literature review on educators of justice-involved juveniles where educators with three to ten years were in the majority. This participant group had between one and three years of teaching experience (40.2%), with only slightly fewer respondents having between four and ten years of teaching experience (36.8%). This suggests these educators are relatively new to their positions, suggesting teachers may not stay in this environment for long periods of time. This is seen in

how often the interview participants spoke of needing to take care of their own mental health and emotional needs. Additionally, this is a high-needs population. Research in special education suggests teachers in this field burn out and have high levels of attrition (Billingsley & Bettini, 2019). Justice-involved juveniles frequently have special education needs, diagnosed or undiagnosed disabilities which suggests these educators, who are already under the stress of a highly structured environment where many of the staff involved have safety as a priority versus education, may have even more stressful variables that lower their ability to maintain levels of efficacy, which affects their retention. Additionally, most of the respondents from this sample (60%) reported having little to no training that was specific to justice-involved juveniles. A situation that was supported from findings of the systematic literature review, in which only 13% of the studies reported on educators receiving juvenile-justice-specific training.

Research Question 2 and Research Question 4

RQ2 How do educators of justice-involved juveniles score on Total Teacher Self-Efficacy and the three types of TSE (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement) as measured by TSES? RQ4) How do educators of justice-involved juveniles score on the four sources of teacher self-efficacy (mastery experiences, vicarious experiences, verbal persuasion, and emotional/physiological states) as measured by the SOSI?

I conducted descriptive analysis of the respondents' scores on total TSES and the three components of the TSES. Overall, this sample of educators of justice-involved juveniles feel moderately efficacious in total TSE (as measured by the TSES). Within the Efficacy in Classroom Management component, the group scored highest in general management of the classroom (e.g., procedures and routines), and lower in their ability to manage disruptive or unruly students. This is interesting since one would assume a high level of misbehavior from a population of juveniles who

consistently misbehave, and thus would expect educators in this environment to be especially capable in managing disruptive behavior. It does make sense that these teachers would score relatively high on classroom management as it relays to structure and routines, which is inherent in the carceral environment itself.

This group feels slightly less efficacious in instructional strategies. Interestingly this sample felt more confident in their abilities to use techniques and strategies for effective teaching than in their ability to specialize their instruction in terms of providing individualized planning. The population of students that educators of justice-involved juveniles are working with need highly individualized and focused instruction and related services (Ferguson, 2013). Therefore, it is concerning these teachers feel less competent in this area. The lack of efficacy in instructional strategies could be related to a lack of training that is specialized to correctional education. In their study of educators of justice-involved juveniles, Flores (2020) reported dissatisfaction with the adequacy of undergraduate programs to prepare educators to work in the correctional facility and further suggested special training programs for teachers going into correctional education.

Within student engagement, the group appear to feel more efficacious in providing general encouragement and guidance to students than to encouragement and engagement of children who are at-risk of failure. Again, the population of students these educators work with are frequently failing in academics (Houchins et al., 2010), which makes it concerning these educators do not feel as efficacious in their ability to work with special populations as they do in other areas. One possible reason this group of educators feels slightly less efficacious in student engagement is the context they are teaching. This is a highly transient group of students when considering the average length of stay is 27 days at a detention facility (OJJDP, 2022). Children who have been adjudicated and placed in secure facilities may spend a few weeks or up to a year depending on the level of the offense (OJJDP,

2022). This means these educators in these facilities may not have enough time with many of these students to develop the type of relationship they feel they need to make lasting change in students' lives. Current literature on effective teaching practices indicates the importance of developing relationships with students. For instance, in a phenomenological study on 35 K-12 educators, thematic analysis indicated students are more motivated to learn when strong relationships are formed (McKay & Macomber, 2023). This was supported through the interview portion of this study, where several of the interviewees spoke of the importance of developing relationships with this group of students before academic learning could begin. My recommendation is the continuance of diversionary practices that keep youth from being placed in a state or federal facility because once a juvenile has become involved with the justice-system, the process becomes about discipline, punishment, and public safety rather than education.

Of the four sources of efficacy, this population of educators scored highest on verbal persuasion, with verbal affirmations being their greatest source of efficacy. Within the scale items of verbal persuasion, their highest scored item related to gaining efficacy through coursework. This is encouraging for programs of teacher development, as much of the program is generally more coursework than formal observations or student teaching. In contrast these educators scored lowest on the scale item referring to gaining efficacy through comparison of their own ability to those of other teachers, or the social learning aspect of teacher preparation. This raises concerns about how well these educators were able to learn through watching other teachers to compare themselves to. This is significant in light that most teacher education programs have a significant portion of the program that is based on observing veteran teachers. Yet, this particular group of educators indicated this was not a way they often gained efficacy.

The second highest source of efficacy was mastery experiences. These educators appear to gain more feelings of competence based on positive experiences in which they feel successful at a given task. They appear to learn from negative experiences, or from making mistakes, to a much lesser extent. As learning by doing is one of the most effective ways to gain efficacy (Bandura, 1977) it is vital pre-service educators have ample opportunity to become successful. This suggests the need for teacher preparation programs to provide multiple opportunities for pre-service teachers to succeed.

Similar to the previous two sources of efficacy, vicarious experiences for these educators were more effective if they were positive versus negative experiences. Vicarious experience was the third lowest scoring source of efficacy for this sample of teachers. It is concerning these educators did not feel more efficacious in their ability to learn from observing other teachers, especially in light of the importance placed on observations in most pre-service training programs.

These educators scored lowest on emotional/physiological states, but in their interviews, the five participants made frequent references to this source of efficacy. Again, these experiences could be divided into positive and negative experiences, with positive experiences appearing to carry more weight. The educators in the interview portion of the study also made several references to personality traits they possessed that effected their ability to teach this high-needs population of juveniles. For instance, Emily spoke of a high level of self-determination, Heather spoke of being "slow to anger," and Jennifer had said "you gotta be bigger than they are" in reference to gender biases in the detention-facility environment. Taken together this suggests educators of justice-involved educators may possess innate personality traits and a passion for working with this group of students which contributes to their feelings of efficacy.

Research Question 3 and Research Question 5

RQ3) Do demographic characteristics have any relation to TSES Total or types of efficacy scores of educators of justice-involved juveniles? RQ5) Do the four sources of efficacy as measured by the SOSI, have any relation to TSES scores of educators of justice-involved juveniles?

Correlation analysis indicated significant positive correlations between teacher self-efficacy scores and gender, age, education level, years of teaching experience, student age, student gender, and content area. To further explore these variables, I ran analysis of variance tests to determine differences in TSES and SOSI scores across demographic variables. I will now present these findings and situate them within current literature on Teacher Self-Efficacy.

Current research suggests correlations between teacher self-efficacy and gender vary across studies. For example, Wolters and Daugherty (2007) found gender to have a significant impact on teacher self-efficacy and Shakat et al. (2013) reported females scored higher on efficacy beliefs in teaching students with disabilities. In contrast, Anderson (2003) found no significant correlation in gender and TSE of educators of justice-involved juveniles. Within the systematic literature review (See Chapter 2), the studies reporting on gender of educators of justice-involved juveniles had a preponderance of female participants (70%). However, my group of participants, had a higher percentage of respondents who identified as male. It was also interesting that none of the studies from the review included genders other than male and female. I attempted to include a wide range of genders in my study, first by including a list of 11 gender choices (male, female, transgender, gender neutral, non-binary, agender, pangender, genderqueer, two-spirit, third gender, or other) in the survey component. Even so, there were only nine participants who identified as a gender other than male or female. For the ease of analysis, I organized my genders into male, female, and other gender. Even so, I attempted to include other genders where it doesn't appear this was an included option in the literature I reviewed. In terms of gender and TSE scores, females consistently scored higher than

males. Even considering the bias female educators in correctional facilities most likely face, they still scored higher on TSE than males in my population. This is in line with Shakat et al. (2013) who found female educators to have higher self-efficacy than males for working with a special population of students, such as those with disabilities.

Research suggests age may be a predictor of TSE (Gkolia et al., 2014). The systematic literature review (see Chapter 2) indicated many educators in the field of juvenile correctional education is largely over forty. This could suggest that as a group, these educators are older and have more life experiences than educators in other environments. This would suggest that educators with more mastery experiences would be more successful as an educator in juvenile corrections than would younger educators. However, these findings conflicted with national teacher averages where the greatest population (56.9%) of teachers are between 30 and 49 years of age (McCain, 2023), and results from this study where most of the respondents were between 31 and 40. More research is needed to explore differences in educator age and teacher self-efficacy for working with special populations such as justice-involved juveniles.

Current literature also suggests years of teaching experience has a significant influence on TSE. For instance, Klaseen and Chiu (2010) found a relationship between years of teaching experience and self-efficacy, with educators in initial or mid-career phases scoring higher than educators in the later stages of their career. In contrast, Wolters and Daugherty (2007) found only a modest effect on teacher self-efficacy beliefs based on teaching experience in their study of 1024 educators. Regardless, there is suggestion that an increase in teaching experience correlates with higher feelings of efficacy. National teacher averages suggest almost 70% of educators have between three and 20 years of experience (NCES, 2022). This held mostly true for the educators in this study, although they were on the lower end of the range of teaching experience. My group of participants

were mostly novice teachers, having less than 10 years of teaching experience, a situation supported by the systematic literature review in which almost half of the educators had three to 10 years of experience. This suggests educators who work with justice-involved juveniles may have less experience than the average teacher. This is concerning, because of the high needs of this population of students (Houchins, et al., 2010) which suggests a need for educators with high levels of efficacy. This is supported by previous findings that this group of students are frequently being underserviced and undereducated because many of the educators in this field do not have the experience needed to be successful with such high-needs students. Also, since burn-out is a frequent concern with special education teachers (Billingsley & Bettini, 2019) the additional environmental stress of a correctional environment suggests educators may not stay in these positions for long periods of time, which could be reflective of the relative inexperience of this group of educators.

There has been little research into teacher education level, student age and gender, or content area as it is related to TSE, therefore I will situate these variables within information from the systematic literature review on educators of justice-involved juveniles (See Chapter 2). It seems counterintuitive that TSE scores would be tied to educational level, however it doesn't appear to be as clear cut as that. The analysis in this study only found significant differences between groups who reported having "some college" versus those who had a master's degree. This makes sense as one would expect a person with more education to have more success in education. The problem however is in who this population of educators are that are reporting their highest level of education as "some college." There is undoubtedly a teacher shortage, particularly a critical need for retaining special education teachers (Cook & Boe, 2007; McLeskey & Billingsley, 2008; Nichols et al., 2008). Therefore, these educators with some college could be educators with other expertise that has allowed them to be emergency certified. This doesn't line up however, because only two survey participants

reported being emergency certified, and even with emergency certifications it is standard for a required bachelor's degree. These findings do not include educators who were technically trained or certified in an area such as machine operation training, as they were included in a separate grouping. So, are we so desperate for teachers we are taking highly underqualified educators to teach in this high-needs area? If so, we can agree with Development Services Group (2019) who suggested this population of juveniles do not receive equitable education to peers who are not involved with the justice system. More research is needed in this area to further identify the education levels of correctional educators in juvenile justice.

Based on the literature in the review there are suggestions that most educators in this area are working with a combination of elementary and secondary students. This is supported within the sample of educators in this study who primarily work with students between the ages of 12-17, although it is important to note a large portion of the respondents who worked with multiple age groupings. The literature from the review did not include the gender of students, but this study found educators who work with both genders of students have higher scores than those who work with one gender only.

It is interesting to note the differences in content area across TSE scores and SOSI scores. For instance, the areas with lowest scores were in educators who taught academics only and those who taught vocational/transition education. There are a couple of possibilities for why this could be true. Within the content area groupings, were also groups most often associated with more significant disabilities such as life skills/community-based skills. Educators who work with students with more extensive needs may feel more efficacious overall in their ability to provide varied instruction to address multiple student needs. Whereas educators who teach academic content only may not be working with students with more extensive needs. Therefore, their expertise may be more in the

academic content they teach than an overall feeling of expertise in teaching. The lower scores for educators who teach vocational/transition skills only is intriguing. vocational/transition skills development is a required part of special education postsecondary preparation (Prince et al., 2013). Even so, it is a relatively infant area of education development and educator preparation. Perhaps the newness of the field has some relation to the lower scores as we are still developing best practices in this area. However, we cannot minimize the importance of vocational/transition skills to the life-long success of students with disabilities (Prince et al., 2013). As there are a concerning number of incarcerated juveniles with disabilities (Houchins, et al., 2010), developing teacher self-efficacy in this area is vital.

Research Question 6 and Research Question 7

RQ6) How do educators of justice-involved juveniles in special settings perceive influential components of Total Teacher Self-Efficacy, the three components of TSE (Efficacy in Classroom Management, Efficacy in Instructional Strategies, and Efficacy in Student Engagement), and the four sources of efficacy?RQ7) To what extent do educators of justice-involved juveniles in special settings perceive the four sources of efficacy (mastery experience, vicarious experiences, verbal persuasion, and emotional/physiological states) to have affected their efficacy?

The participants in the interview portion of the study made the most references to instructional strategies, suggesting their perception of its importance along with their feelings of efficacy in this area. In contrast, they scored second in this area of TSE on the survey. It is important to note that although three of the five interview participants had received specialized training specific to the juvenile-justice population, two had not, yet they still frequently referenced instructional strategies and feeling competent in this area. One of these did not have a degree, or background, in education but in a different field entirely. The skills and efficacy she gained during her prior career was

transferred to her confidence in her ability to teach that subject to students, culminating in high feelings of efficacy, as demonstrated by her TSES scores. This suggests that part of teaching self-efficacy relies on content knowledge, rather than simply knowing effective teaching techniques.

For the most part, participant references to teacher self-efficacy and sources of efficacy did not match closely with their survey scores. Intriguingly, mastery experiences was the exception and the only highly ranked score for which participants also referenced it frequently. This suggests the impact of mastery experiences on the teacher self-efficacy of this group of participants. This is in line with Bandura's suggestion that mastery experiences may be the most powerful of the four sources of efficacy (Bandura, 1977). Further, this group appears to gain more feelings of efficacy from positive interactions they view as successes rather than learning from their mistakes or the mistakes of others, which they seem to view as negative interactions.

In contrast this group of educators did not appear to gain much of their feelings of efficacy from vicarious experiences, their lowest scoring source of efficacy. This is a concerning result, as a large portion of teacher preparation involves teacher observation and book learning about what does or doesn't work for other teachers with similar students. This suggests this particular group of educators are largely gaining efficacy through multiple opportunities for mastery experiences, which is a limited portion of teacher preparation programs. It is also interesting to note that during interviews when asked about development of efficacy in teaching, only one person referred to their practicum teaching experience. This could suggest the other interview participants did not find as much value in the practicum experience, although one would think the opportunity to develop skills through mastery experiences would be highly beneficial particularly in light of their high scores in mastery experiences. Their exclusion of the practicum experience could suggest their actual practicum did not give them feelings of preparedness to work with this high-needs population of

juveniles. In light of these findings, teacher preparation programs should consider adding multiple opportunities for mastery experiences, particularly in working with special populations of youth who have a variety of academic, emotional, and behavioral needs.

Implications and Recommendations

Findings from this study have significant implications for the development of highly qualified educators working with justice-involved juveniles in special settings. In this study, group variances suggest females with more life experiences, higher levels of education (e.g., master's degree), and more teaching experience scored higher on TSE. Educators with experience teaching multiple content or multiple subjects also scored higher on TSE. Therefore,administrators of facilities for justice-involved juveniles should strive to hire educators with these characteristics. Further, to ensure teachers with high efficacy are being hired to work with this high-needs population of students, administrators could also use the TSES as a screening tool and the three strands of the TSES to identify areas for professional development.

It is important to note the research-to-practice gap that was evident in this study. The demographic characteristics of the sample population did not match national statistics or the systematic literature review (see Chapter 2). National statistics suggest the population most likely to be in an educator role, and thus most researched, is white, female, 30-49 years of age, with 10-20 years of teaching experience. However, this does not match the population in my study. Additionally, the average demographics of educators is vastly different from the demographics of the juvenile justice population and national racial breakdowns. Increased efforts to recruit and retain diverse populations of educators are needed, as are professional development opportunities on culturally responsive practices.

The group of educators in this study appeared to feel less efficacious in working with special populations, despite moderately high scores in overall efficacy. For instance, the group felt moderately efficacious in classroom management, however, they felt less able to manage disruptive or unruly behavior. They also felt less able to individualize instruction for groups or students' needs, and less able to engage children who are struggling with academics or behaviorally. Based on the characteristics of this population of students, educators of justice-involved juveniles need more training in behavior management to address lower feelings of efficacy in classroom management of disruptive students. They also need training in differential instructional strategies and scaffolding learning tasks based on individual needs, to improve feelings of efficacy in instructional strategies. Lastly, educators of justice-involved juveniles need training in strategies to encourage and engage students who are significantly behind peers in academic, social, and behavioral skills.

This group of participants consistently had lower scores in vicarious experiences, which is especially concerning due to the emphasis on this source of efficacy in most pre-service educator programs. For instance, much of pre-service educator coursework and observations would fall under vicarious experiences, with significantly less on mastery experiences through practice teaching experiences. If pre-service educators were to have gotten most of their feelings of efficacy from their university coursework and observations, they should have higher scores in vicarious experiences than in the other three sources of efficacy. However, this was not true of this group of educators of justice-involved juveniles. In contrast, despite the proportionally smaller portion of pre-service education programs spent on mastery experiences (e.g., student teaching experiences), this group of educators gained more feelings of efficacy from this source than the other three sources. This suggests the need to provide extensive opportunities for

mastery experiences, which need not be limited to student teaching experiences. Role play and engaging in simulated scenarios can serve as mastery experiences, with successful completion of tasks leading pre-service educators to have stronger beliefs in their capabilities. Further, role play enables efficacy input from more than one source. Not only are there opportunities for efficacy development through mastery experiences, but also through vicarious learning while watching the instructor modeling desired behaviors and skills. Simulated scenarios and role play have the advantage of enabling pre-service educators to experience a variety of teaching activities as they relate to different student groupings and environments.

Limitations

This study had several potential shortcomings and constraints related to generalizability, data collection and analysis, researcher attributes, and contextual concerns. For instance, purposive sampling is helpful in targeting a specific population but limits the generalizability of the findings beyond the selected group of educators in special settings for justice-involved juveniles (Creswell & Creswell 2018; Creswell & Plano Clark, 2018). In addition, collected demographic characteristics may not encompass the full diversity of educators in special settings which affects the broader application of this study's results to a more diverse educator population (Creswell & Creswell 2018; Creswell & Plano Clark, 2018). This could be especially true in this study where there were small sample sizes for both the quantitative and the qualitative portions. Small sample sizes can lead to findings that may not reflect the true properties of the sample being studied and make it challenging to draw valid conclusions powerful enough to identify significant relationships (Rubin, 2012).

There were also considerable problems with the survey and bot interaction. Every effort was made to exclude survey respondents whose demographic or answers to survey questions

seemed questionable by following guidelines provided by Shaw et al. (2024). However, there is no guarantee all of the included survey respondents met the inclusion/exclusion criteria for being included in the study. Another aspect to recognize is that the study relies on self-report measures, which can introduce response bias and social desirability effects (Creswell & Creswell, 2018). This might influence the accuracy of the data collected, particularly in terms of individual self-efficacy levels and experiences. Additionally, while quantitative data analysis will provide insight into relationships and patterns, it may not capture the depth and nuances of participants' experiences and perceptions (Creswell & Creswell 2018; Creswell & Plano Clark, 2018). This could limit the comprehensive understanding of the complex factors influencing TSE.

The focus of this study was on sources of high TSE. The author did not gather data on variables contributing to low TSE, which further limits findings. Additionally, qualitative data findings are context-specific and might not be directly transferable to other settings or populations (Creswell & Creswell 2018; Creswell & Plano Clark, 2018). The study's qualitative phase focused on a specific group of educators working with justice-involved juveniles, which potentially limits the broader implications of the qualitative results.

A final consideration is the influence of the researcher on findings. There is a potential for researcher bias during data collection, coding, and interpretation (Creswell & Creswell 2018; Creswell & Plano Clark, 2018). Although the researcher attempted to involve additional researchers in coding and analysis to alleviate such bias, there are likely residual effects of researcher bias. Further, the study's scope and depth were influenced by the researcher's expertise and perspective which limited comprehensive coverage of all potential aspects (Creswell & Creswell 2018; Creswell & Plano Clark, 2018).

Conclusion

Educators of justice-involved juveniles are an under-researched group. This study sought to identify common characteristics possessed by these educators, particularly in relation to teacher self-efficacy and this population's feelings of competency in teaching students involved with justice system who traditionally exhibit high levels of need. Findings suggest this group felt moderately efficacious in providing educational services in a setting designed for justice-involved juveniles. Additionally, based on this group of educators, there is suggestion that we cannot separate learning based solely on mastery experiences without taking into account the learning that is also occurring via other sources of efficacy. As Tschannen-Moran and Woolfolk Hoy indicated through their article, research, and development of the Teacher Sense of Efficacy Scale (TSES), Teacher Self-Efficacy is indeed an elusive construct to define. Even so, it is one we must continue to learn about in order to best prepare future generations of educators.

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* denotes inclusion in systematic literature review Chapter 2

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Appendices

Appendix A.1.

IRB Approval

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Exempt from IRB Review – AP01

Date: October 12, 2023 **IRB#:** 16485

Principal Investigator: Wendy R Mitchell

Approval Date: 10/12/2023

Exempt Category: 2

Study Title: Exploration of Factors Influencing Teacher Self-Efficacy in Educators of Justice-Involved Juveniles in Special Settings: An Explanatory Sequential Mixed-Methods Study

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor**.**
- Notify the IRB at the completion of the project**.**

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

Aimee Franklin, Ph.D.
Chair, Institutional Review Board

Appendix A.2.

Participant Consent

Consent to Participate in Research
University of Oklahoma

Would you like to be involved in research at the University of Oklahoma?

I am Wendy Mitchell from the Educational Psychology Department, and I invite you to participate in my research entitled *Exploration of Factors Influencing Teacher Self-Efficacy in Educators of Justice-Involved Juveniles in Special Settings: An Explanatory Sequential Mixed-Methods Study*. This research is being conducted at the Norman OU campus through an online survey. You were selected as a possible participant because the target population is educators who have, are currently, or are planning to teach in special setting schools for juveniles involved with the juvenile justice system. S*pecial setting schools for juveniles involved with the juvenile justice system* are being defined as separate school settings that address elementary, middle, and/or secondary grade level students with (a) behavioral problems, (b) who are at-risk for juvenile justice involvement, (c) who are unable to benefit from regular school due to behavior, or (d) are detained or incarcerated. You must be at least 18 years of age to participate in this research.

Please read this document and contact me to ask any questions you may have BEFORE agreeing to participate in my research.

What is the purpose of this research? This research aims to identify the characteristics of educators working in specialized settings designed for justice-involved youth. Additionally, it will explore the relation between demographic characteristics and teacher self-efficacy (TSE), or a teacher's perceptions of their ability to teach. Factors influencing TSE for teachers of youth in special settings associated with the juvenile justice system will be examined.

How many participants will be in this research? About 200 people will take part in the survey portion of this research. About 8 people will take part in the interview portion.

What will I be asked to do? If you agree to be in this research, you will complete a 10-15 minute online survey. Survey questions include multiple choice and Likert-type scales. Participants who are selected for the second phase, the interview portion, will be interviewed by the PI regarding their feelings of teacher self-efficacy and the acquisition of such feelings.

How long will this take? Your participation in the online survey will take approximately 10-15 minutes. If you are chosen to participate in the second phase, the interview portion will be approximately sixty minutes in length, with a follow-up session of up to 30 minutes as needed for clarification and member checks.

What are the risks and benefits if I participate?

Audio or video recorded data collection: There is a risk of accidental data release if we collect your data using audio and video recordings. If this occurred, your identity and

statements you made would become known to people who are not on the research team. To minimize this risk, the researchers will transfer data to, and store your data on, a secure platform approved by the University's Information Technology Office.

Collection of demographic or geographic location data that could lead to deductive re-identification: You will be asked to provide demographic information that describes you. We may also gather information about your geographic location in this research. Different combinations of personal and geographic information may make it possible for your identity to be guessed by someone who was given, or gained access, to our research records. To minimize the risk of deductive re-identification, we will not combine identifying variables nor analyze and report results for small groups of people with specific demographic characteristics.

Data collected online or by a device and transmitted electronically: You will be asked to (complete an online survey or describe the device they will use or wear) as part of this research. The organization hosting the data collection platform has its own privacy and security policies for keeping your information confidential. There is a risk that the external organization, which is not part of the research team, may gain access to or retain your data or your IP address which could be used to re-identify you. No assurance can be made about their use of the data you provide for purposes other than this research.

What are the benefits if I participate? There are no personal benefits to participating in this research.

Will I be compensated for participating? Survey participants will be eligible for one of 40 $25 Amazon gift cards to be given away through a drawing. Interview participants will be chosen from the pool of willing participants and will not receive $25 for the survey portion unless their name is drawn from the total pool of participants. Participants chosen for the interview portion will receive $50 compensation for approximately 60-90 minutes of their time (which is slightly higher than average hourly teacher pay in the United States). The original interview portion will be approximately sixty minutes in length, with a follow-up session of up to 30 minutes as needed for clarification and member checks.

Who will see my information? There will be no information in research reports that will make it possible to identify you. Research records will be stored securely, and only approved researchers and the OU Institutional Review Board will have access to the records.

You have the right to access the research data that has been collected about you as a part of this research. However, you may not access this information until the entire research has finished and you consent to this temporary restriction.

Do I have to participate? No. If you do not participate, you will not be penalized or lose benefits or services unrelated to the research. If you decide to participate, you don't have to answer any questions and can stop participating at any time.

Will my identity be anonymous or confidential? Your name will not be retained or linked with your responses unless you agree to be identified. Please check all of the options that you agree to:

I agree for data records to include my identifiable information. ___Yes ___ No

I agree to be quoted directly, without the use of my name. ___ Yes ___ No

I agree to have my name reported with quoted material. ___Yes ___ No

I agree for my research to be archived for scholarly and public access. ___Yes ___ No

What will happen to my data in the future?

We might share your de-identified data with other researchers or use it in future research without obtaining additional consent from you.

Audio Recording of Research Activities To assist with accurate recording of your responses, interviews may be recorded on an audio recording device. You have the right to refuse to allow such recording without penalty.

I consent to audio recording. ___Yes ___ No

Video Recording of Research Activities To assist with accurate recording of your responses, interviews may be recorded on a video recording device. You have the right to refuse to allow such recording. Please select one of the following options:

I consent to video recording. ___ Yes ___ No

Will I be contacted again? Following the survey, respondents may be contacted to participate in the interview portion of the research. The researcher might contact you to gather additional data or recruit you for new research.

I give my permission for the researcher to contact me in the future. ___Yes ___ No

Who do I contact with questions, concerns, or complaints? If you have questions, concerns, or complaints about the research or have experienced a research-related injury, contact me.

You can also contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu if you have questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than the researcher(s) or if you cannot reach the researcher(s).

I will be asking some questions to find out how you want me to report your ideas. You can refuse any that you do not like without any penalty.

Do you agree to being quoted directly, without the use of your name? ___ Yes ___ No

Do you agree for your data to be archived for scholarly and public access? ___Yes ___ No

Do you consent to audio recording? ___ Yes___ No

Do you consent to video recording? ___ Yes___ No

Your photographs for audio or video records may be used in University research reports unless you tell me not to do this.

May I contact you to gather additional data or recruit you for new research? ___Yes ___ No

Finally, would you like a printed or electronic copy of the information we have just reviewed?
_____ (note response)

Date of interview: _____

Name of Interviewee: _____

Mailing or Email address for electronic consent copy:
_____

Name of Researcher and Date of the Consent Process:
_____

Signature of the Researcher:
_____

Appendix A.3

Recruitment Flyer

Appendix A.4.

Sample Cold-Call Email

Dear _____,

I hope this email finds you well. I am a doctoral candidate at The University of Oklahoma. I am reaching out to request your valuable assistance and support in a research project that aims to explore and improve the training and preparation of educators working with justice-involved juveniles.

Educators of justice-involved juveniles face a unique set of challenges, but there is a notable gap in research regarding their characteristics and the factors that influence their perceptions of teaching efficacy. To address this gap, my dissertation project is designed to identify and explore the characteristics of this population to understand demographics, education levels, training and professional development, and Teacher Self-Efficacy (TSE).

To achieve this, I have developed a promotional recruitment flyer, approved by the University of Oklahoma's Institutional Review Board (IRB 16485) to be shared through relevant listservs and channels catering to educators, education administrators, juvenile justice administrators, juvenile justice educators, and correctional educators. I found this contact email through a search of the internet. I am attaching the promotional flyer with the link to the survey for your review. I want to emphasize that the study focuses solely on teachers' individual teaching efficacy and learning experiences. It will not reflect in any way on the United States' facilities, programs, or correctional systems.

I kindly request your support in forwarding the flyer to educators working with justice-involved juveniles in your state facilities. Your assistance in this endeavor will be instrumental in helping me collect valuable data to improve the training and support for educators in this field.

If you have any questions or require additional information, please do not hesitate to reach out to me. Your assistance in this research is greatly appreciated, and I look forward to your positive response.

Thank you for your time and consideration.
Sincerely,

Appendix A.5.

Survey

Please respond to each question as completely as possible.

Section I. Respondent Information

A. Background

1. What is your Gender Identity?
   - Male
   - Female
   - Transgender
   - Gender Neutral
   - Non-Binary
   - Agender
   - Pangender
   - Genderqueer
   - Two-Spirit
   - Third Gender_____
   - All
   - None
   - Other

2. What is your age level?
   - 21-30
   - 31-40
   - 41-50
   - 51-60
   - > 60

3. What is your Ethnicity (Categories developed in 1997 by the Office of Management and Budget (OMB)?

   A.
   - Hispanic or Latino
   - Not Hispanic or Latino

   B.
   - American Indian or Alaska Native
   - Asian
   - Black or African American
   - Native Hawaiian or Other Pacific Islander
   - White

4. What is your Education Level?
   - HS/HS Equivalence
   - Some College
   - Associate's Degree
   - Bachelor's Degree

□Master's Degree
□Doctoral Degree

5. What is your Degree Field?
□Education
□Special Education
□Social Work
□Law or Corrections
□Counseling
□Emergency or Alternative Certification
□Other (please specify)

6. What is your total years of teaching experience?
□0
□1-3
□4-10
□11-20
□ > 20

7. What is your total years of teaching experience in a special setting for justice-involved juveniles?
□0
□1-3
□4-10
□11-20
□ > 20

B. Demographics

8. In which state do you teach? _____

9. What is your school type?
□public-funded?
□private-for profit funded?
□charter?
□virtual?
□another school type? If so, what type? _____

10. Is your principal teaching assignment at
□an alternative school campus?
□a short-term detention campus?
□a juvenile minimum security confinement campus?
□a juvenile maximum security confinement campus?
□another setting? If so, what setting? _____

11. What age group do you currently teach? (Check all that apply)

□10 - 11 years
□12 - 17 years
□18 years and older

12. What content or curricular area are you responsible for implementing with students? (Check all that apply).
□Academic
□Vocational/Transition
□Social Skills Instruction
□Health/Physical Education
□Functional Life Skills/Community-Based Instruction
□Other (Please specify) _____

13. What is your primary subject area assignment(s)?
□Reading, Writing, Language Arts
□Mathematics
□Science
□Social Studies, Government, Geography
□ Mixed Subjects
□ Other (please specify)

14. What population of juveniles do you teach?
□Male only facility
□Female only facility
□Male and Female facility

15. How many total students are you directly responsible for teaching (caseload)?
□< 9
□9-15
□16-20
□> 20

16. Are your students most frequently taught using (Check all that apply):
□one-to-one instruction
□small group instruction
□whole group instruction
□individual seatwork

17. What is your average class size?
□< 3
□3-5
□ 6-9
□10-12
□ > 12

17. Have you had specific training that was designed to develop strategies for working with justice-involved
juveniles (mark all that apply)?

- None
- Yes, Employment-Related Professional Development
- Yes, Education Training at an Institute or University
- Yes, on my own (e.g., virtual sessions, webinars individually accessed)
- Yes, in another setting? If so, what setting? _____

Section II: Teachers' Sense of Efficacy Scale1 (long form)

Teacher Beliefs How much can you do?

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

	Nothing	Very Little	Some	Quite A Bit	A Great Deal
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)
7. How well can you respond to difficult questions from your students?	(1)	(2)	(3)	(4)	(5)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)

14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)

Section III: Items Contained on the SOSI

	Definitely not true for me	Somewhat not true for me	Neither true nor untrue for me	Somewhat true for me	Definitely true for me
1. I have had many positive opportunities to teach.	(1)	(2)	(3)	(4)	(5)
2. I remember clearly those times when I have taught groups well.	(1)	(2)	(3)	(4)	(5)
3. I have learned about how to be a teacher by watching other skillful teachers.	(1)	(2)	(3)	(4)	(5)
4. Listening to others talk about teaching gives me useful information on teaching.	(1)	(2)	(3)	(4)	(5)
5. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)
6. When I say the wrong things to a class, I become anxious.	(1)	(2)	(3)	(4)	(5)

7. Watching other teachers make mistakes has taught me how to be a more effective teacher.	(1)	(2)	(3)	(4)	(5)
8. I learn little about how to actually teach effectively from suggestions of others.	(1)	(2)	(3)	(4)	(5)
9. Often my attempts to teach children are not as successful as I would like.	(1)	(2)	(3)	(4)	(5)
10. The idea of being in a classroom as a teacher makes me nervous.	(1)	(2)	(3)	(4)	(5)
11. I have had meaningful opportunities to observe teachers in action.	(1)	(2)	(3)	(4)	(5)
12. The feedback I receive from others does not help me teach better.	(1)	(2)	(3)	(4)	(5)
13. I have learned a great deal from teaching in classrooms.	(1)	(2)	(3)	(4)	(5)
14. I get excited when I do something right to help a child learn.	(1)	(2)	(3)	(4)	(5)
15. My classroom observations are valuable to me.	(1)	(2)	(3)	(4)	(5)
16. When people I respect tell me I will be a good teacher, I tend to believe them.	(1)	(2)	(3)	(4)	(5)
17. I have made many mistakes when trying to teach children.	(1)	(2)	(3)	(4)	(5)
18. Educational textbooks and journal articles have helpful information on how to teach.	(1)	(2)	(3)	(4)	(5)
19. My fears of making mistakes affect my ability to teach.	(1)	(2)	(3)	(4)	(5)
20. I believe I can teach as well as the teachers portrayed in popular movies.	(1)	(2)	(3)	(4)	(5)
21. Feedback from other teachers is valuable to me.	(1)	(2)	(3)	(4)	(5)
22. When I make instructional mistakes, I am able to learn from the experience.	(1)	(2)	(3)	(4)	(5)
23. I have felt my heart beat faster or harder when I have done well with a lesson.	(1)	(2)	(3)	(4)	(5)
24. I often compare my own abilities to other teachers.	(1)	(2)	(3)	(4)	(5)
25. My coursework has helped me develop effective teaching strategies and skills.	(1)	(2)	(3)	(4)	(5)
26. I often wish that I had done things differently after teaching a lesson.	(1)	(2)	(3)	(4)	(5)

27. I have developed confidence in my own teaching by observing the mistakes that other teachers make.	(1)	(2)	(3)	(4)	(5)
28. I tend not to believe others when they tell me I will be a good teacher.	(1)	(2)	(3)	(4)	(5)
29. Teaching well gives me a positive sense of personal success.	(1)	(2)	(3)	(4)	(5)
30. When I see other teachers do poorly, I am able to learn how to teach more effectively.	(1)	(2)	(3)	(4)	(5)
31. The things I learn in course work does not help me be an effective teacher.	(1)	(2)	(3)	(4)	(5)
32. There have been opportunities for me to teach well.	(1)	(2)	(3)	(4)	(5)
33. When I have made mistakes teaching, I have felt my heart beat faster and harder.	(1)	(2)	(3)	(4)	(5)
34. I am able to improve my own instruction by noticing the errors that others make.	(1)	(2)	(3)	(4)	(5)
35.I often get important feedback from my professors about my teaching ability.	(1)	(2)	(3)	(4)	(5)

Final questions:

 I prefer not to provide my contact information.

 I would like to be considered for the gift card drawings and possible inclusion in phase II of the study with an opportunity for an additional gift card. Please provide your contact information here.

 I would like to be considered for the gift card drawing only. Please provide your contact information here.

Appendix A.6.

Permission to use TSES.

THE OHIO STATE UNIVERSITY COLLEGE OF EDUCATION AND HUMAN ECOLOGY

ANITA WOOLFOLK HOY, PH.D.

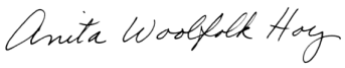
PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear Wendy Mitchell,

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy the scoring instructions can be found at:

http://u.osu.edu/hoy.17/research/instruments/

Best wishes in your work,



Anita Woolfolk Hoy, Ph.D.
Professor Emeritus

COLLEGE OF EDUCATION
29 WEST WOODRUFF AVENUE
COLUMBUS, OHIO 43210-1177

WWW.COE.OHIO-STATE.EDU/AHOY

PHONE 614-292-3774
FAX 614-292-7900
HOY.17@OSU.EDU

Appendix A.7.

Semi-Structured Interview Protocol

1. When you first began teaching in the specialized setting, did you feel prepared to meet the needs of your students?
    a. If so, what areas? What do you attribute your preparation to?
    b. If not, can you elaborate on what you did not feel prepared for (in the realm of instructional strategies, classroom management, or student engagement?
2. What kinds of training have you had that were justice involved specific, or specific to the special setting you are teaching?
3. Do you believe the training you received was sufficient to prepare you for working with this population?
4. What makes working with this population in this setting different than working in a non-specialized setting?
5. What is the best thing about working with this population in the special setting?
6. What is the worst thing about working with this population in the special setting?
7. What recommendations would you make to help prepare future educators working with justice-involved youth in special settings?

Appendix B: Correlation TSE and Demographics Scatterplots

Figure B.1.

TSE and Gender Scatterplot

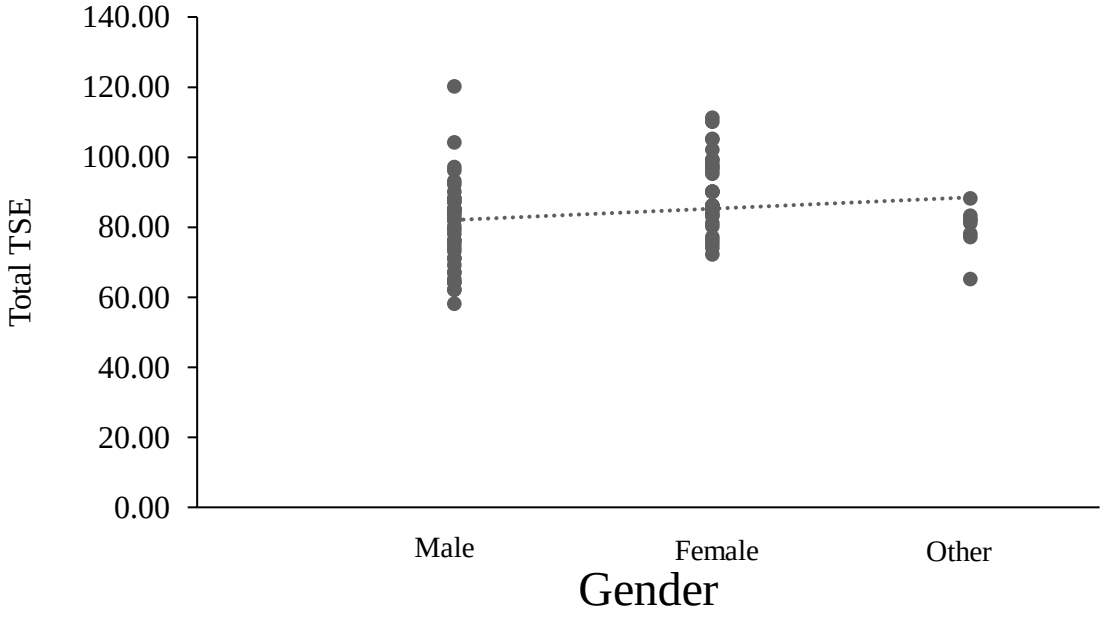


Figure B.2.

TSE and Age Scatterplot

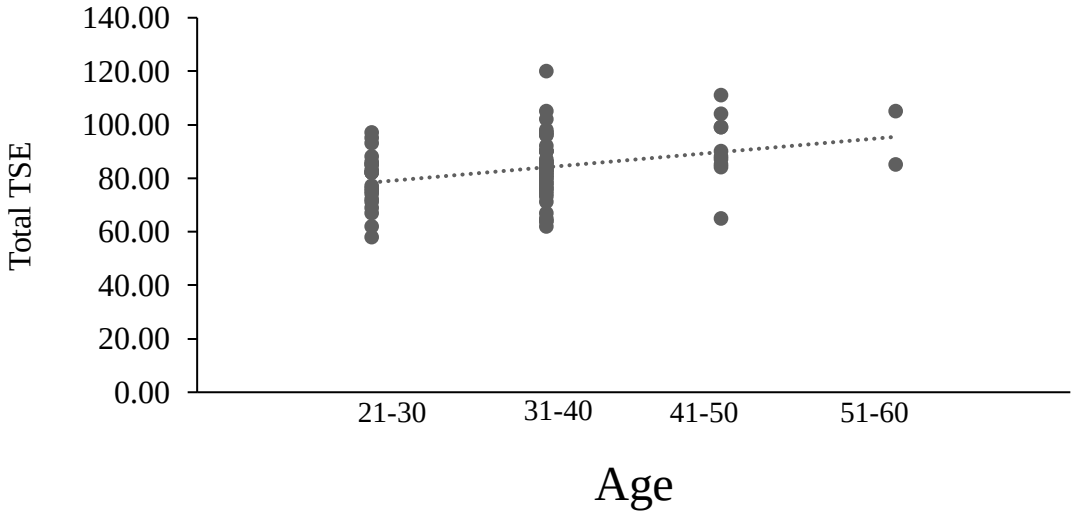


Figure B.3.

TSE and Race Scatterplot

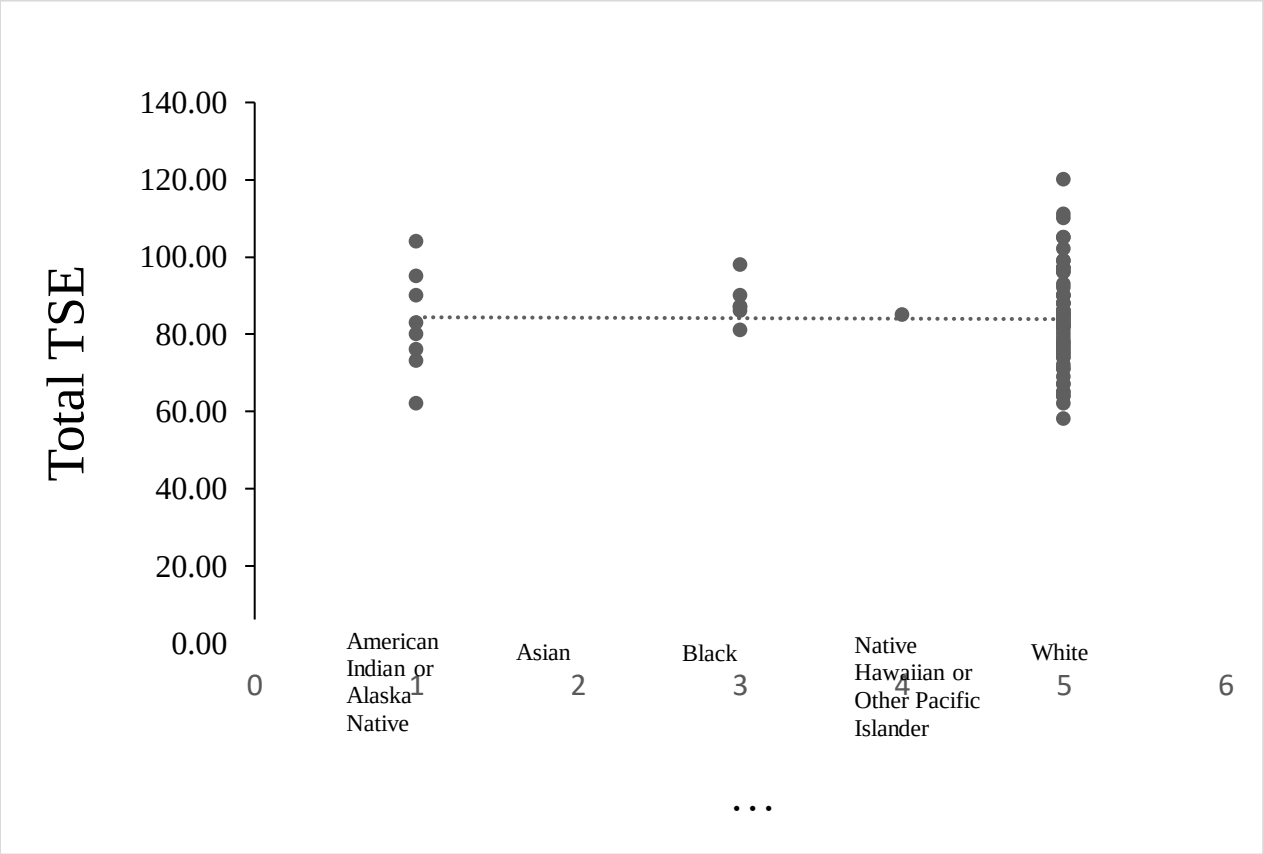


Figure B.4.

TSE and Education Level Scatterplot

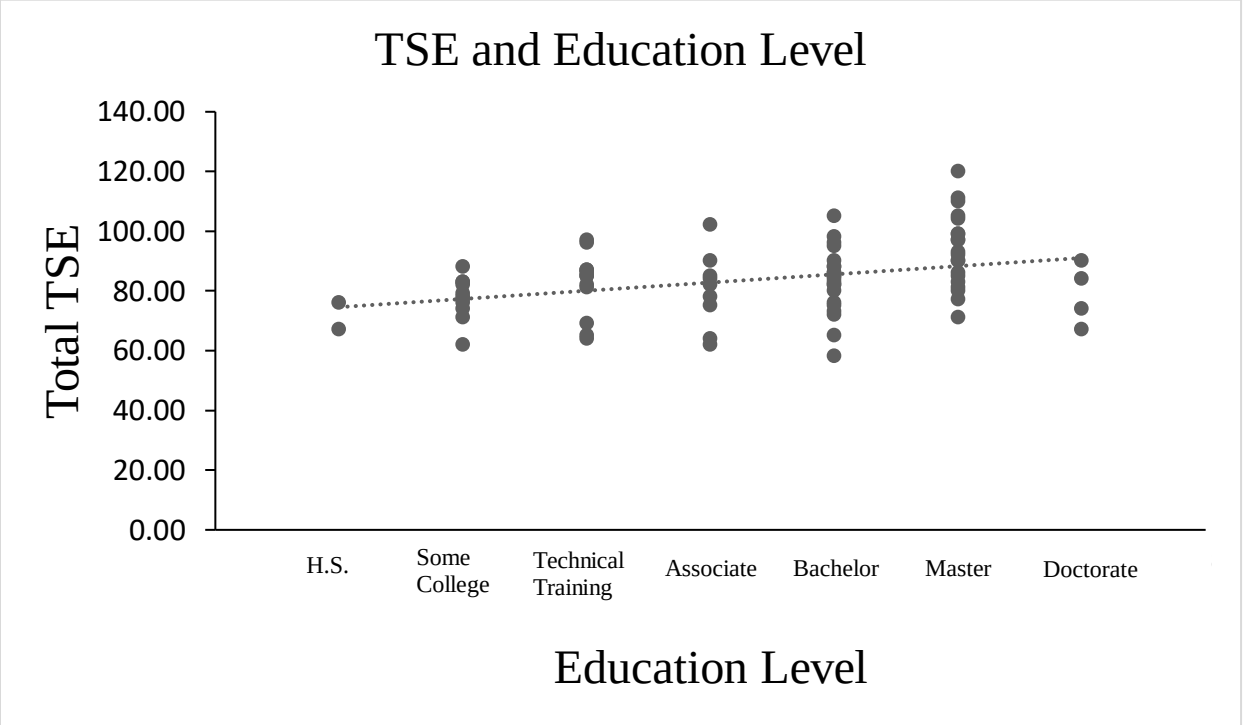
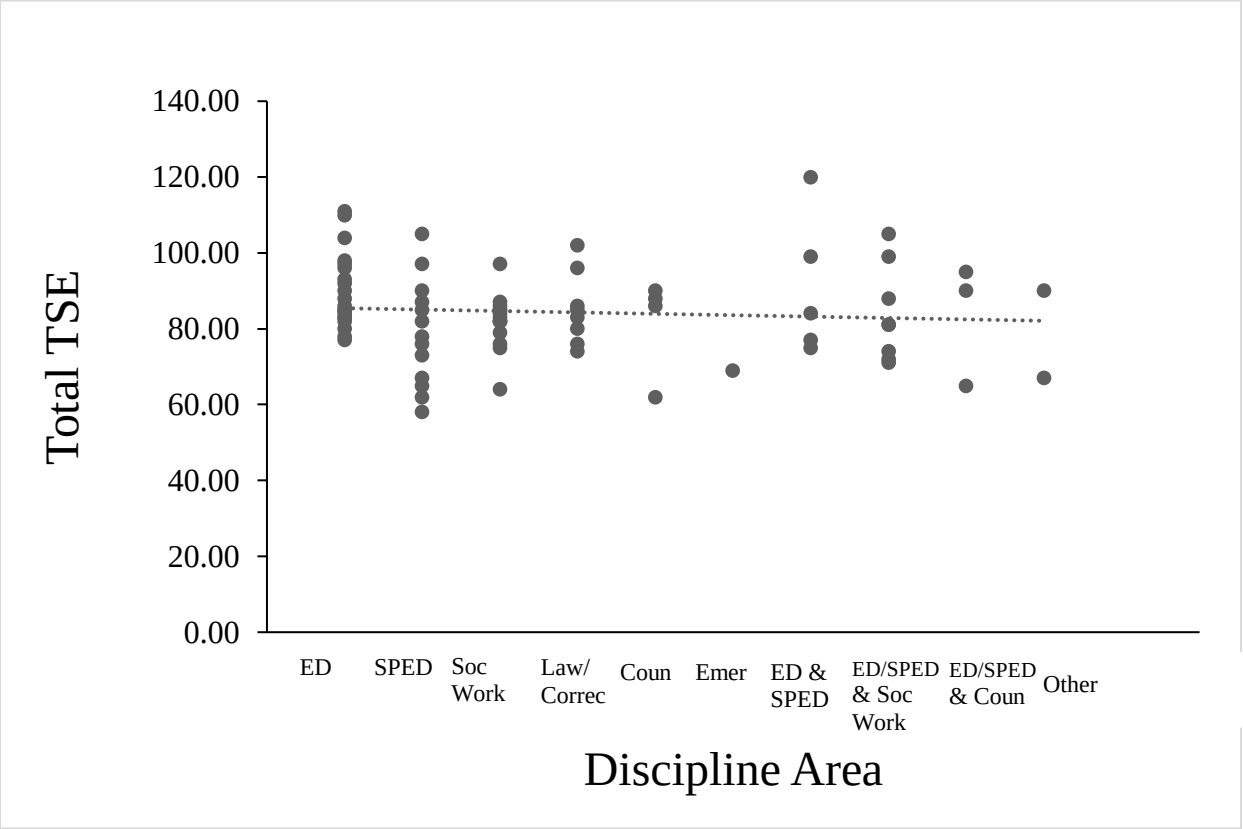


Figure B.5.

TSE and Discipline Area Scatterplot



Note: ED = education, SPED = special education, Soc Work = Social Work, Law/Correc = Law or Corrections, Coun = Counseling, Emer = Emergency Certification

Figure B.6.

TSE and Years of Experience Scatterplot

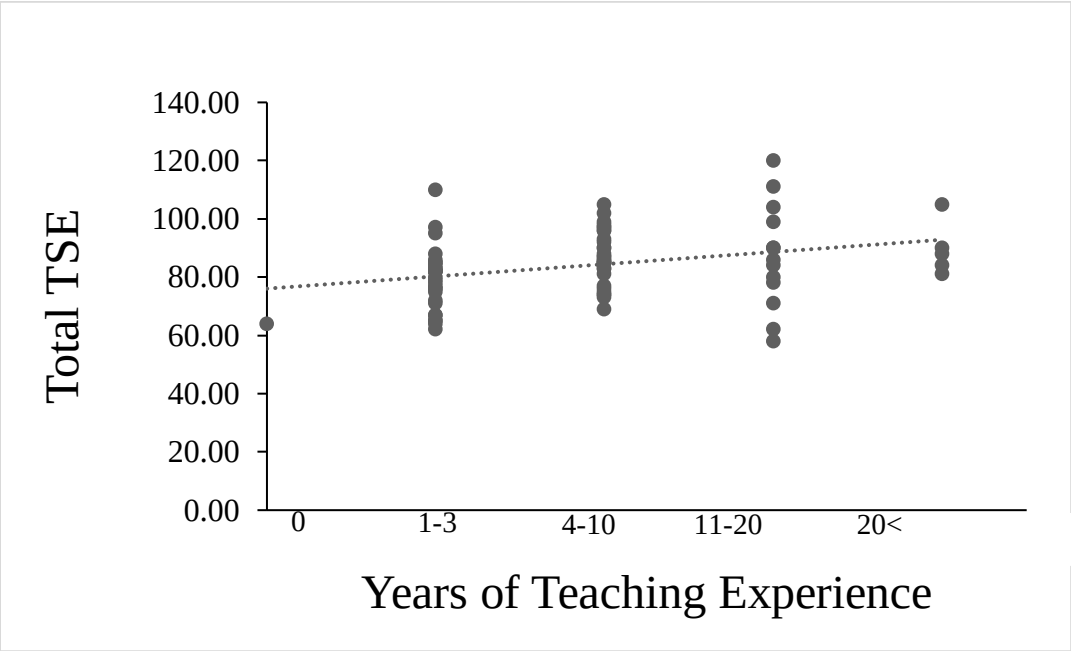


Figure B.7.

TSE and Years in Special Setting

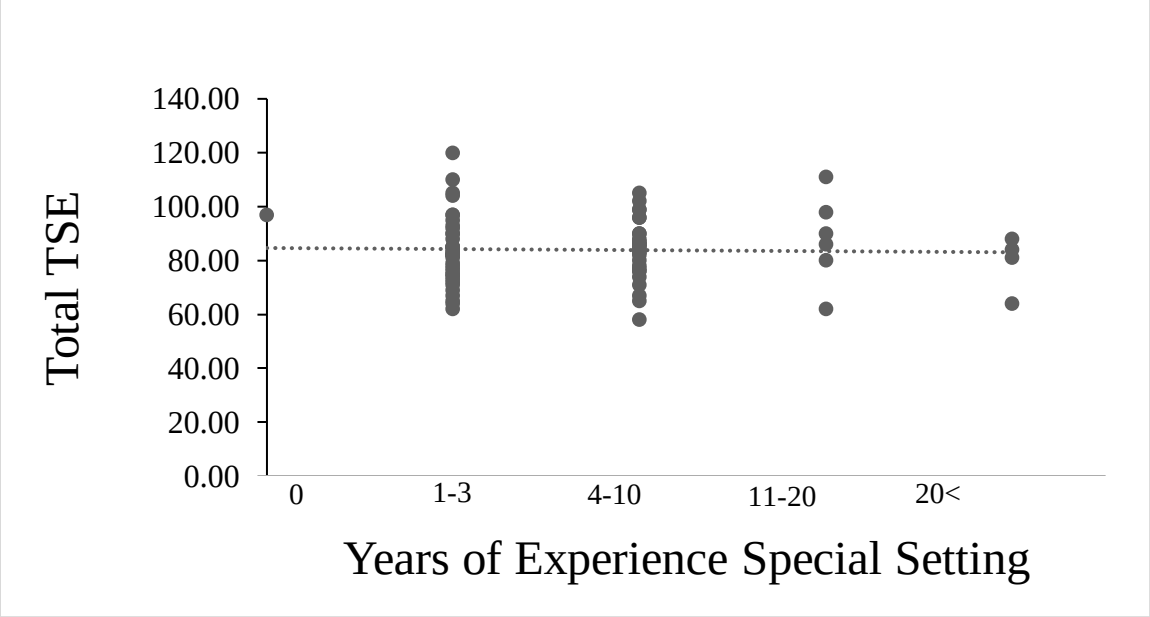
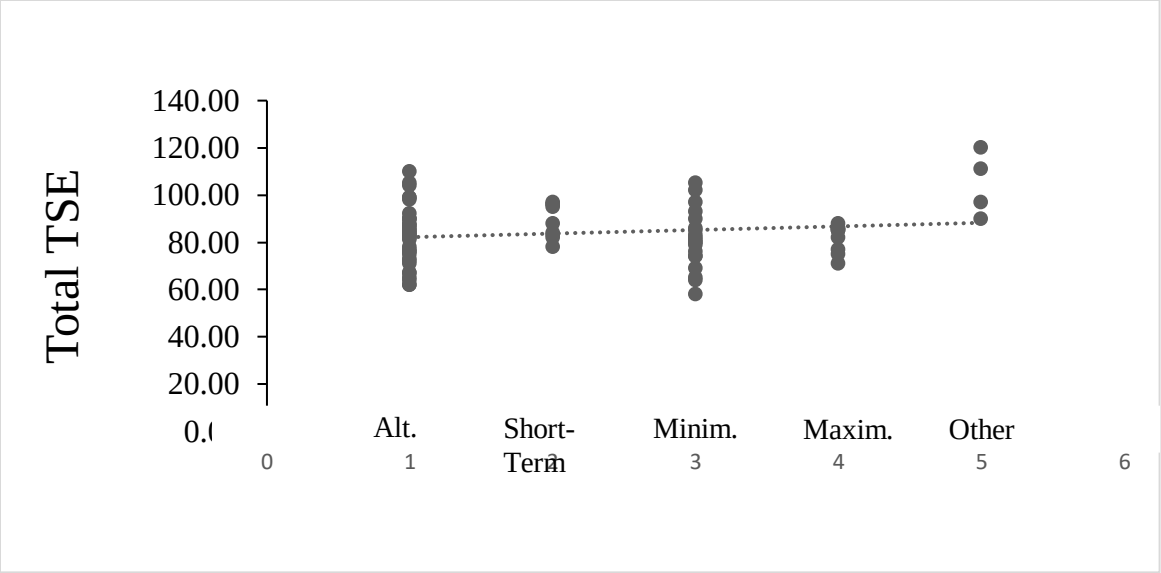


Figure B.8.

TSE and Teaching Setting Scatterplot



Notes: Alt. = Alternative Campus, Short-Term = Short-Term Facility, Minim. = Minimum Security Facility, Maxim. = Maximum Security Facility

Figure B.9.

TSE and Student Age Scatterplot

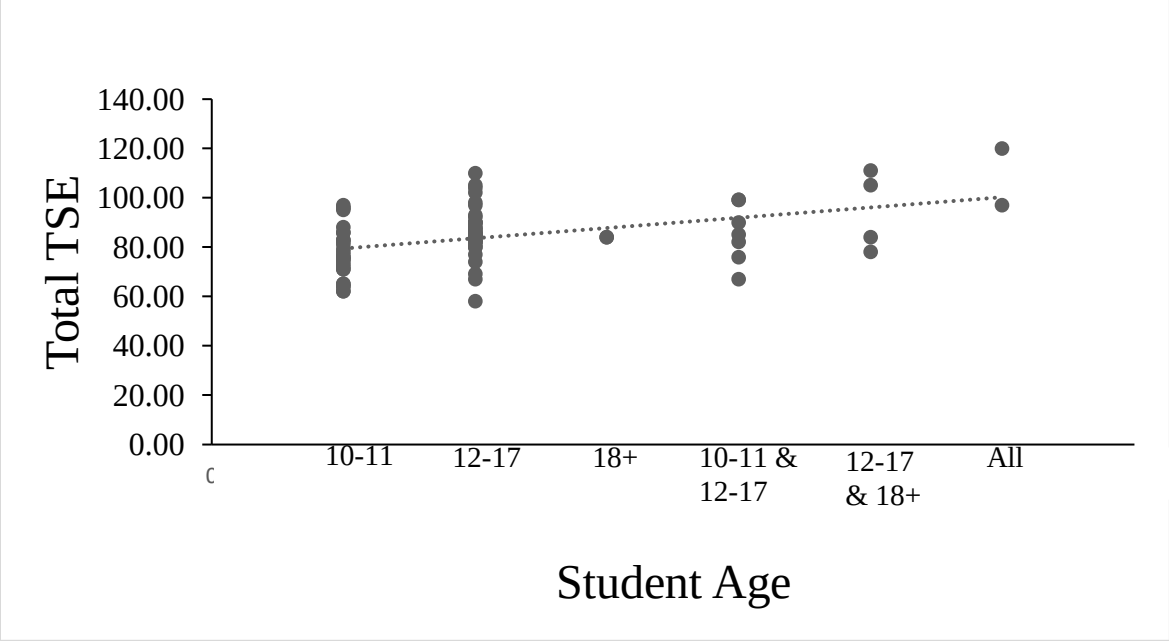


Figure B.10.

TSE and Student Gender Scatterplot

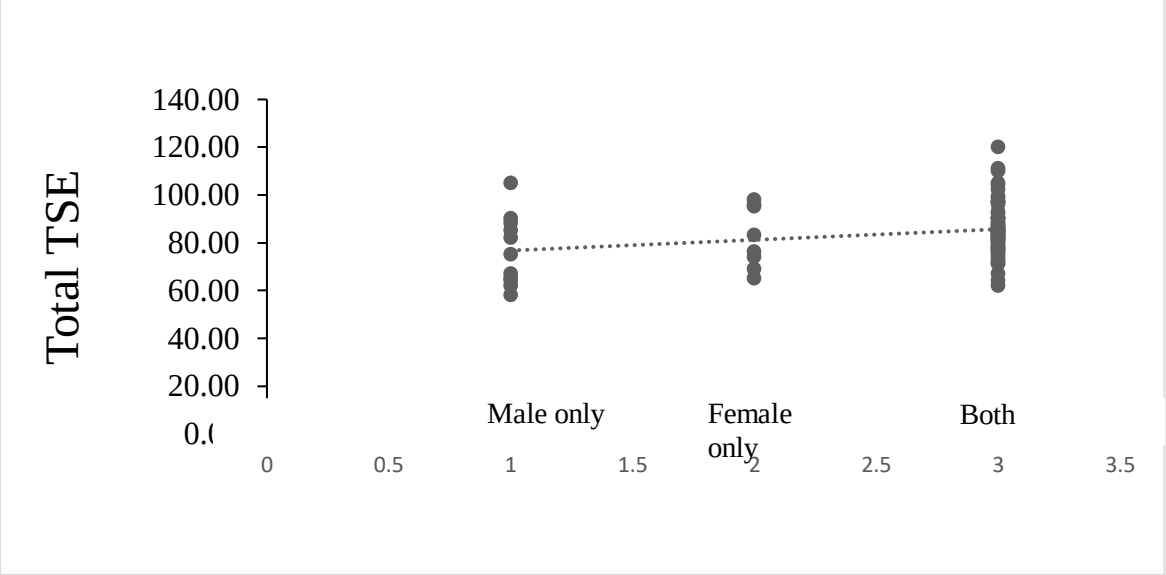
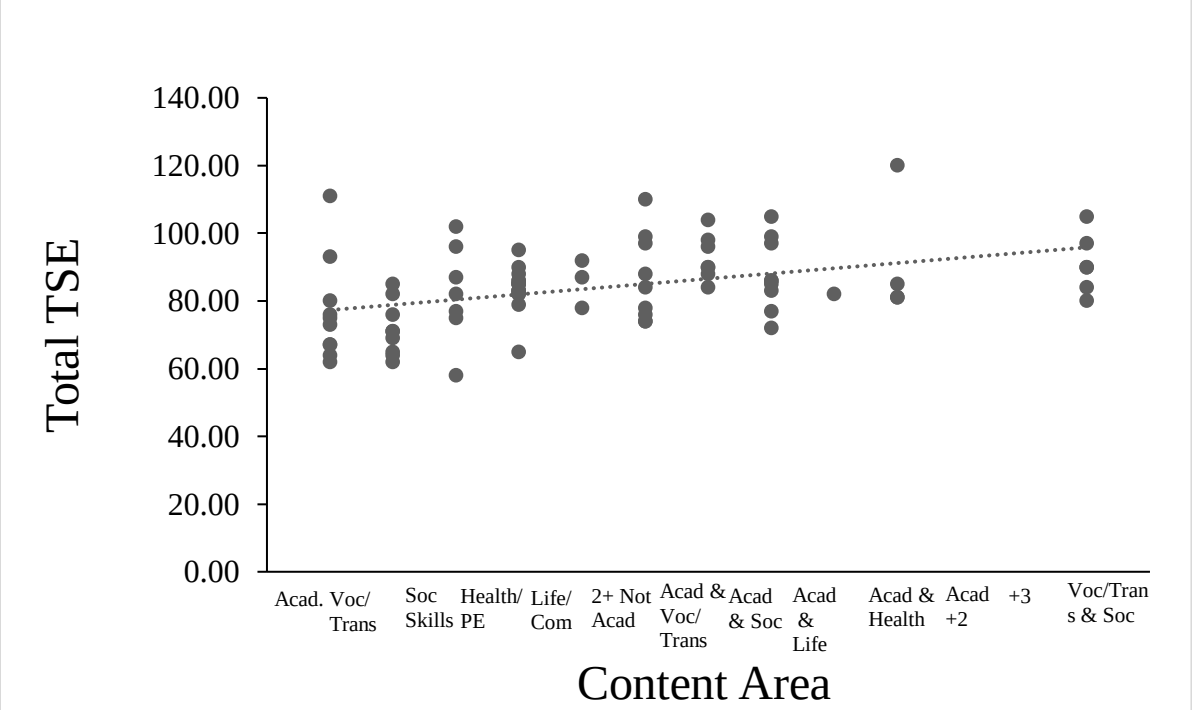


Figure B.11

TSE and Content Area Scatterplot



Notes: Acad = academic, Voc/Trans= vocational/transition, Soc Skills = social skills, Com = community-based

Figure B.12.

TSE and Subject Area Scatterplot

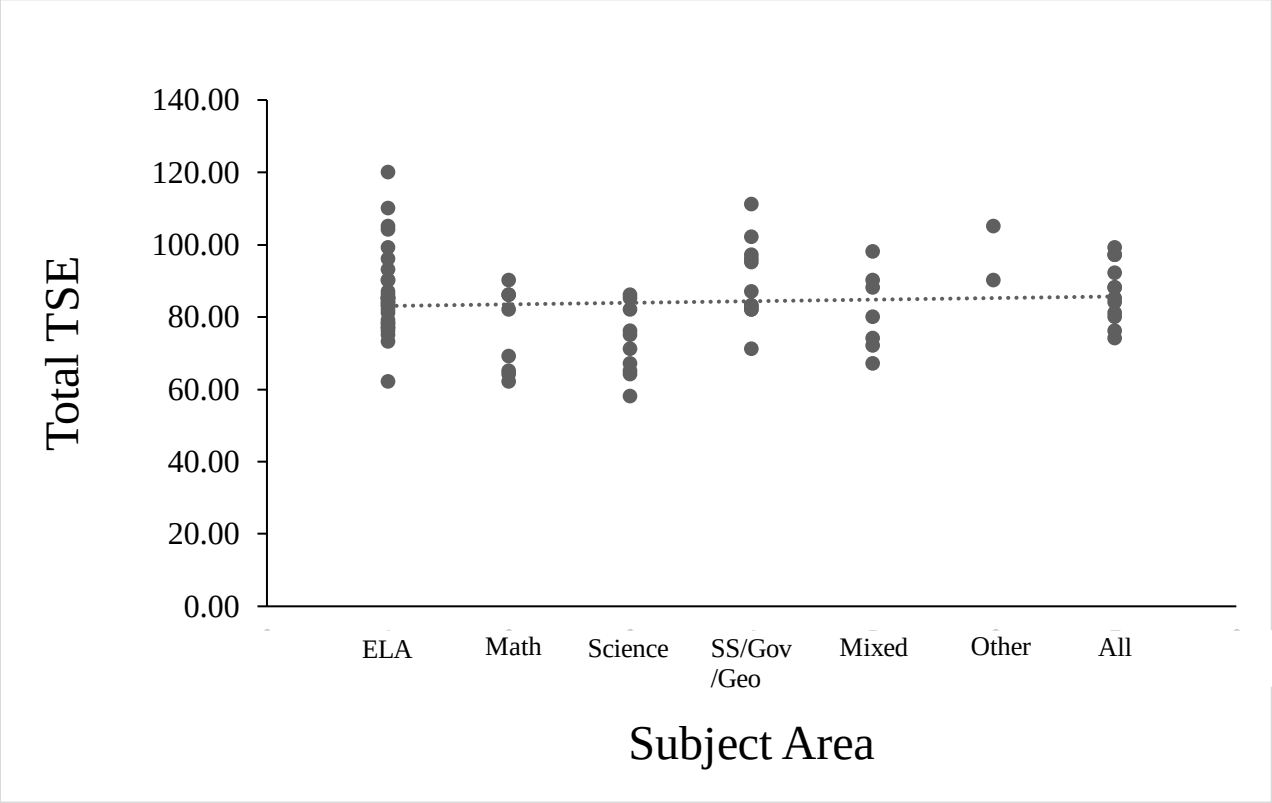


Figure B.13. *TSE and Caseload Scatterplot*

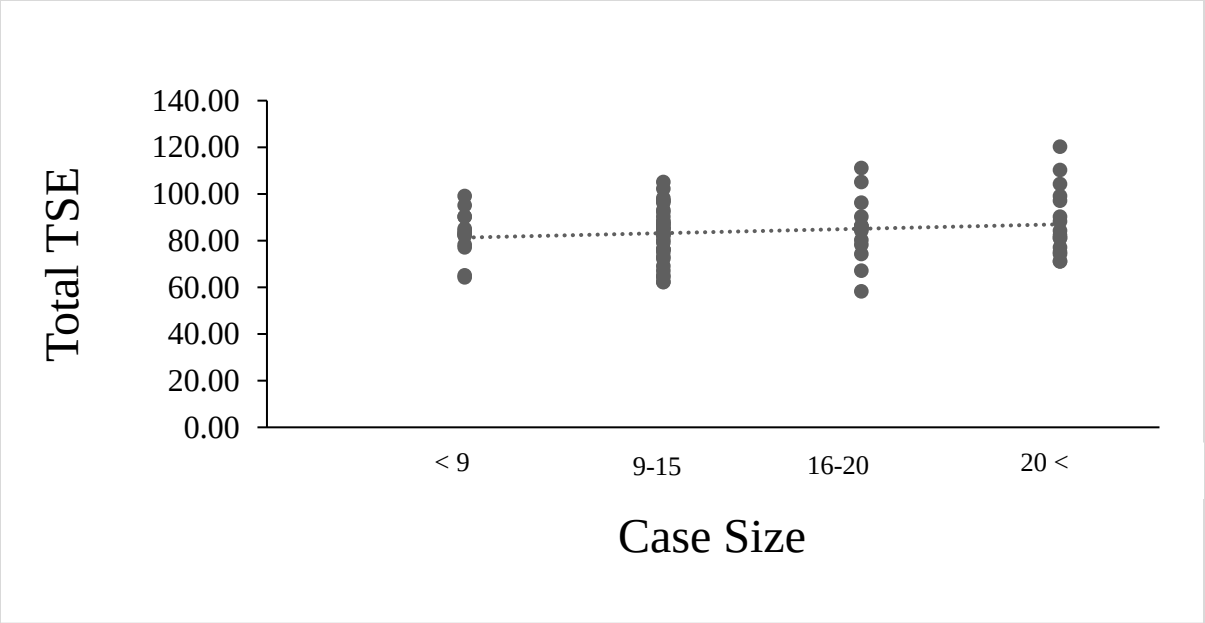


Figure B.14 *TSE and Instructional Setting Scatterplot*

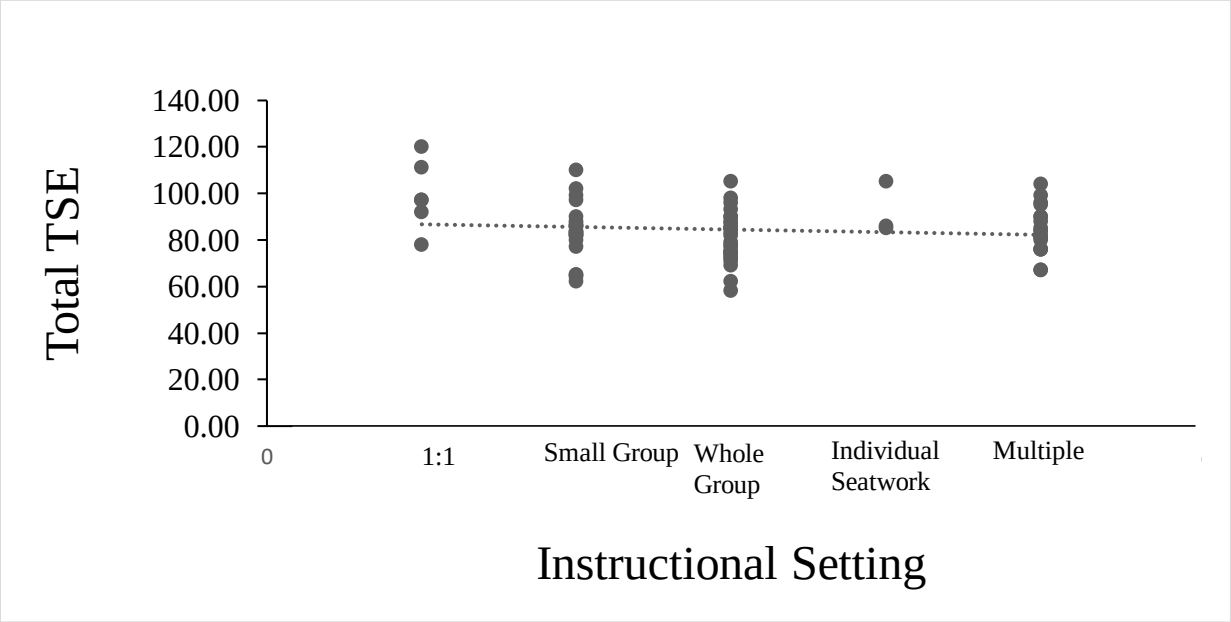


Figure B.15. *TSE and Class Size Scatterplot*

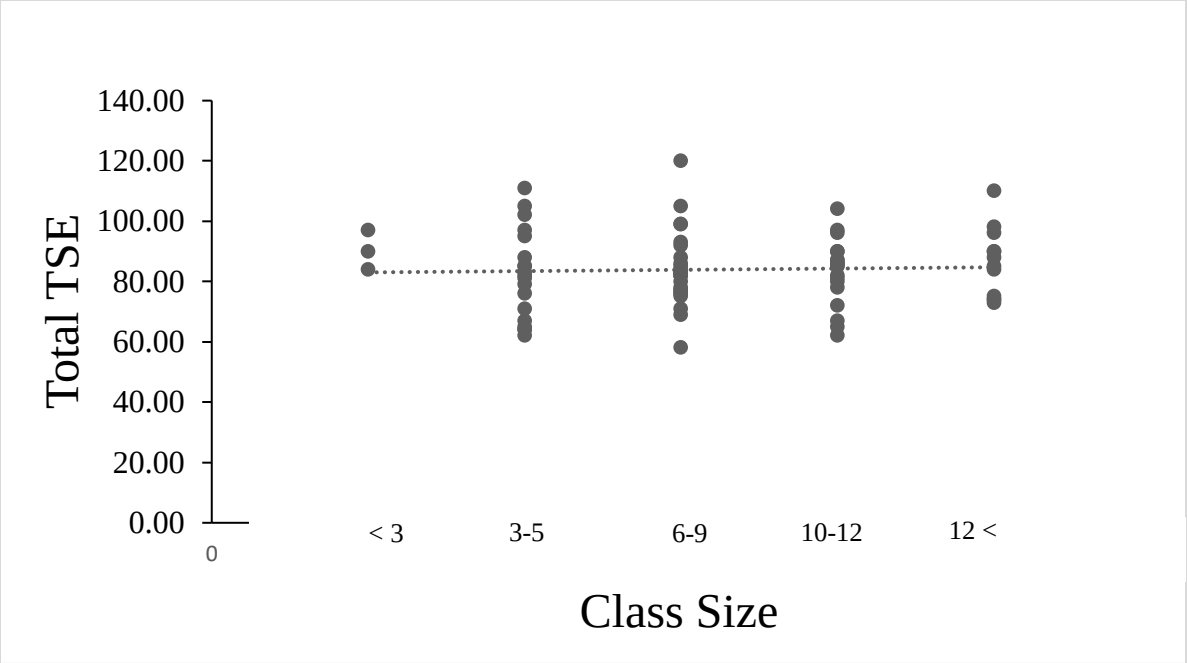
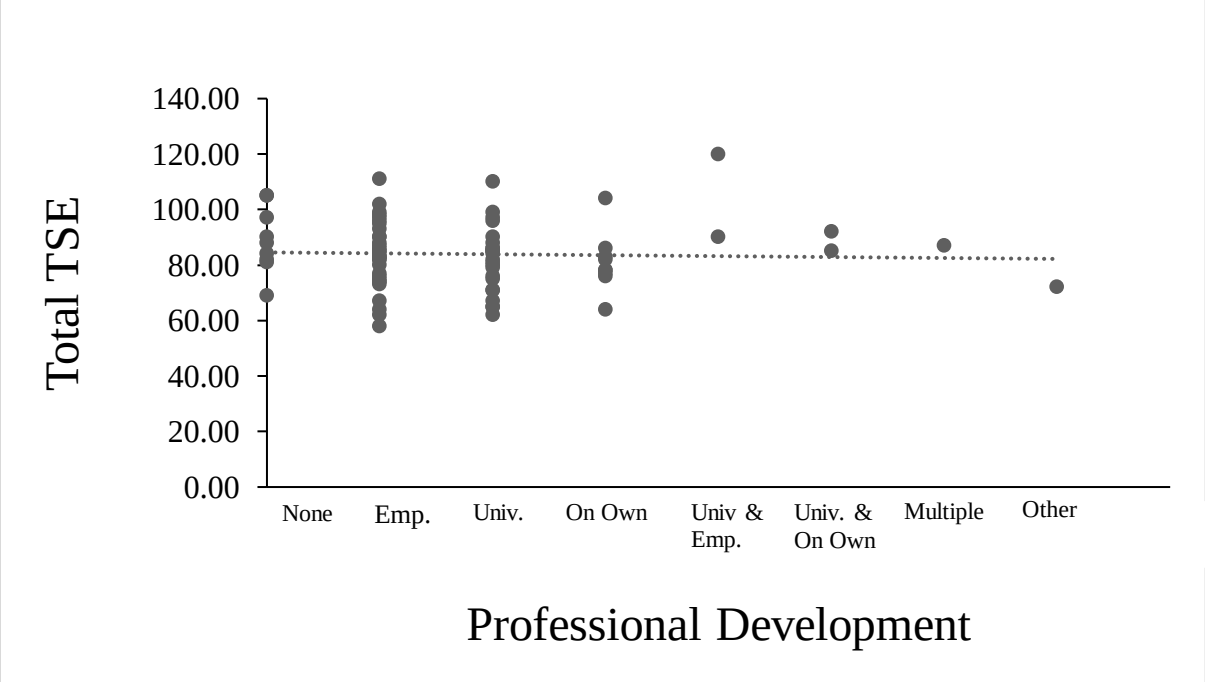


Figure B.16. *TSE and Professional Development Scatterplot*



Notes: Emp. = Employment, Univ. = University

Figure B.17. *TSE and Mastery Experiences Scatterplot*

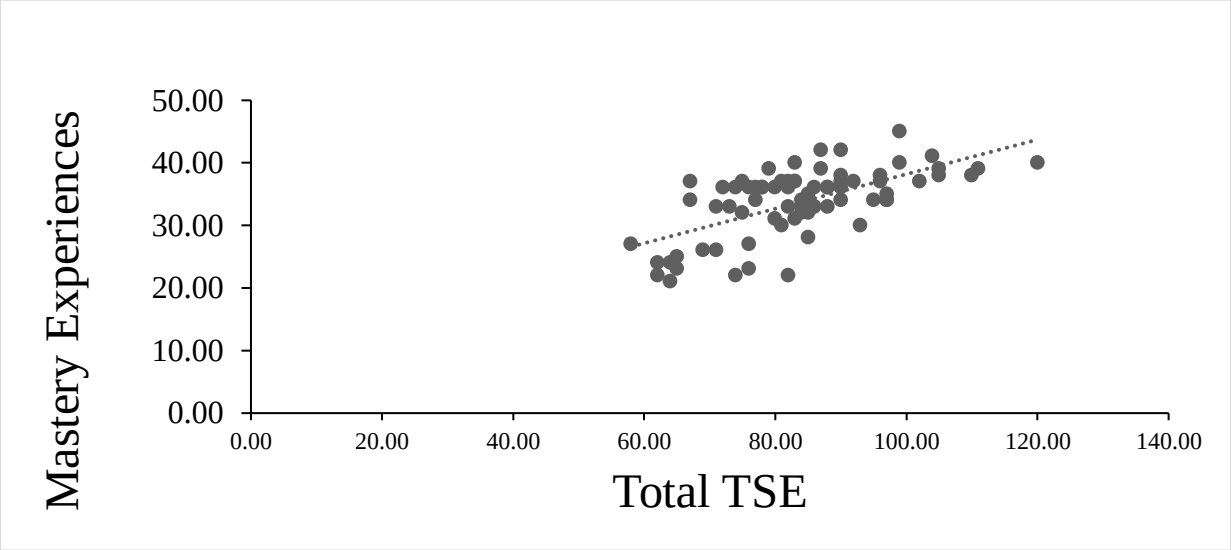


Figure B.18. *TSE and Vicarious Experiences Scatterplot*

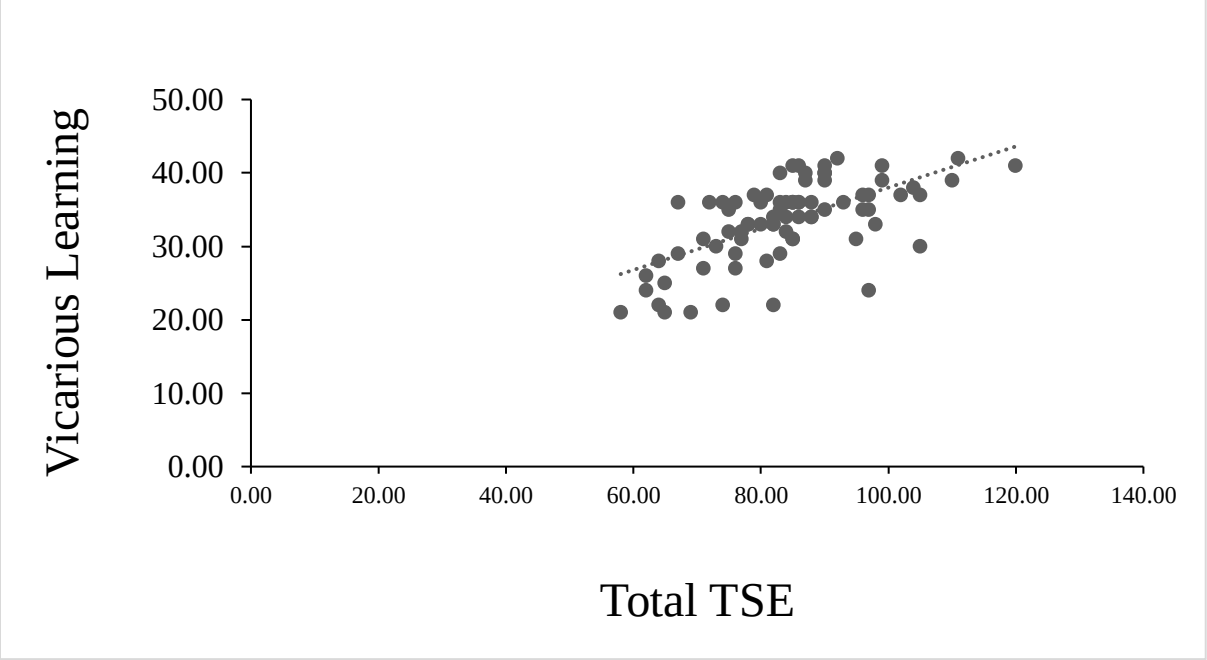


Figure B.19. *TSE and Social Verbal Persuasion Scatterplot*

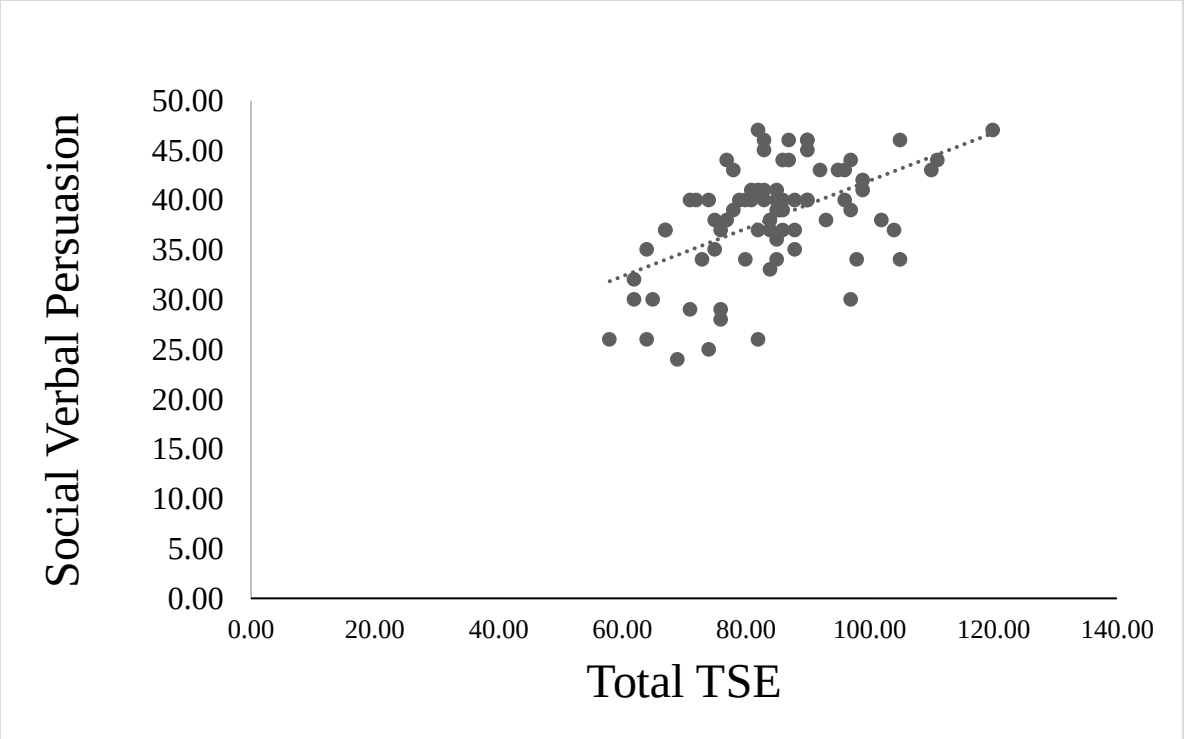
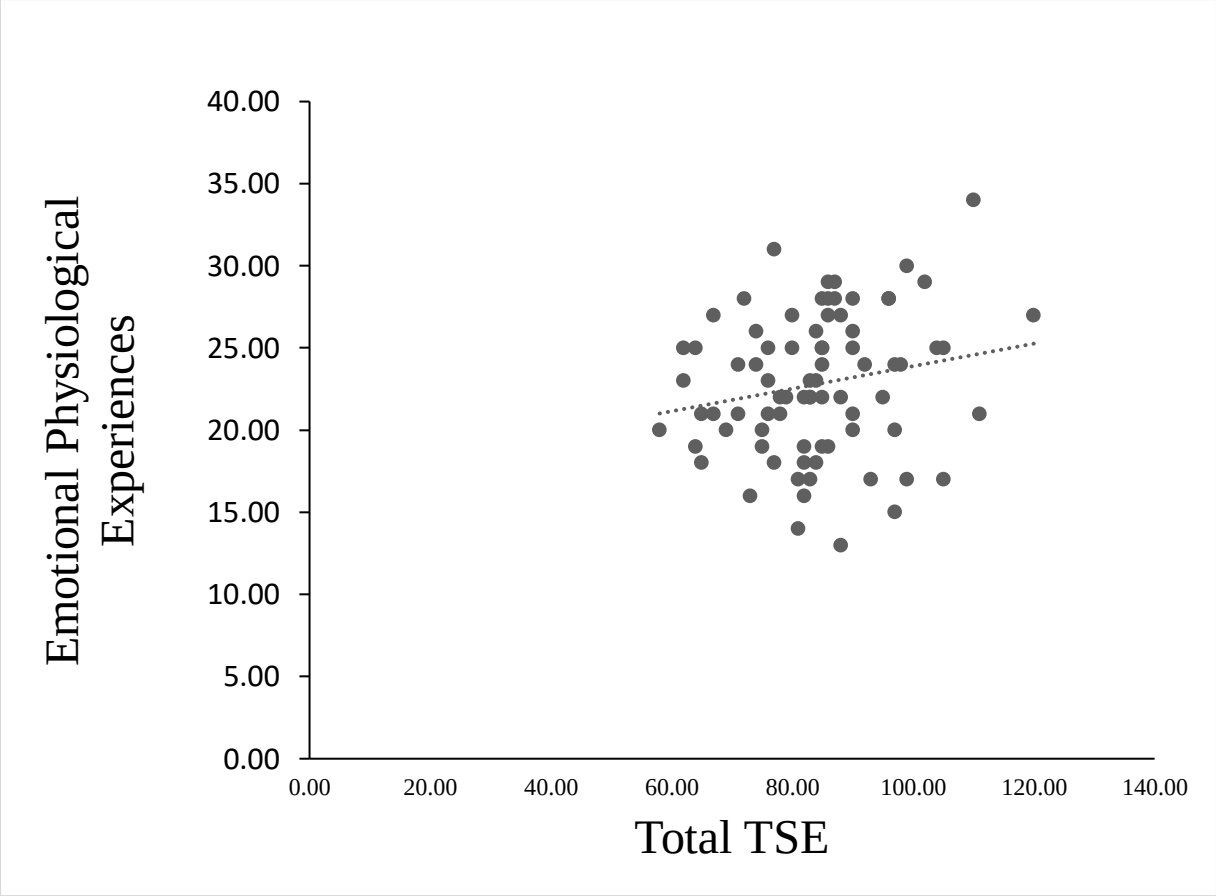


Figure B.20. *TSE and Emotional/Physiological States Scatterplot*



Appendix C Qualitative Results Bar Charts

Figure C.1. *Frequency Distribution of References to Classroom Management: Culture*

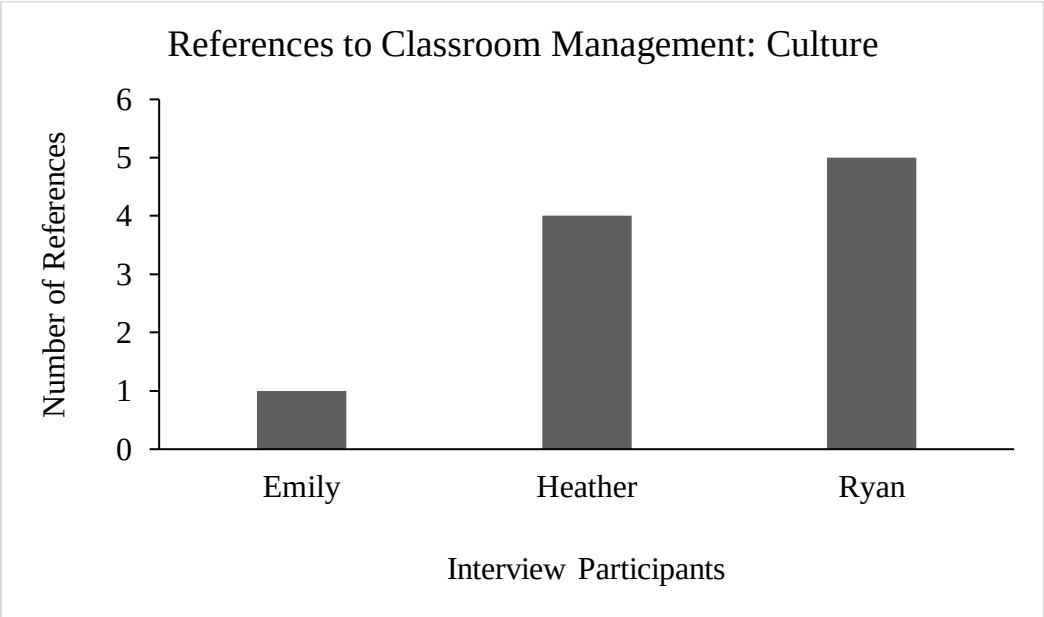


Figure C.2. *Frequency Distribution of References to Classroom Management: Structure*

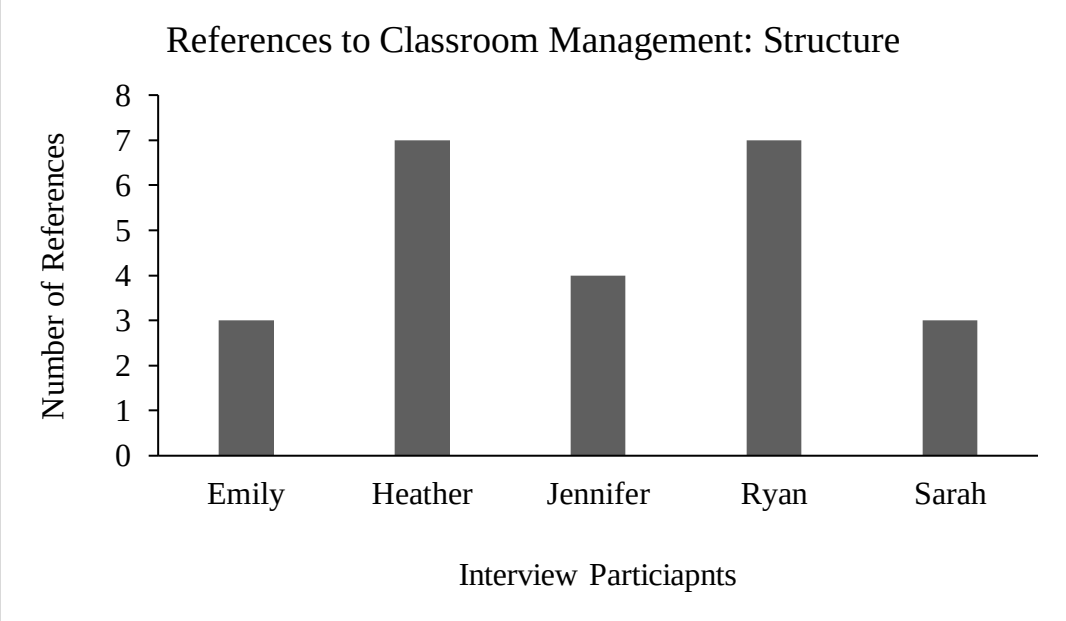


Figure C.3. *Frequency Distribution of References to Instructional Strategies: Content*

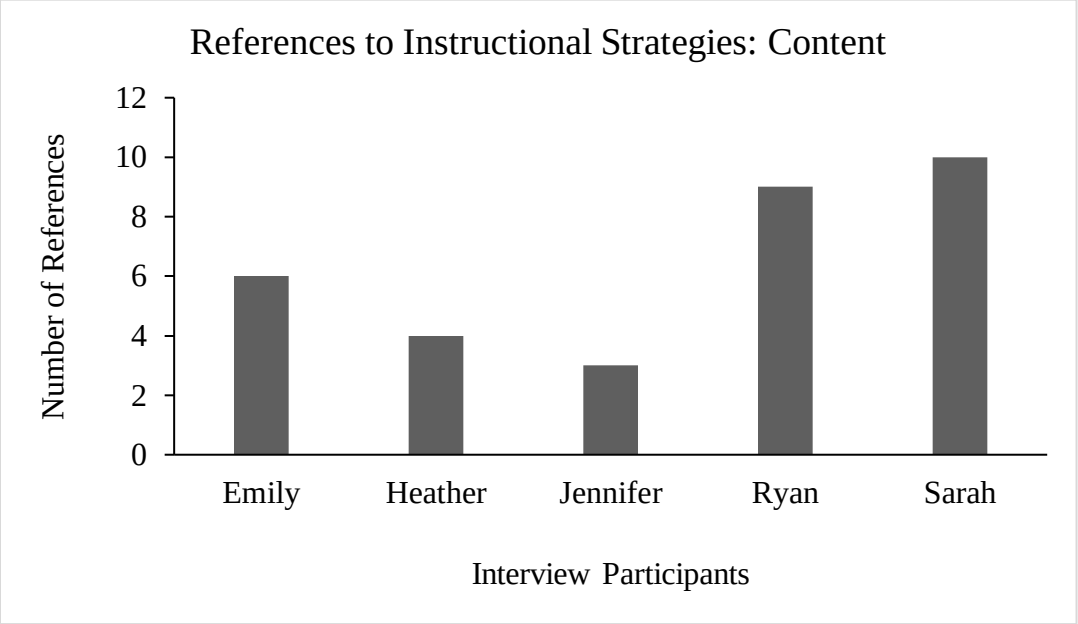


Figure C.4. *Frequency Distribution of References to Instructional Strategies: Teaching Techniques/Strategies*

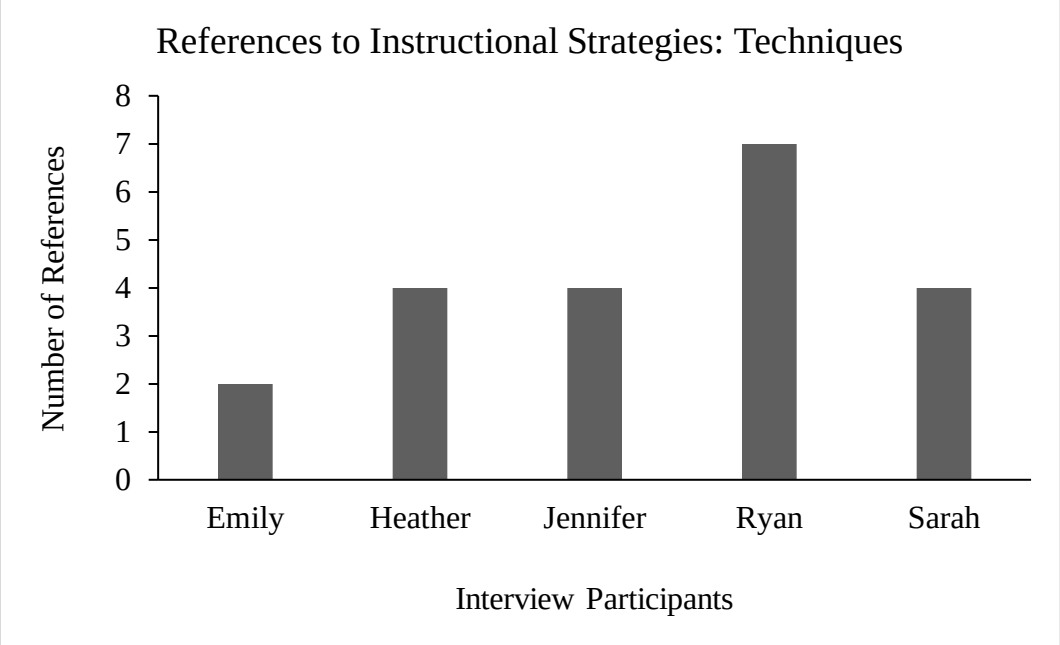


Figure C.5.

Frequency Distribution of References to Student Engagement: Special Populations

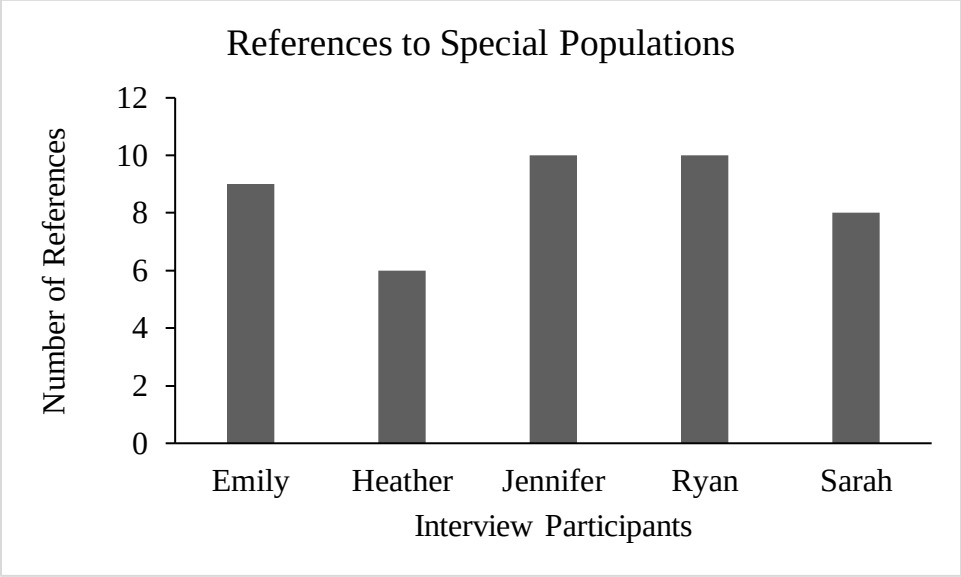


Figure C.6.

Frequency Distribution of Emily's References to Classroom Management

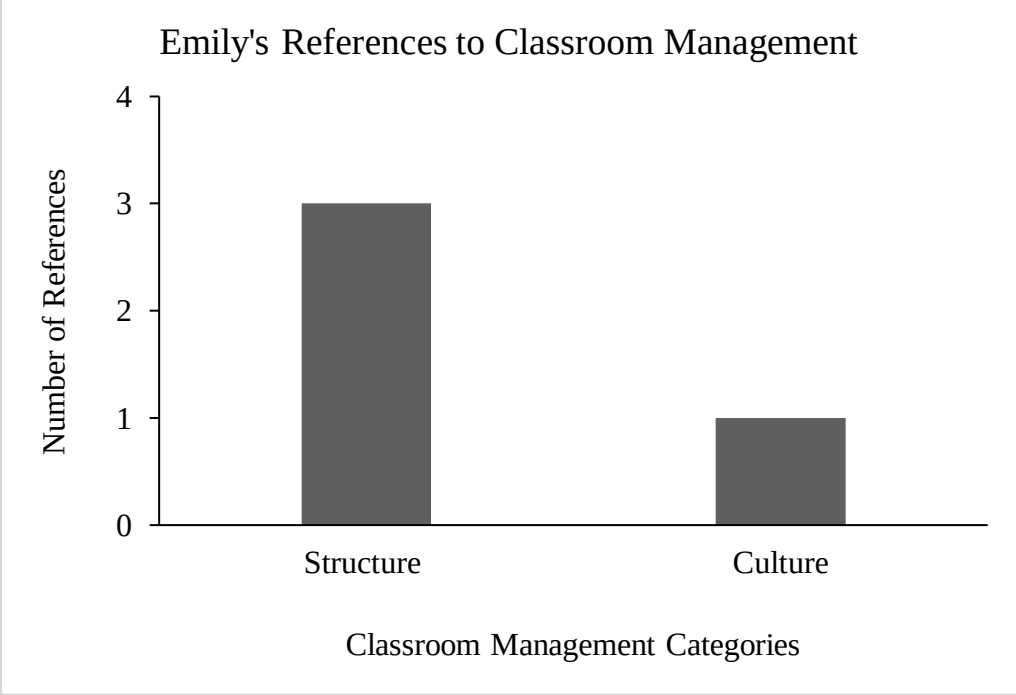


Figure C.7.

Frequency Distribution of Emily's References to Instructional Strategies

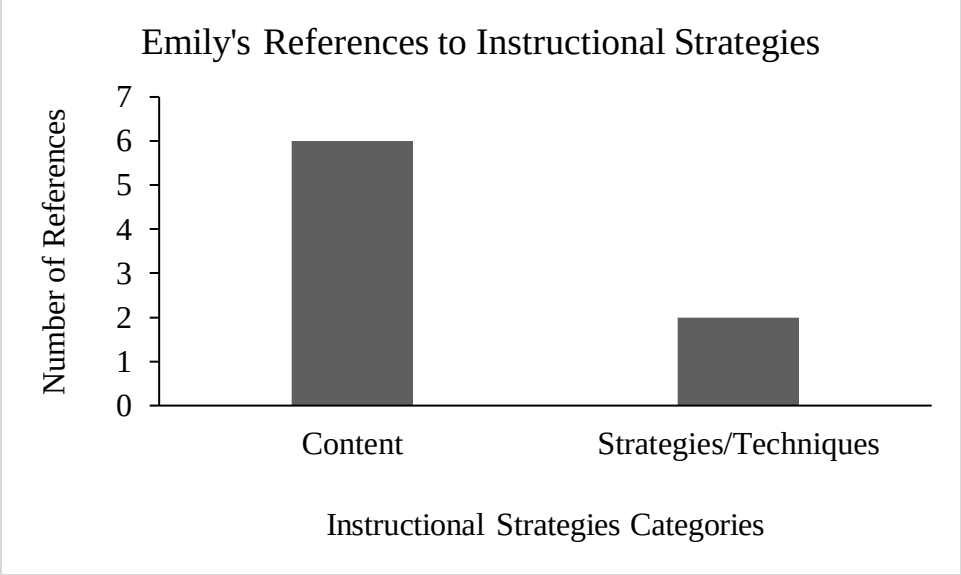


Figure C.8.

Frequency Distribution of Emily's References to Student Engagement

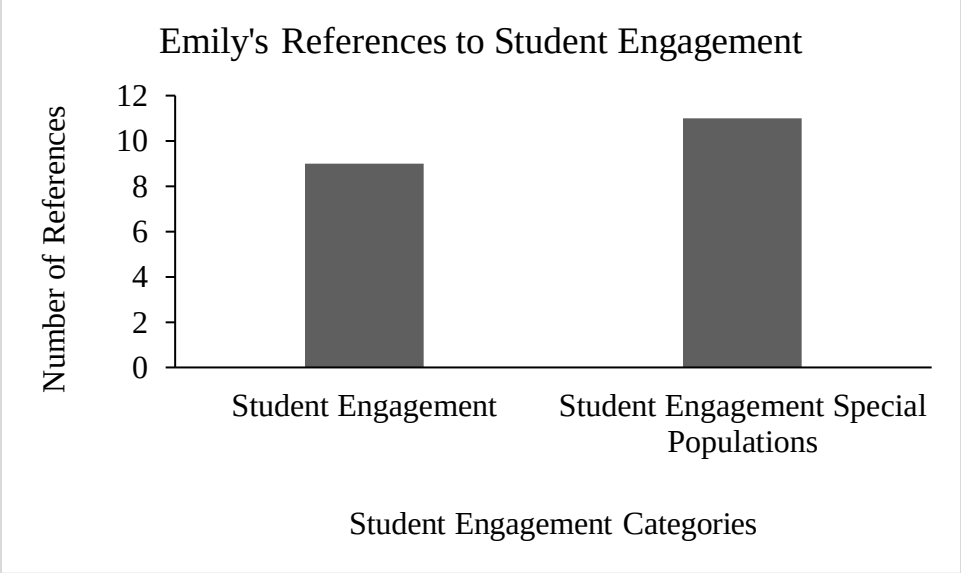


Figure C.9.

Frequency Distribution of Emily's References to Mastery Experiences

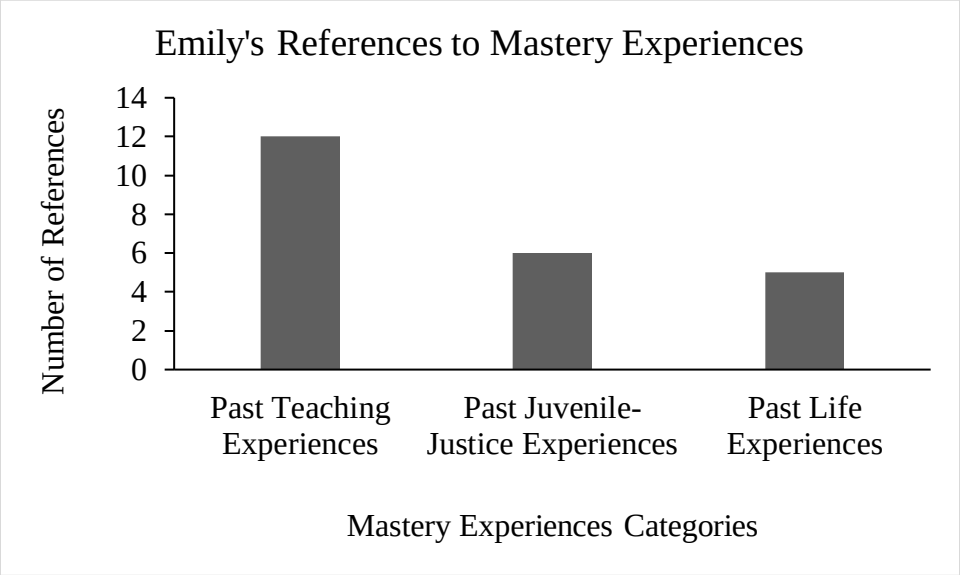


Figure C.10.

Frequency Distribution of Emily's References to Vicarious Experiences

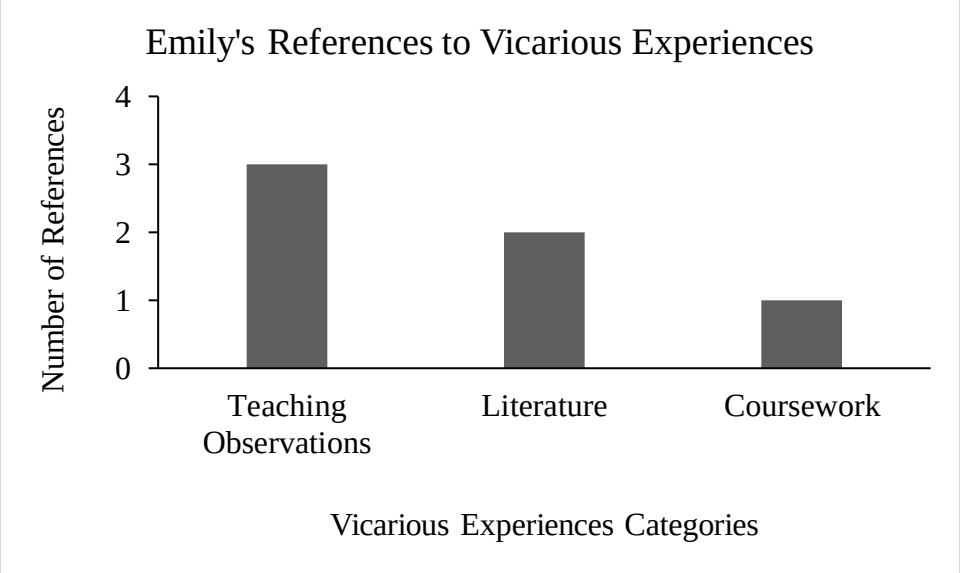


Figure C.11.

Frequency Distribution of Emily's References to Social Verbal Persuasion

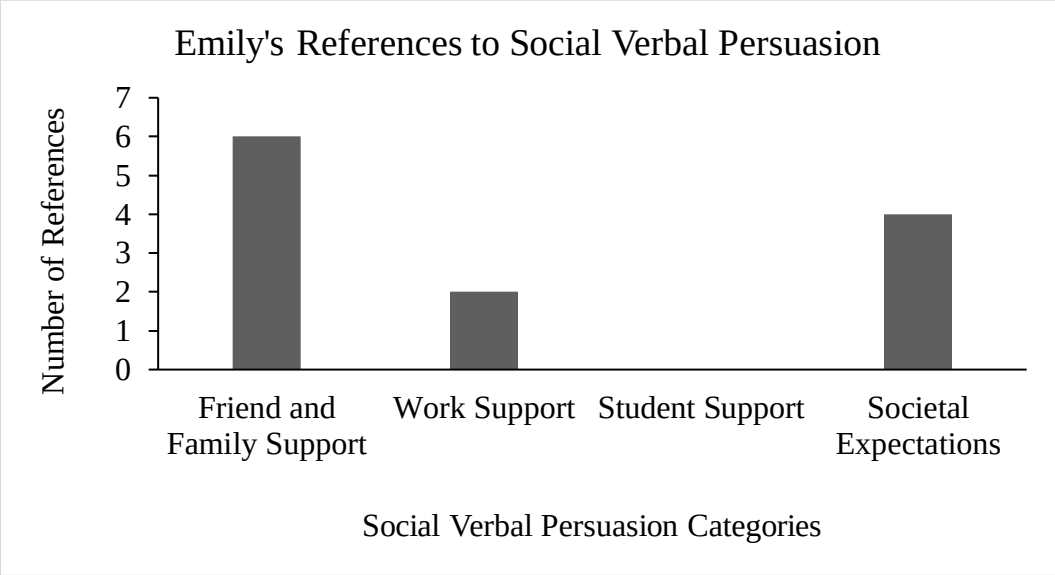


Figure C.12.

Frequency Distribution of Emily's References to Emotional/Physiological States

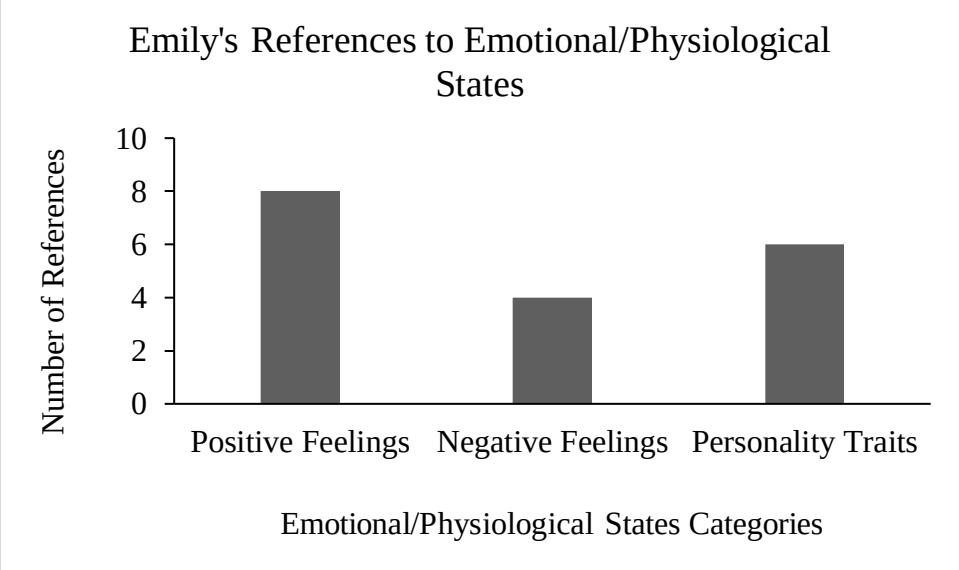


Figure C.13.

Frequency Distribution of Heather's References to Classroom Management

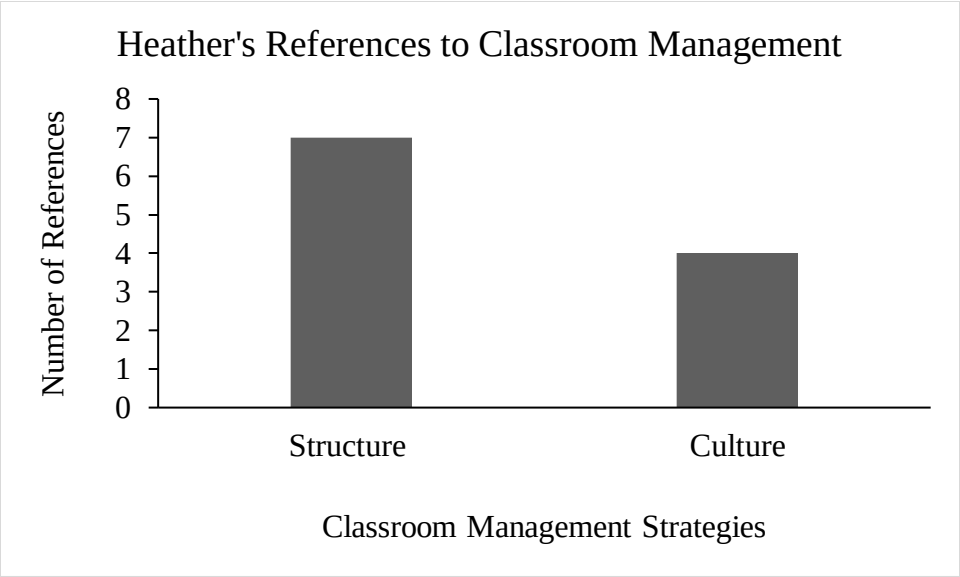


Figure C.14.

Frequency Distribution of Heather's References to Instructional Strategies

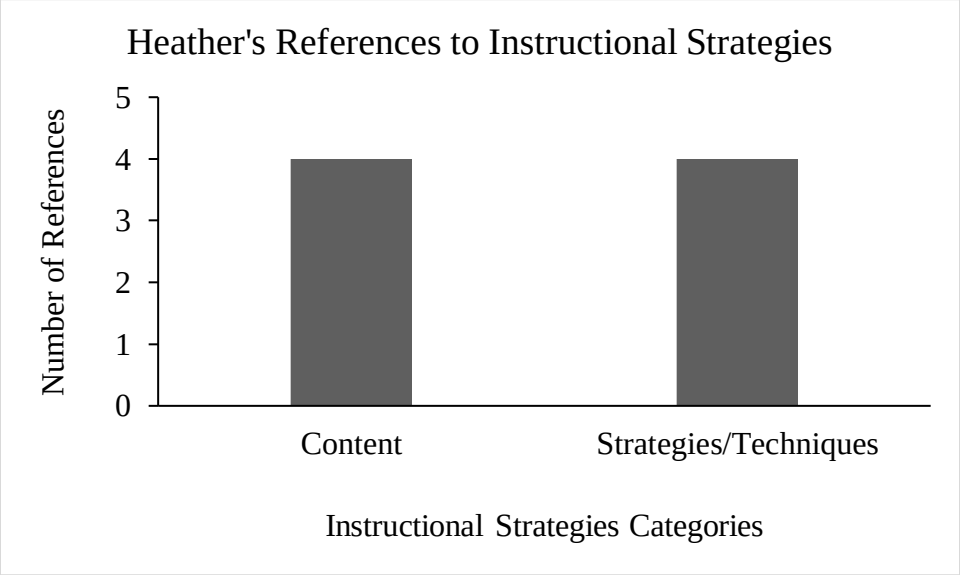


Figure C.15.

Frequency Distribution of Heather's References to Student Engagement

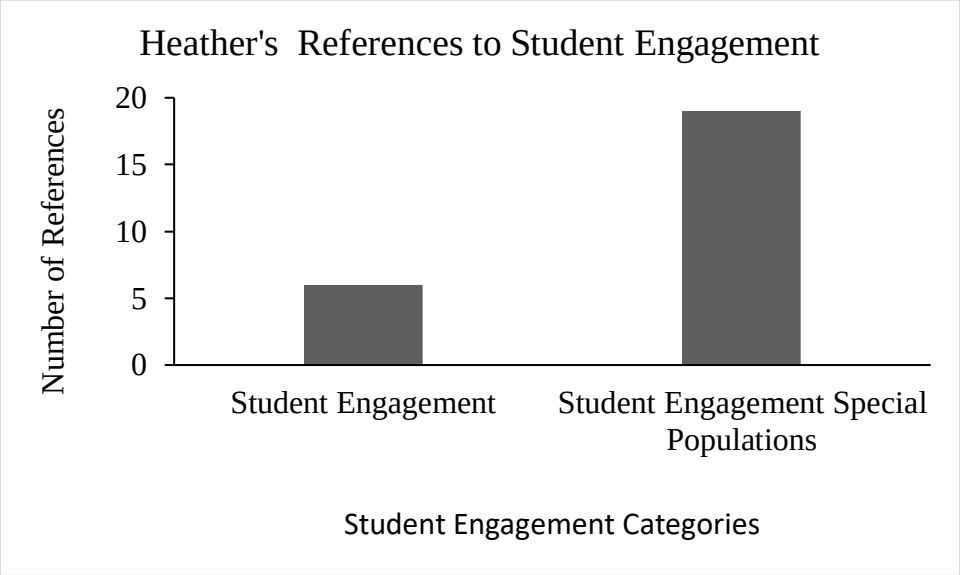


Figure C.16.

Frequency Distribution of Heather's References Mastery Experiences

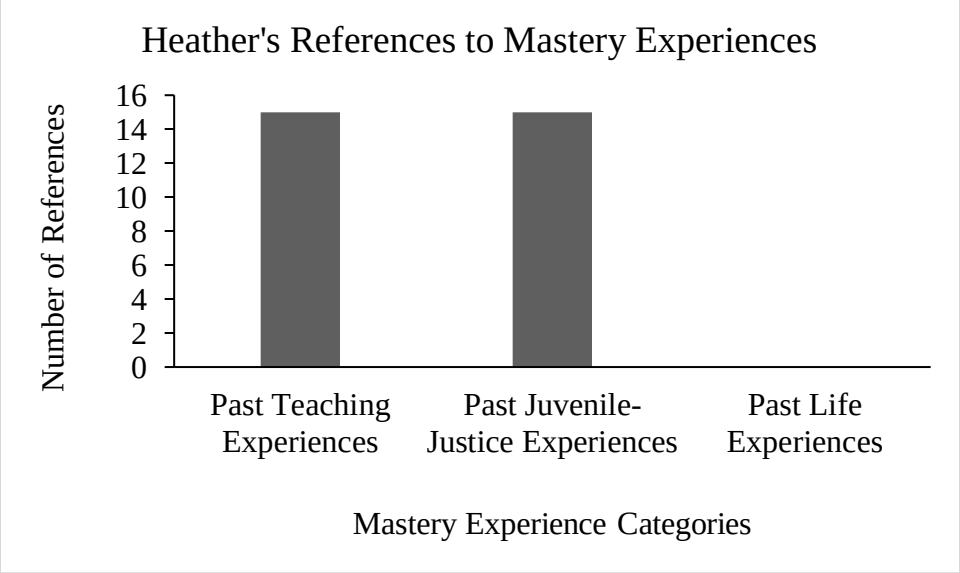


Figure C.17.

Frequency Distribution of Heather's References to Vicarious Experiences

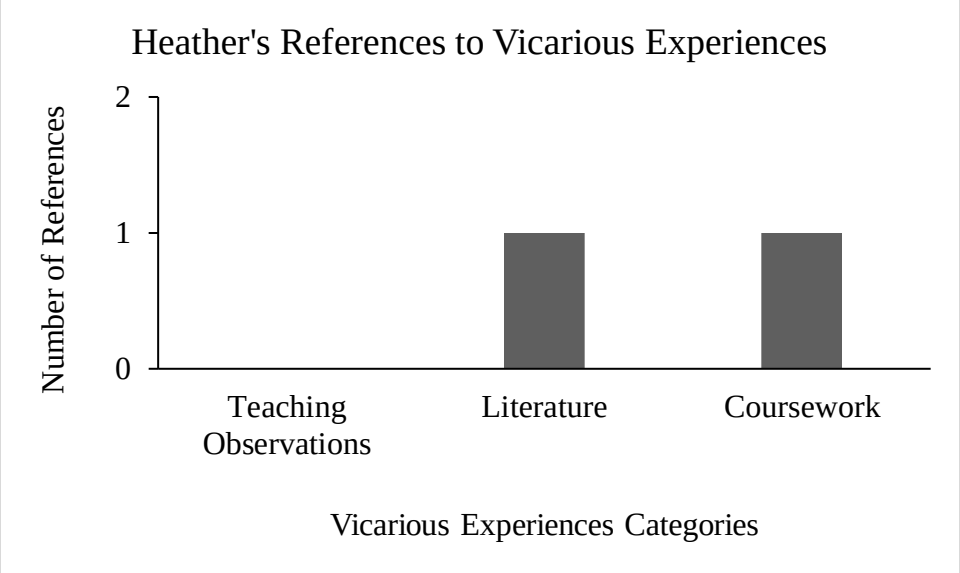


Figure C.18.

Frequency Distribution of Heather's References to Verbal Persuasion

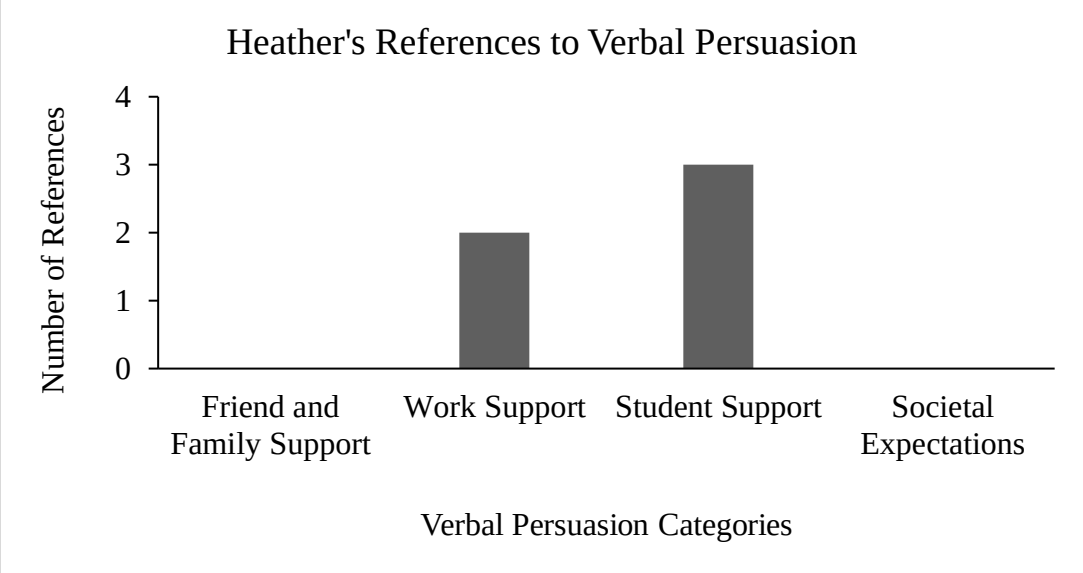


Figure C.19.

Frequency Distribution of Heather's References to Emotional/Physiological States

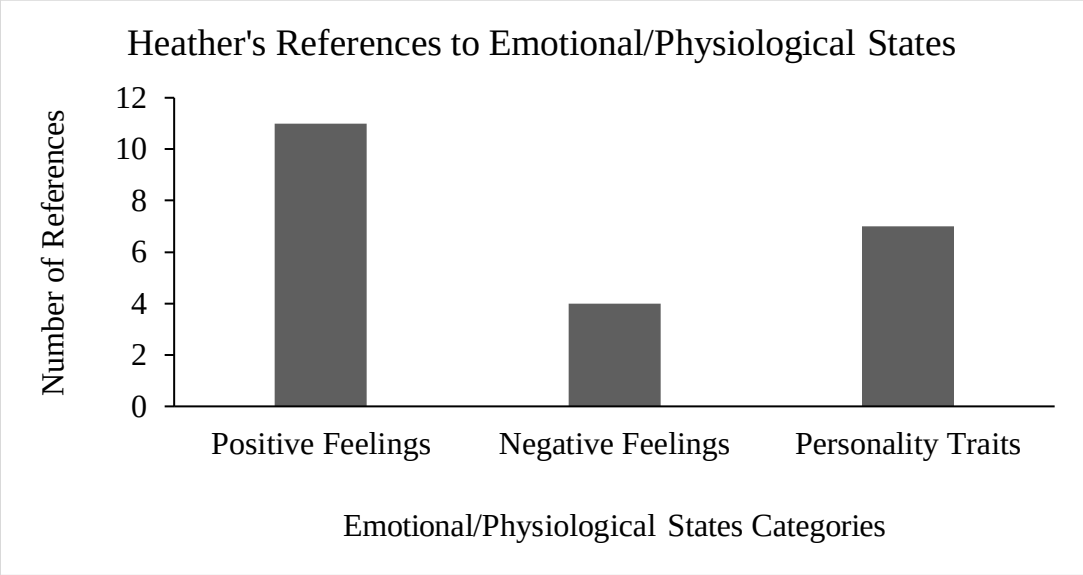


Figure C.20.

Frequency Distribution of Jennifer's References to Classroom Management

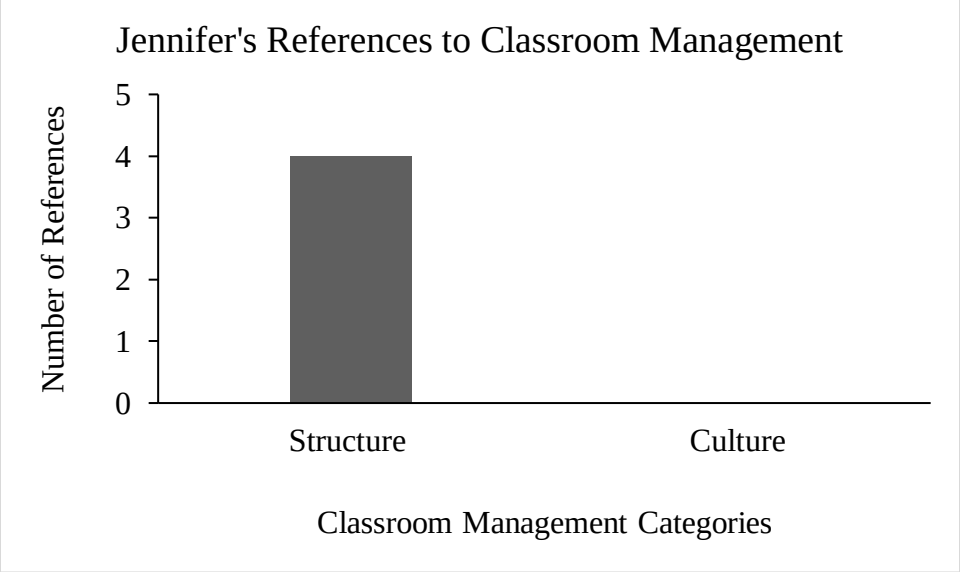


Figure C.21.

Frequency Distribution of Jennifer's References to Instructional Strategies

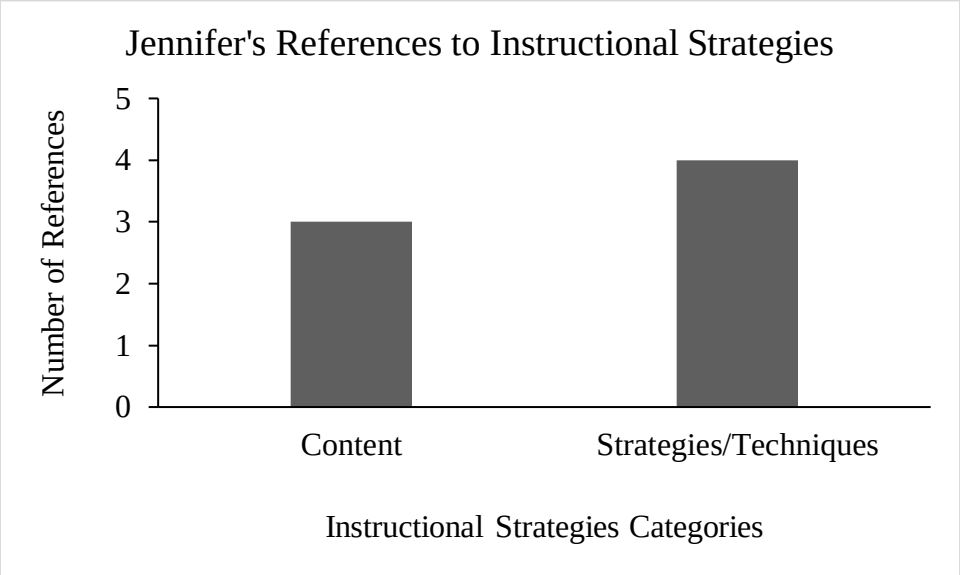


Figure C.22.

Frequency Distribution of Jennifer's References to Student Engagement

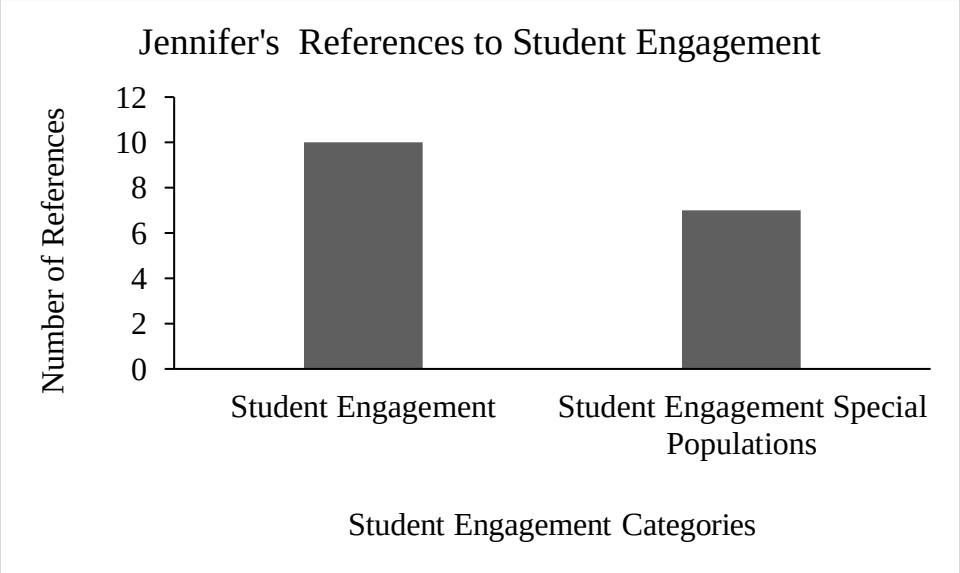


Figure C.23.

Frequency Distribution of Jennifer's References to Mastery Experiences

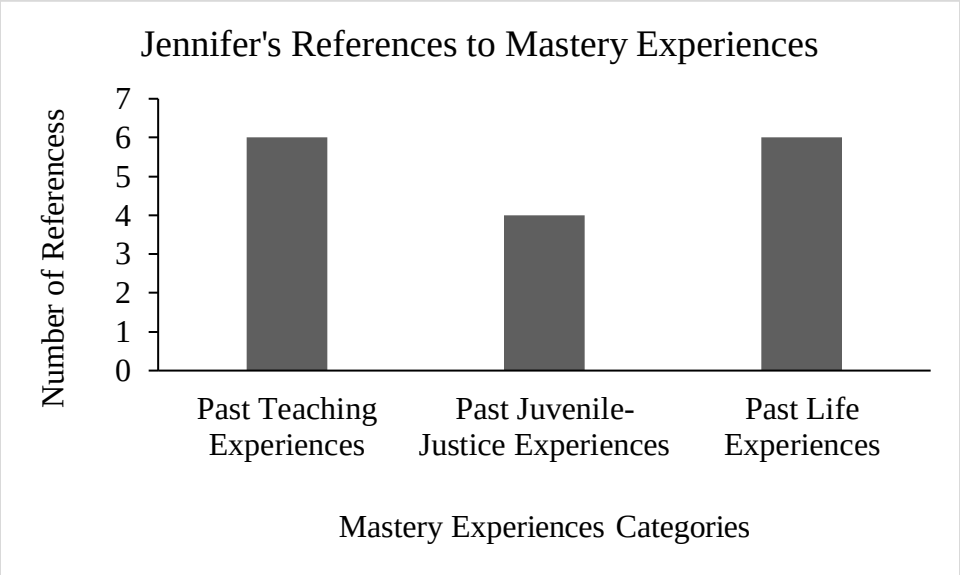


Figure C.24.

Frequency Distribution of Jennifer's References to Vicarious Experiences

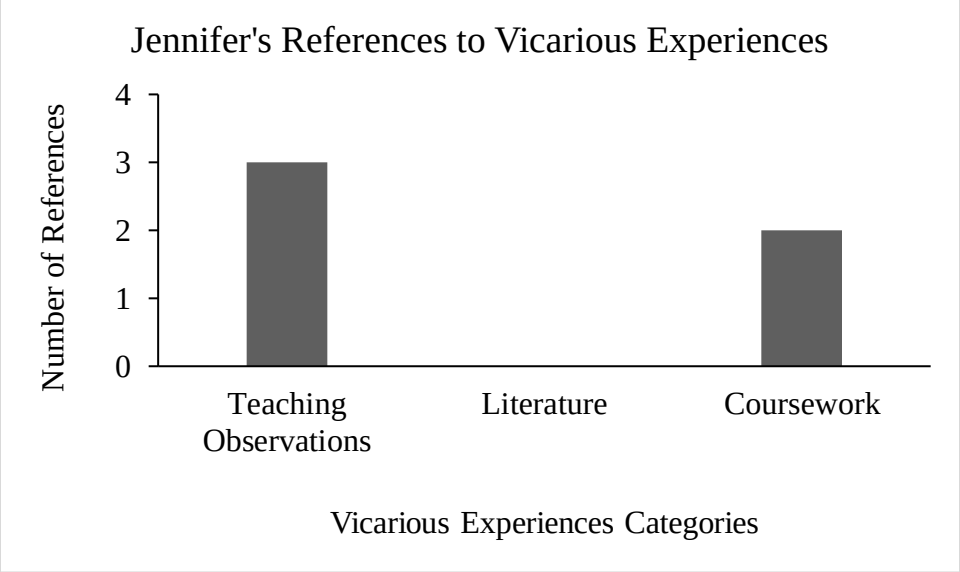


Figure C.25.

Frequency Distribution of Jennifer's References to Social Verbal Persuasion

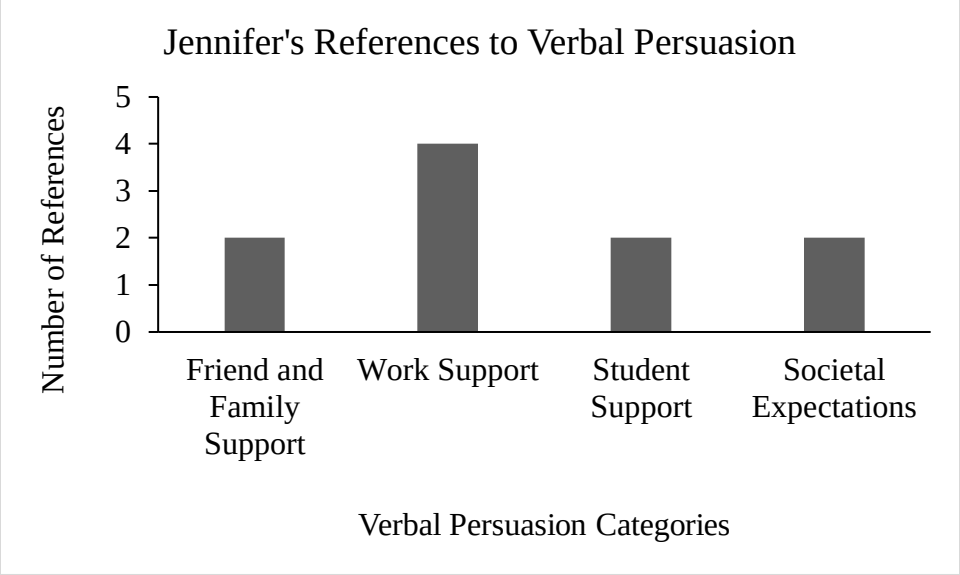


Figure C.26.

Frequency Distribution of Jennifer's References to Emotional/Physiological States

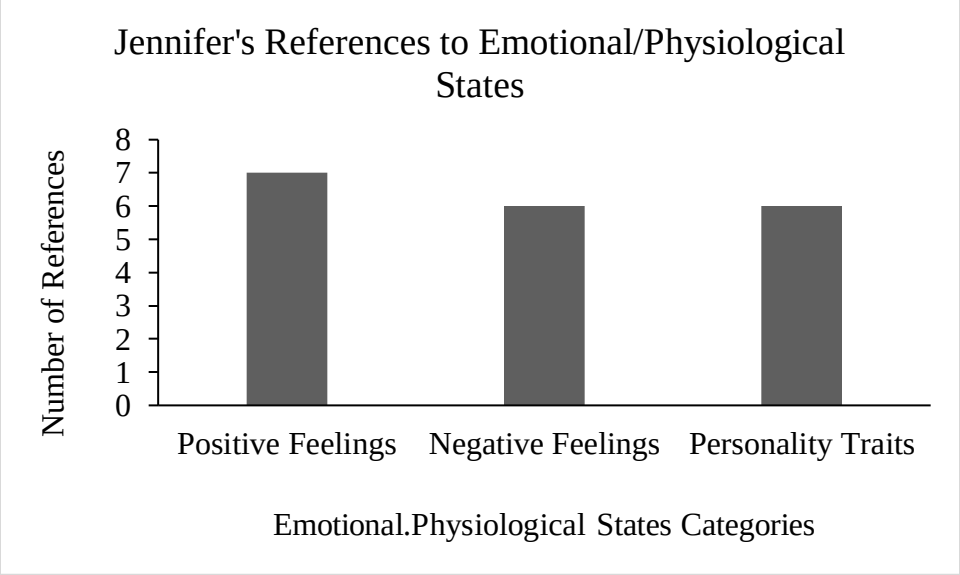


Figure C.27.

Frequency Distribution of Ryan's References to Classroom Management

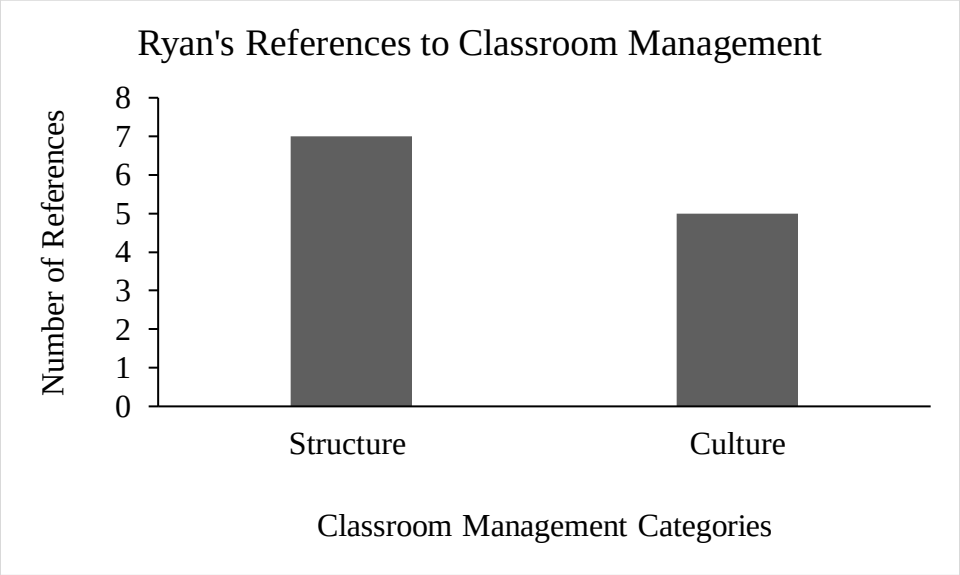


Figure C.28.

Frequency Distribution of Ryan's References to Instructional Strategies

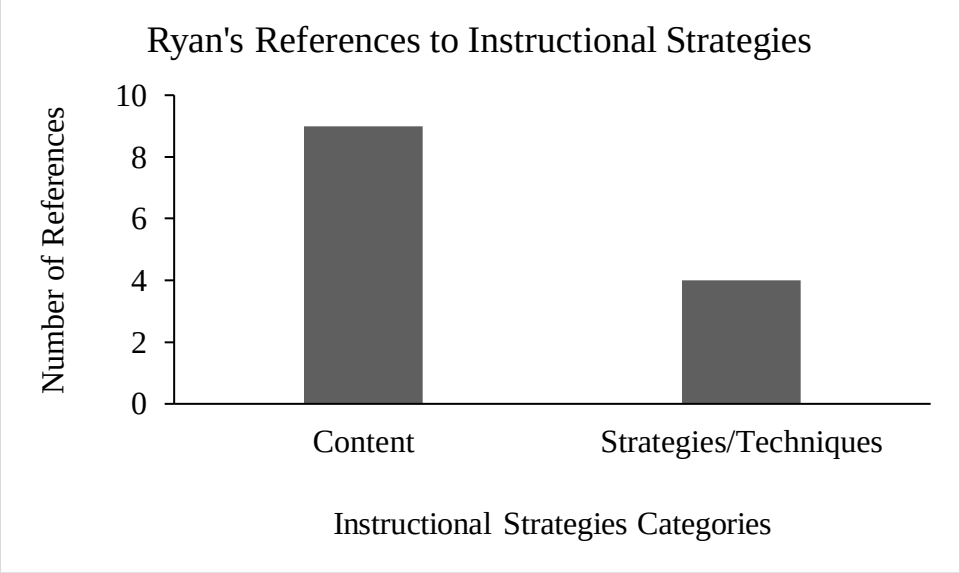


Figure C.29.

Frequency Distribution of Ryan's References to Student Engagement

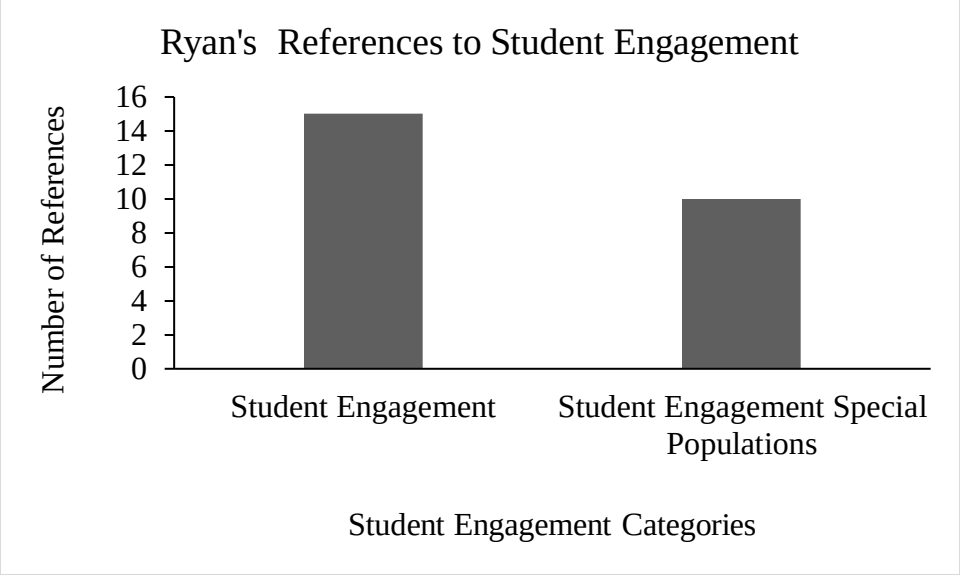


Figure C.30.

Frequency Distribution of Ryan's References to Mastery Experiences

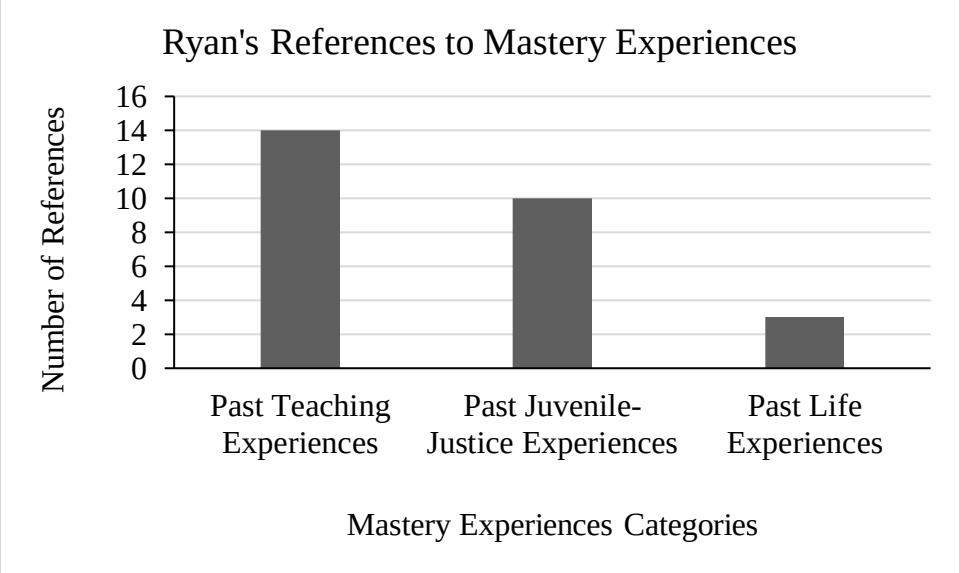


Figure C.31.

Frequency Distribution of Ryan's References to Vicarious Experiences

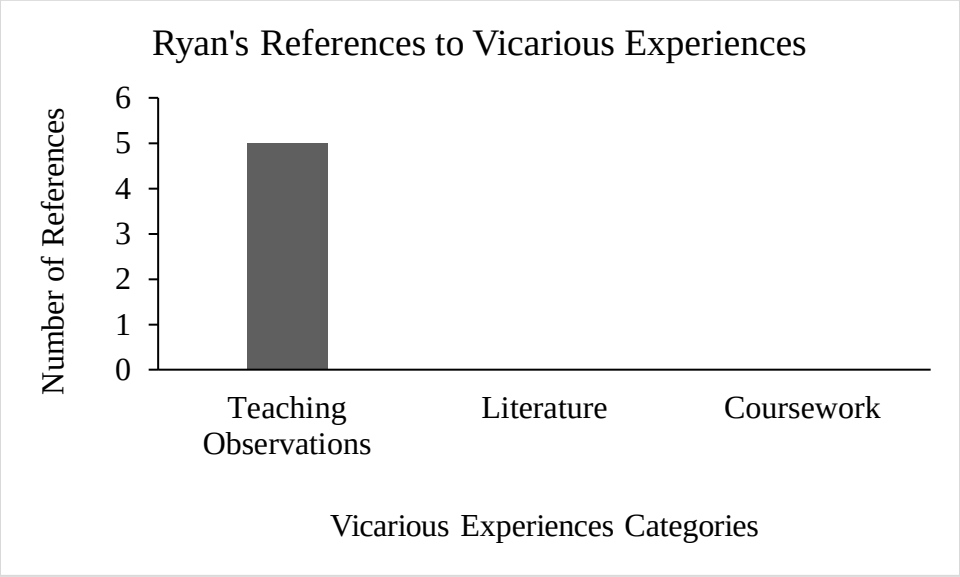


Figure C.32.

Frequency Distribution of Ryan's References to Social Verbal Persuasion

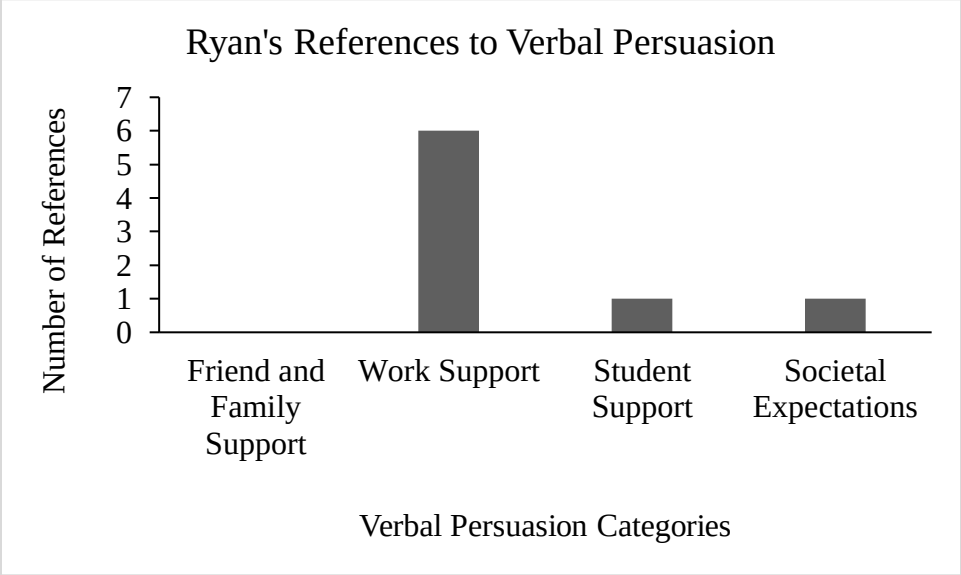


Figure C.33.

Frequency Distribution of Ryan's References to Emotional/Physiological States

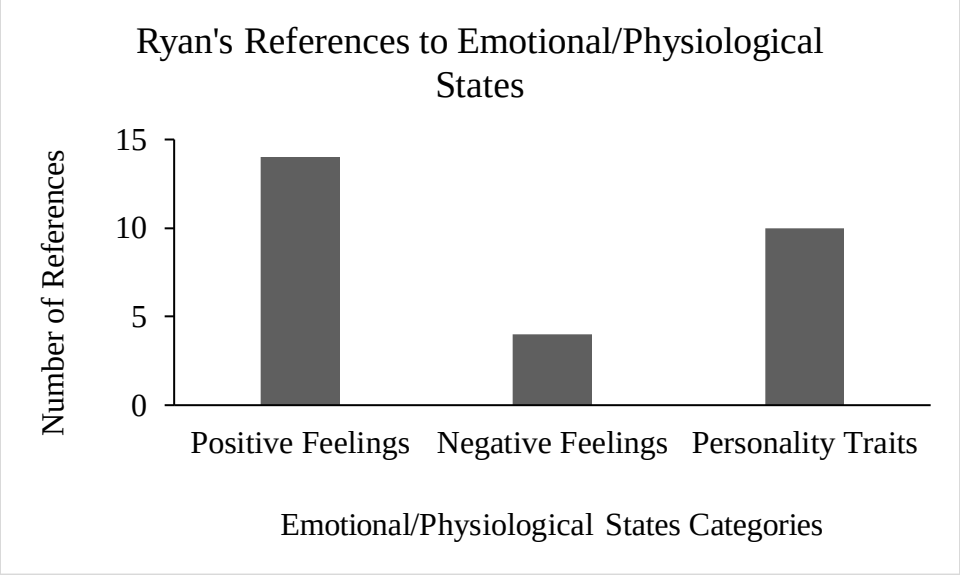


Figure C.34.

Frequency Distribution of Sarah's References to Classroom Management

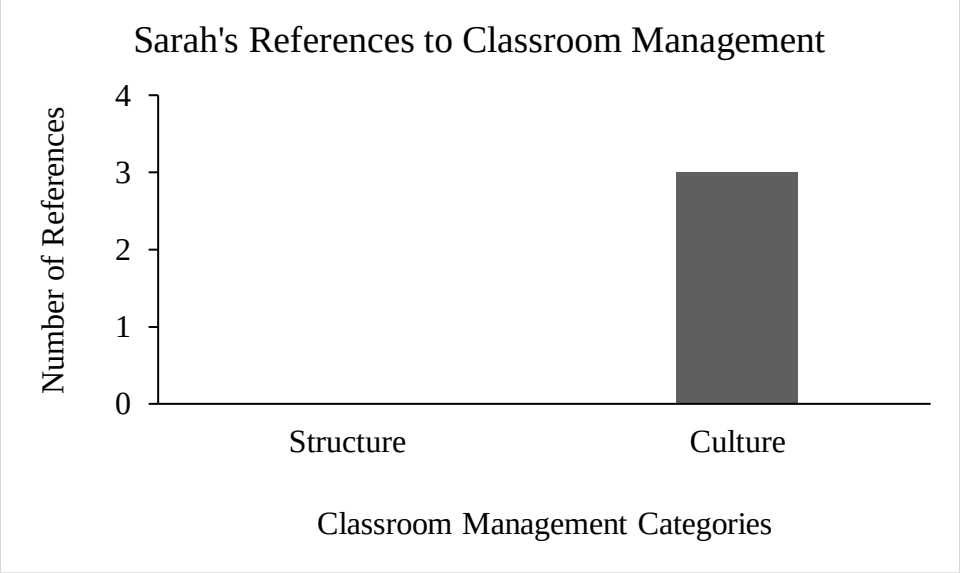


Figure C.35.

Frequency Distribution of Sarah's References to Instructional Strategies

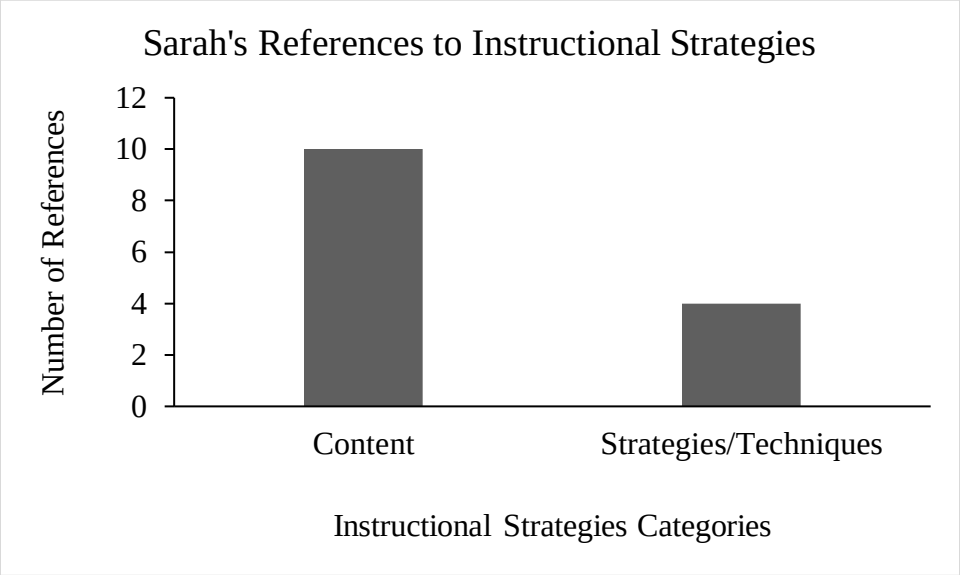


Figure C.36.

Frequency Distribution of Sarah's References to Student Engagement

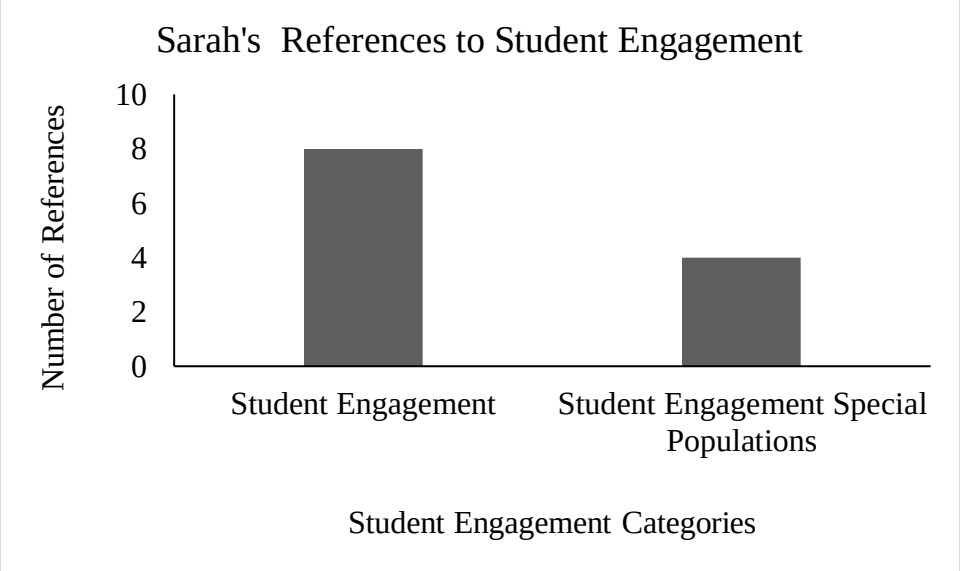


Figure C.37.

Frequency Distribution of Sarah's References to Mastery Experiences

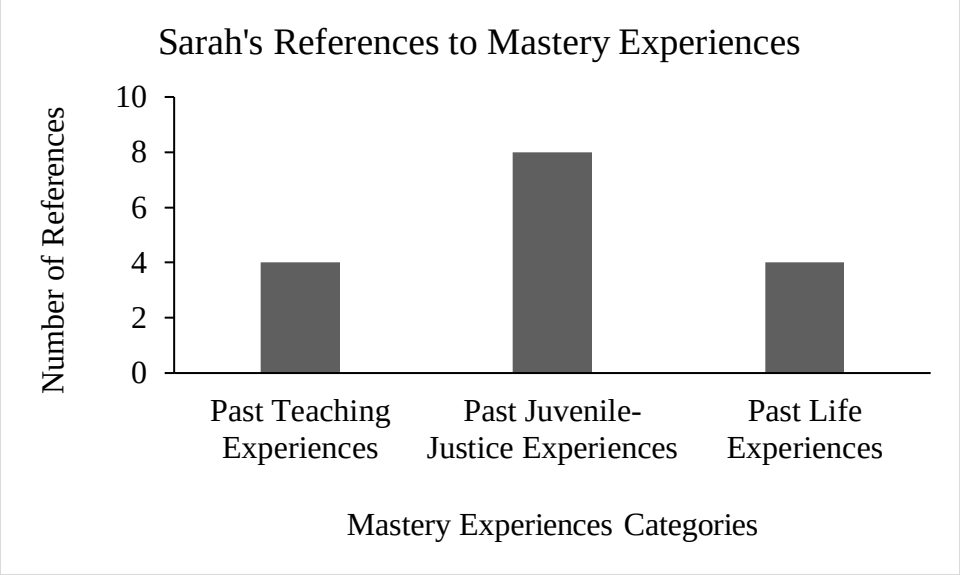


Figure C.38.

Frequency Distribution of Sarah's References to Vicarious Experiences

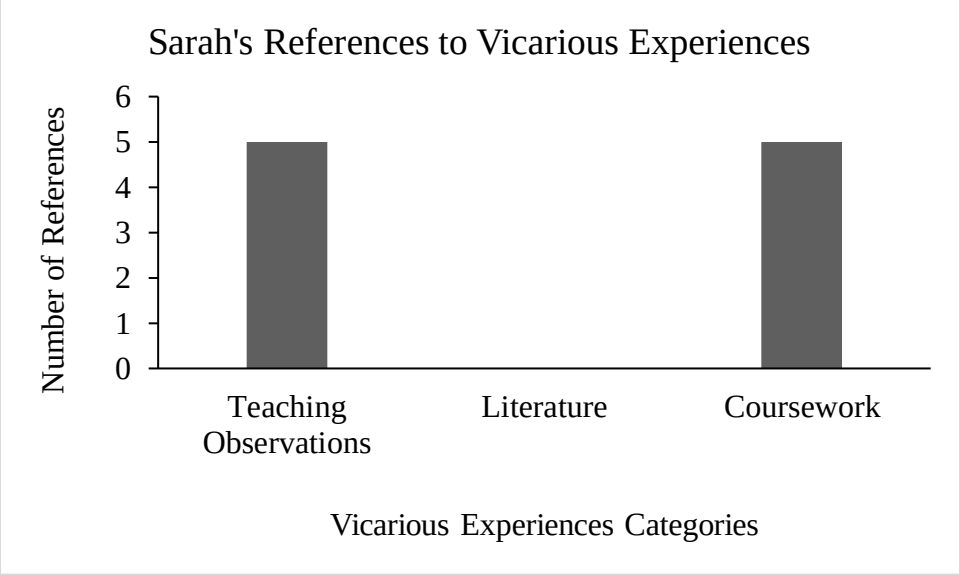


Figure C.39.

Frequency Distribution of Sarah's References to Social Verbal Persuasion

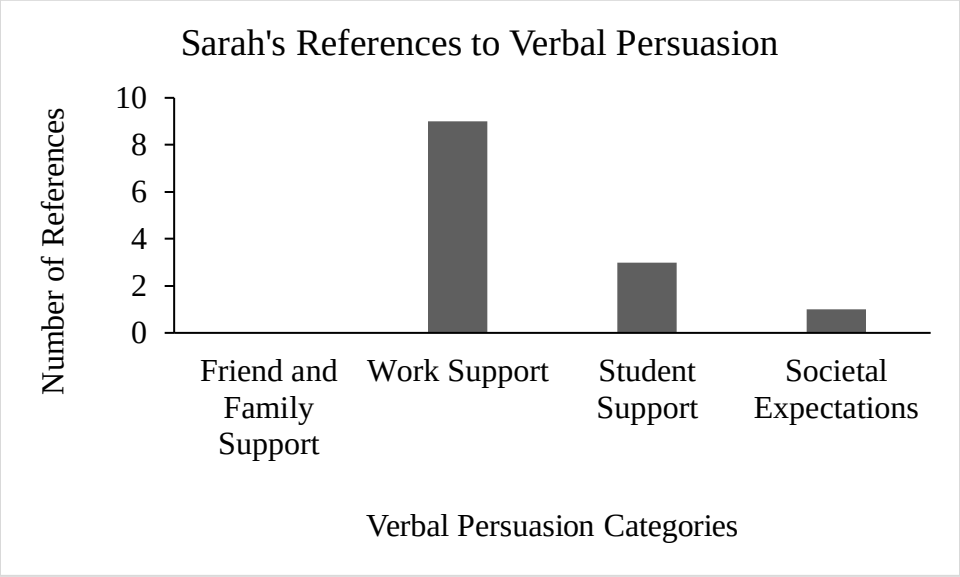


Figure C.40.

Frequency Distribution of Sarah's References to Emotional/Physiological States