

**THE RELATIONSHIP BETWEEN SECONDARY TEACHERS' SELF-EFFICACY
SUBSCALES OF STUDENT ENGAGEMENT, INSTRUCTIONAL PRACTICES, AND
CLASSROOM MANAGEMENT, AND ATTITUDES ABOUT THE INCLUSIVE
SETTING**

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

The purpose of this quantitative correlation study is to determine if there is a relationship between in-service secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes toward the inclusive setting. Secondary teachers' self-efficacy is imperative to student engagement, instructional practices, and classroom management in an inclusive setting. The study surveys 67 in-service middle and high school level general education teachers from a single, rural school district in eastern Pennsylvania. Data were collected using two surveys which are the long form of Teachers' Sense of Efficacy Scale and The Scale of Teacher's Attitudes towards Inclusive Classroom. Data were collected anonymously through Survey Monkey. A Pearson product-moment correlation was used to analyze the data. The results revealed a statistically significant positive correlation at a very large effect size between student engagement and attitudes toward inclusion, instructional practices and attitude toward inclusion, and classroom management and attitudes toward inclusion.

Keywords: teacher attitudes, self-efficacy, student engagement, instructional practices, classroom management, inclusive classroom setting

Dedication

The dissertation is dedicated to my parents, Ozzie and Joan Dupuis, who instilled in me the belief that all things are possible with hard work and determination. They provided me with never-ending support, encouragement, and many babysitting services as I worked through this journey. To my husband, Jason C. Wood, for being my biggest cheerleader and demonstrating understanding when I had to work late to finish an assignment or spend a Saturday writing a paper. Thanks for the endless cups of coffee and many supportive words; they kept me going in the most challenging times. To my children, Jesse, Jase, and Elaina, who gave me unknowing motivation to persevere and achieve my goals in hopes of showing them that all things are possible with hard work and a growth mindset. To the rest of my family and friends, thank you for listening to me rant about my workload, understanding the shift in my priorities, and being my biggest fans.

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List of Abbreviations

Self Determination Theory (SDT)

Special Education Needs (SEN)

Teacher's Sense of Efficacy Scale (TSES)

The Scale of Teachers Attitudes towards Inclusive Classrooms (STATIC)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative, correlation study is to determine if there is a relationship between in-service secondary teachers' self-efficacy subscales of student engagement, instructional practices, and classroom management, and their attitudes about the inclusive setting. Chapter One provides background for the topics of self-efficacy, student engagement, instructional practices, classroom management, and the inclusive setting. Included in the background is the theoretical framework for this study. The problem statement examines the depth of recent literature on the topic. The purpose of this study is followed by the significance of the current study. Finally, the research questions are introduced and definitions pertinent to this study are provided.

Background

Secondary teachers' beliefs about their abilities to manage a classroom influences their attitudes and classroom environment (Glackin, 2019). Teachers who recognize their worth and abilities can display positive teaching behaviors, including structured classroom environments, clear expectations, organization, and quality instruction (Love et al., 2019). Teachers' self-efficacy refers to effective and innovative teaching strategies, student achievement, and differentiated instruction (Kiel et al., 2020). When teachers realize the influence that they have on their students through the environment that they create, their efficacy grows because of the immediate feedback they receive from their students. Woodcock and Jones (2020) explained that teacher self-efficacy is developed and nurtured through (a) experiencing and observing success and failure; (b) verbal feedback or praise from students, colleagues, or administrators; (c) the amount of positive or negative experiences one has when preparing and practicing activities; and

(d) mastery experiences. When teachers experience these items they can build confidence because they acquire honest feedback regarding their ability to succeed.

Teachers who perceive themselves as adept are more likely to create environments where all students can learn. When teachers realize their influence on students, they can create an environment that fosters growth. Kuronja et al. (2019) explained that teachers need to pay particular attention to creating a safe learning environment where students feel safe, accepted, and participate in an atmosphere that considers their needs. The level of teachers' self-efficacy impacts their ability to use classroom management and instructional practices to keep students engaged, promote student autonomy, and create quality, differentiated instruction (Poulou et al., 2019). Inclusive classrooms call for confident, self-efficacious teachers who can adapt their teaching to pupils' diverse learning needs (Schipper et al., 2018). Secondary teachers, who often display self-efficacy as experts in their field of study, have positive and negative attitudes about their ability to teach all students. Ismailos et al. (2022) explained that teachers need to understand that inclusion extends beyond a geographical shift in the classroom and incorporates a differentiated mindset focused on all learners' abilities and needs; the general educator must take responsibility for all students' learning.

Historical Overview

Inclusive education means that diverse students including those with special educational needs (SEN) have the right to be taught in general education classrooms with peers who develop typically at the same age (Alzahrani, 2020). In the 1960s UNESCO began advocating for all children to be educated in an inclusive setting that aims to ensure an equitable education for all students (Spandagou, 2021). While general on principle, the Salamanca statement is identified as the international breakthrough for inclusive education (Alzahrani, 2020; Nilholm, 2021). From

this statement, countries across the globe began applying new strategies in the education system to ensure that all students' needs are met (Alzahrani, 2020).

Inclusion has developed to be understood on multiple layers. The first layer refers to the educational practice used by teachers focusing classroom instruction and teaching strategies. The next layer examines the inclusion of practitioners of a community of inquiry (Korsgaard et al., 2020). Inclusive education has developed in recognizing that schools are about belonging, nurturing, and educating all students regardless of their ability, culture, gender, language, class, and ethnicity (Savolainen et al., 2012). The term inclusive education encompasses a wide variety of needs; however, this study focuses on inclusion as it refers to students with special needs.

Teachers' perspectives and roles about inclusive education are shaped by societal, political, economic, and cultural aspects (Savolainen et al., 2012). Teachers' attitudes and perspectives pertaining to inclusive education are influenced by the problem they face while practicing inclusion (Deepika, 2017). Teacher self-efficacy refers to a teacher's perceived ability to help students reach desired outcomes (Keppens et al., 2021). Teacher efficacy directly impacts student achievement. Ismailos et al. (2022) explained that if teachers believe they can teach all students and think that they contain the necessary skills to do so, they will work harder and persist stronger to see that all students achieve success. Teacher self-efficacy is an extension of Bandura's social cognitive theory and continues to be used to assess teachers' perceptions to increase current instructional practices (Woodcock et al., 2019).

Society-at-Large

Schipper et al. (2018) explained that inclusive education ensures all students, regardless of needs, are given an equitable education to be prepared to exhibit 21-century skills and succeed in the real world. Ismailos et al. (2022) discussed that inclusion benefits all students, not just

those with special needs. The inclusive environment provides an opportunity for students to work in a diverse setting, learning to accept others. Gigante and Gilmore (2020) explained that an inclusive education involves valuing, appreciating diversity, and encouraging human interaction to support the participation of all children. By creating an environment that is welcoming to all, students are given real-world experiences using 21-century skills, and teachers can nurture students' needs (Huang et al., 2019).

To establish an inclusive environment, secondary teachers must feel capable of doing so (Woodcock & Jones, 2020). Teachers who feel appropriately trained, capable of meeting all students' needs, and are equipped with the proper resources are more effective in their instructional practices (Lazarides et al., 2020). When teachers feel capable, the learning environment is positively impacted. Woodcock and Jones (2020) explain that secondary schools take a top-down approach, meaning information, lessons, and environment are established by the teacher and accessed by students. To ensure that the academic environment is meeting all students' needs, teachers need to feel capable of providing inclusive instruction and are willing to receive support in areas they struggle with (Keppens et al., 2021). Teachers must also have the knowledge to adapt to students' needs while managing a classroom by appropriately using resources and strategies (Lazarides et al., 2020).

Theoretical Background

Theoretical frameworks of the self-efficacy theory (Bandura, 1986), social cognitive theory (Bandura, 1999), and self-determination theory (Ryan & Deci, 2020) are the premise for examining the impact of teacher self-efficacy regarding classroom management and the inclusive setting. Secondary teachers' beliefs about their abilities to manage a classroom impact their attitudes and classroom environment. Woodcock et al. (2019) explained that teacher efficacy

extends Bandura's social cognitive theory and self-efficacy theory. It captures a teacher's belief in their ability to organize and execute the tasks required to accomplish a particular teaching action. Kiel et al. (2020) showed that teachers' self-efficacy refers to effective and innovative teaching strategies, student achievement, and differentiated instruction.

In this study, the researchers use the self-efficacy theory to show that teachers with higher self-efficacy have perceived themselves as more apt in implementing inclusive instruction, while those with lower self-efficacy need to be identified and supported to improve, and collaboration between teachers should be supported to improve efficacy (Kiel et al., 2020). Several factors can influence teacher self-efficacy. Chao et al. (2017) discussed how secondary teachers consider their jobs stressful due to the heavy workloads, time restraints, educational reforms, external school critics, pursuing further education, managing student behavior, and having responsibility for students' learning. Lazarides et al. (2020) explained that classroom management self-efficacy is a teacher's judgment of their capability to perform classroom management tasks in the face of difficulties successfully; for example, by interacting with individuals or groups, setting classroom guidelines, creating expectation or rules, and by controlling disruptive behavior. The self-efficacy theory is an avenue to examine how teachers feel about their abilities to handle diverse learners through behavior management skills in a general education classroom (Savolainen et al., 2012). Zee et al. (2020) found that teachers who display confidence and believe in themselves are more apt to model warm, supportive environments that promote academic, social, and behavioral growth. To best serve all students, the self-efficacy theory must be examined.

The social cognitive theory is comprised of human capabilities: symbolizing, forethought, vicarious, self-regulatory, and self-reflective (Morris et al., 2017). The social cognitive theory

explains that a person's actions and behaviors are impacted by past and present experiences (Bandura, 2012; Lazarides et al., 2020; Morris et al., 2017). Through a person's environment and experiences, Bandura (2012) explained that individuals learn cognitive, social, emotional, and behavioral knowledge. These knowledge constraints work together to develop a person's perception of the impediments and opportunities in situations. Bandura (1999) discussed that these knowledge structures are formed from modeled behavior and thinking from exploratory activities, verbal directions, and creative knowledge synthesis. Woodcock et al. (2019) displayed in their study that the social cognitive theory gives teachers insight into their beliefs, attitudes, and drives toward inclusivity and classroom environment. Lazarides et al. (2020) discussed how the social cognitive theory suggests that once self-efficacy is established, it continues to develop; however, it is impacted the most in the early stages of development, like when a teacher's career begins or when they are exposed to new experiences and training. The study revealed that teacher self-efficacy developed from Bandura's social cognitive theory; as teachers reached the middle of their careers and had experience managing inclusive classrooms, they perceived themselves as having higher efficacy (Lazarides et al., 2020). The social cognitive theory establishes how individuals interact in different scenarios based on perceived efficacy, past experiences, and environmental comfort (Bandura, 2012). Granziera and Perera (2019) discussed how the social cognitive theory proves a framework for self-efficacy linked to performance and satisfaction in the education setting.

The self-determination theory links personal beliefs to the motivators behind decision-making. The self-determination theory (SDT) emphasizes that people have an intrinsic and extrinsic motivation that influences their development and provides insight into how they can further develop through support (Ryan & Deci, 2020). SDT explains that basic psychological

needs must be met for individuals to grow. Ryan and Deci explained that individuals need to have a sense of autonomy for their actions, experience competence, and have a sense of relatedness. When these areas are addressed, individuals believe that they can achieve tasks and are more motivated. SDT addresses needs being met or frustrated, which impacts an individual's effort or desire to complete tasks. Ryan and Deci explained that "confidence, self-esteem, and mental health are all deeply affected by whether what happens in schools supports or thwarts basic psychological needs" (p.4). The SDT explains that when individuals have positive experiences, they demonstrate more autonomy and are motivated to face cognitive, emotional, and cultural barriers. These theories explain the relationship among secondary teachers' perceived abilities, attitudes, and beliefs about classroom management and teaching in an inclusive environment (Bandura, 1986, 1999; Ryan & Deci, 2020; Schipper et al., 2018).

Problem Statement

Inclusive education should focus on enabling all students' to actively participate while celebrating diverse abilities and promoting communication and learning so that all students connect and develop twenty-first-century skills in a meaningful way. General education teachers must meet all students' needs in their classrooms, while also preparing them for success. This leaves teachers of all experiences, pre-service and in-service, feeling a need for training to teach in an inclusive classroom setting (Woodcock & Jones, 2020). In 21st century schools, teachers must believe that they can meet their students' needs and be confident in their ability to teach in an inclusive setting (Schipper et al., 2018). Kiel et al. (2020) explained that teachers with higher self-efficacy seem to be stakeholders for helping progress the inclusion of students with special needs. When teachers feel like they have the ability, skills, and knowledge to help all of their students, they are more likely to have a positive attitude and exhibit a willingness to try.

Teachers who believe that they can manage a classroom effectively tend to have higher self-efficacy and teachers who have lower self-efficacy tend to perceive themselves as having less structure and control of their classrooms (Lazarides et al., 2020).

When teachers have knowledge and experience teaching in an inclusive setting, all students benefit (Glackin, 2019). Kuronja et al. (2019) explained that inclusion is a dynamic approach of responding positively to all students, regardless of needs, and provides them with opportunities to learn alongside peers to help them grow socially and academically. When secondary teachers have experience teaching in an inclusive setting, they can strengthen their instruction. In fact, the strategies and inclusive practices are being used to help students with and without disabilities and provide teachers with various classroom management tools (Sharma & Sokal, 2016). Ismailos et al. (2022) explained that in-service teachers are generally positive about inclusive theory; however, they negatively respond when asked about inclusive practices because they do not know how to best implement these strategies. In order for teachers to improve, they must believe that they can perform the tasks they are presented with. When teachers reduce teaching negativity and reflect on improving challenges from inclusive practices, they will build positive teaching behavior, beliefs, and practices (Lazarides et al., 2020). The problem is that the literature has not fully addressed how the relationship between in-service secondary teachers' attitudes about the inclusive setting (Subban et al., 2018), their general and personal efficacy (Hernandez et al., 2016; Kiel et al., 2020; Kuyini et al., 2020; Perrin et al., 2021), their beliefs about their ability to engage students (Lazarides et al., 2020), their use of instructional practices (Colson et al., 2021; Kuronja et al., 2019), and their classroom management techniques (Kuronja et al., 2019; Lazarides et al., 2020) can lead to increased learning opportunities for all students (Ismailos et al., 2022).

Purpose Statement

The purpose of this quantitative, correlation study is to determine if there is a relationship between in-service secondary teachers' self-efficacy regarding the subscales of student engagement, instructional practices, and classroom management, and in-service secondary teachers' attitudes toward the inclusive setting. The explored variables are student engagement, instructional practices, classroom management, and attitudes toward the inclusive setting. Kuronja et al. (2019) explained that student engagement is the ability to involve students in lessons by addressing their personal needs, creating a safe learning environment, and providing a safe space where students are accepted and able to participate in learning process. Instructional practices refer to teachers' abilities to create and organize the teaching and learning processes through a variety of instructional strategies and techniques as well as assessment methods (Lindner & Schwab, 2020). Lazarides et al. (2020) explained that classroom management is defined as how teachers control behaviors, create and enforce guidelines, expectations, and rules, and interact appropriately with different groups of students. Teachers' attitudes about the inclusive setting refers to the way teachers feel about inclusion, which is shaped by their knowledge about disabilities, feelings about individuals with disabilities, willingness to interact with people with disabilities, and personal experiences (Avramidis et al., 2019). The population for the study consists of in-service middle and high school level educators from a single, rural school district in eastern Pennsylvania who have taught in an inclusive setting for at least one year. Participants are from one high school and two middle schools. The study's findings can be used to offer support for teachers to build self-efficacy regarding student engagement, instructional practices, and classroom management within the inclusive setting by identifying areas of need for further training.

Significance of the Study

Research indicates that teachers' self-efficacy influences how they teach, shaping their ability to evaluate classroom situations and make instructional decisions (Keppens et al., 2021). Despite the extensive research about teachers' self-efficacy working with students, there is limited research focusing on in-service general secondary education teachers in the United States. Woodcock and Jones (2020) explained that understanding and interpreting inclusive practices vary considerably across demographic areas, making it necessary to understand various boundaries and perspectives associated with inclusive education. Many studies examine self-efficacy through the lens of primary teachers (Ismailos et al., 2022; Keppens et al., 2021; Kiel et al., 2020; Yakut, 2021), preservice teachers (Gigante & Gilmore, 2020; Ismailos et al., 2022), and teachers from other countries (Gigante & Gilmore, 2020; Ismailos et al., 2022; Lazarides et al., 2020; Woodcock et al., 2019; Woodcock & Jones, 2020) but lack the focus of in-service secondary educators in the United States of America.

For teachers to perform successfully and handle the demands of the inclusive setting, they need to adopt innovative teaching strategies and believe that they can differentiate instruction to meet all students' needs (Kiel et al., 2020). It is necessary to understand that teachers' perceptions of inclusion are significant to successfully implementing inclusive practices (Woodcock et al., 2019). By identifying efficacy beliefs concerning student engagement, instructional practices, classroom management, and inclusive settings, teachers can be provided with appropriate resources, personalized professional development, and opportunities to gain awareness of their attitudes toward inclusion, ultimately benefitting all students (Kiel et al., 2020; Woodcock et al., 2019).

Research Questions

RQ1: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *student engagement* and their attitudes toward inclusive classroom settings?

RQ2: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes toward inclusive classroom settings?

RQ3: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *classroom management* and their attitudes toward inclusive classroom settings?

Definitions

1. *Attitude toward inclusion*-The way teachers feel about inclusion, which is shaped by their knowledge about disabilities, feelings about individuals with disabilities, willingness to interact with people with disabilities, and personal experiences (Avramidis et al., 2019).
2. *Classroom management*- The ability to control behaviors, create and enforce guidelines, expectations, and rules, and interact appropriately with different groups of students (Lazarides et al., 2020).
3. *Classroom management self-efficacy*- Classroom management self-efficacy is a teacher's judgment of their capability to successfully perform classroom management tasks in the face of difficulties by interacting with individuals or groups, classroom guidelines, expectations, and rules and ability to control disruptive behavior (Lazarides et al., 2020).
4. *Inclusive education*- This is the fundamental human right to equal education through the recognition and elimination of barriers that restrict equal access to education for all learners (Ismailos et al., 2022).
5. *Inclusive setting*—a general education classroom where students with and without learning disabilities belong and learn together (Ismailos et al., 2022).

6. *In-Service teachers*- Teachers currently working in the classroom (Woodcock & Hitches, 2017).
7. *Instructional practice*—Teachers’ ability to create and organize the teaching and learning processes through a variety of instructional strategies and techniques as well as assessment methods (Lindner & Schwab, 2020).
8. *Self Determination Theory*- A broad framework for understanding frameworks that undermine intrinsic and extrinsic motivation and psychological wellness in the educational setting (Ryan & Deci, 2020).
9. *Self-efficacy*- Self-efficacy is one’s belief in his or her capabilities to organize and execute a course of actions to achieve the desired outcome (Woodcock et al., 2019).
10. *Social Cognitive Theory*- This theory provides a mechanism for knowledge of self; it is a framework for predicting behavior; individuals can use this to participate and impact their self-development over time (Woodcock et al., 2019).
11. *Student engagement*-The ability to involve students in lessons by addressing their personal needs, creating a safe learning environment, and providing a safe space where students are accepted and able to participate in learning process (Kuronja et al., 2019).
12. *Teacher self-efficacy*- A teacher’s belief in his or her capability to organize and perform tasks affiliated with teaching (Woodcock et al., 2019).

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to investigate secondary teachers' self-efficacy toward an inclusive classroom. This chapter will present a review of the current literature related to the topic of attitudes, beliefs, and practices. In the first section of the review, the theoretical framework is established. This study is grounded in Bandura's (1977) self-efficacy theory, Bandura's (1989) social cognitive theory, and Ryan and Deci's (2000) self-determination theory. This is followed by a discussion of the current literature on inclusion, teacher self-efficacy, and how teachers' attitudes and beliefs towards the inclusive classroom are impacted. The literature also discusses ways to evaluate the efficacy, provide training, and incorporate strategies into the classroom to increase inclusive practices. The chapter ends with a summary.

Theoretical Framework

The role of the theoretical framework is significant to the process. It provides researchers with reasons for why the behavior is occurring and insight into areas of further research. This literature review is focused on three theories: self-efficacy theory, social cognitive theory, and self-determination theory. It explores how each theory impacts teachers' self-efficacy within the inclusive classroom.

Self-Efficacy Theory

The self-efficacy theory developed by Bandura (1977, 1986) is directly connected, and often examined, through the theoretical lens of the social cognitive theory (Keppens et al., 2021; Lazarides et al., 2020). Self-efficacy is the belief in one's capabilities to organize and use given skills to perform actions (Woodcock & Jones, 2020). The way an individual synthesizes and

processes information directly impacts their self-efficacy judgment. Efficacy expectations influence how much effort individuals will put into tasks and impact the level of persistence that people display when faced with challenging experiences (Bandura, 1977). The self-efficacy theory explains that this judgment is influenced by how information is conveyed inactively, vicariously, persuasively, or physiologically, and how the material is weighted and integrated to make personal decisions about self-ability (Bandura, 1986). These judgments further influence human functioning by affecting an individual's choice behavior, efforts, and perseverance to complete complex tasks, self-hindering thought patterns, and reactions to various environmental demands (Bandura, 1986, 1999).

Based on personal experiences, the self-efficacy theory explains that a person develops a perceived self-efficacy that is either motivating or debilitating (Bandura, 1986; Woodcock & Jones, 2020). Perceived self-efficacy is either high or low and is impacted by past experiences, environmental impacts, and relationships (Bandura, 1999). In order to complete a task, individuals need knowledge and skills as well as confidence in themselves to perform (Keppens et al., 2021).

Woodcock and Jones (2020) discuss how the self-efficacy theory uses four sources of information: (a) vicarious experiences, (b) verbal persuasion, (c) psychological and affective states, and (d) mastery experiences. Vicarious experiences occur when individuals can see others perform threatening activities and succeed; these experiences persuade individuals that they can achieve success if they persist in their efforts (Bandura, 1977). Yada et al. (2019) explain that vicarious experiences play a vital role in helping individuals understand what they are being asked to do when the criteria of proficiency or expectation are unclear. Verbal persuasion occurs when individuals are persuaded by others who have experienced activities that they are capable

of overcoming obstacles that may have been challenging in the past (Bandura, 1977). Desombre et al. (2019) discuss how verbal stimulation impacts an individual's affective and emotional states, impacting their stress, anxiety, and mood, which directly affects personal judgments about teaching ability. The amount of positive and negative encounters an individual experiences when preparing and practicing activities impacts their psychological and affective states (Woodcock & Jones, 2020). When people judge their capabilities, higher stress levels or negative emotions undermine perceived self-efficacy creating barriers for success or positive feelings (Yada et al., 2019). Mastery experiences, also known as performance accomplishments, are tangible experiences that allow individuals to receive accurate and authentic feedback regarding their ability to succeed (Bandura, 1977; Woodcock & Jones, 2020).

These activities give individuals tangible experiences to develop their skills and understanding, ultimately providing personal indicators of perceived capabilities (Bandura, 1986; Woodcock & Jones, 2020). Tschannen-Moran and Johnson (2011) explain that when teachers believe that they can influence students' motivation and learning, their students are more likely to exhibit achievement than students who have teachers that do not navigate learning impediments. A person's beliefs about individual abilities serve as motivators to face challenges or avoid them, leading to self-directedness and personal choice (Bandura, 1999).

Social Cognitive Theory

The social cognitive theory developed by Bandura provides a glimpse into human functioning, where individuals are influenced by their behavior, environment, and personal factors (Bandura, 2012; Morris et al., 2017). It uses triadic reciprocal causation to explain how the domains of personal factors, the environment, and behaviors interact and influence each other when developing competencies and learning to self-regulate (Bandura, 1999, 2012). Bandura (1989) explains that people contribute to their behaviors within a system of triadic reciprocal

causation. The social cognitive theory is comprised of human capabilities such as symbolizing, forethought, vicarious, self-regulatory, and self-reflective (Morris et al., 2017). The social cognitive theory explains that a person's actions and behaviors are impacted by past and present experiences (Bandura, 2012; Lazarides et al., 2020; Morris et al., 2017).

Through a person's environment and experiences, Bandura (2012) explains that individuals learn cognitive, social, emotional, and behavioral knowledge. These knowledge constraints work together to develop a person's perception of the impediments and opportunities in situations. Bandura (1999) discusses that these knowledge structures are formed from modeled behavior and thinking from exploratory activities, verbal directions, and creative knowledge synthesis. The social cognitive theory establishes how individuals interact in different scenarios based on perceived efficacy, past experiences, and environmental comfort (Bandura, 2012). The social cognitive theory lends itself to situations where people can enhance their well-being through individual agency and collective agency (Bandura, 1999). The theory influences how people communicate, pursue education, work through tasks, relate to one another, and conduct daily activities (Bandura, 2012).

Self-Determination Theory

The self-determination theory developed by Ryan and Deci (2020) links one's personal beliefs to the motivators behind decision-making. The self-determination theory (SDT) emphasizes that people have an intrinsic and extrinsic motivation that influences their development and provides insight into how they can further develop through support. People's lives are impacted by the goals they set for themselves and the internal and external motivations, and the social conditions that enhance or diminish these motivators (Deci & Ryan, 2008). SDT uses methods highlighting the importance of inner resources for personality development and behavioral self-regulation. SDT explains that basic psychological needs must be met for

individuals to grow. Individuals need to have a sense of autonomy for their actions, experience competence, and have a sense of relatedness (Ryan & Deci, 2000). When these three areas are addressed, individuals believe they can achieve tasks and are more motivated (Ryan & Deci, 2020).

SDT addresses needs being met or frustrated, which impacts an individual's effort or desire to complete tasks. Ryan and Deci (2020) explain that "confidence, self-esteem, and mental health are all deeply affected by whether what happens in schools supports or thwarts basic psychological needs" (p. 4). Ryan and Deci (2000) discuss the impact of environmental factors on self-motivation, social functioning, and personal well-being; the theorists explain that SDT is concerned with positive developmental growth and negative influences. The SDT explains that when individuals have positive experiences, they demonstrate more autonomy and are motivated to face cognitive, emotional, and cultural barriers. Ryan and Deci (2000) recognize that understanding peoples' basis for motivation growth tendencies and innate psychological needs must be investigated, and conditions must be provided to foster positive development.

Connection of Theories

The social cognitive theory, self-efficacy theory, and self-determination theory all examine individuals' interactions and beliefs about specific tasks and the reasons for completing them (Bandura, 1986, 2012; Ryan & Deci, 2020). The theories apply to teachers' sense of self-efficacy in recognizing that teachers' perceived beliefs impact their relationships and instructional strategies. Guidetti et al. (2018) explain that the concept of self-efficacy influences future beliefs impacting behavior, emotions, thoughts, feelings, and the ability to have grit through challenging situations. The social cognitive theory proposes that past experiences impact personal beliefs (Bandura, 1999; Lazarides et al., 2020). Lazarides et al. (2020) discuss how the social cognitive theory suggests that once self-efficacy is established, it continues to develop;

however, it is impacted the most in the early stages of exposure, like when a teacher's career begins and is exposed to new experiences and training. Bandura (1977, 1999) discusses that perceived self-efficacy plays an essential role in the social cognitive theory because it influences personal actions and impacts cognitive, behavioral, and environmental determinates. The social cognitive theory provides a framework for understanding how self-efficacy is linked to performance and satisfaction in the educational setting (Granziera & Perera, 2019).

The self-efficacy theory proposes that teachers with higher perceived capabilities are more willing to invest effort and time in their instructional practices (Bandura, 1986; Woodcock & Jones, 2020). Teachers with negative past experiences, insufficient training, or support have lower perceived self-efficacy resulting in decreased motivation and resilience (Tschannen-Moran & Johnson, 2011). The self-determination theory explains that teachers need to have a sense of ownership, experience competence, and exhibit a sense of belonging to enhance their motivation and build their efficacy (Ryan & Deci, 2020). When teachers' basic needs for autonomy, competence, and relatedness are met, and they feel like they are in an environment that supports their needs, they are more likely to be motivated to develop personally and professionally to meet the demand of supporting students' needs (Jansen in de Wal et al., 2020). This literature review uses the three theories to explain the relationship between secondary teachers' perceived abilities, attitudes, and beliefs in teaching in an inclusive environment. The social cognitive theory relates the determinates of the study, the self-efficacy theory explains teachers' perceived abilities, and the self-determination theory recognizes the need for intrinsic and extrinsic motivation when examining instructional practices (Bandura, 1986, 1999; Ryan & Deci, 2020) within diverse educational settings such as the inclusive classroom.

Related Literature

An extensive review of literature addressed the concept of inclusion and associated attitudes and beliefs about inclusive practices. Patterns in the literature revealed that teachers' perceived self-efficacy is related to their attitudes and beliefs about the inclusive classroom and results in positive or negative attitudes that directly impact student engagement, instructional practices, and classroom management. To better meet students' needs, teachers need to be given opportunities to enhance their beliefs, practices, and relationships.

Concept of Inclusion

Schools are responsible for teaching all students by recognizing and eliminating barriers that restrict students from gaining equal access to education (Deepika, 2017; Ismailos et al., 2022). Inclusive practices in education refer to extending rights of all students through acknowledging the need to recognize diversity, equity, and inclusion (Calabrese Barton & Tan, 2020). In this study, inclusion will focus on students with disabilities. Cook and Ogden (2022) explain that all children should be equally valued within a school culture and be able to participate actively regardless of their individual needs. Inclusive education allows for students with disabilities to be taught by general education teachers in the regular education classroom (Deepika, 2017; Krischler et al., 2019; Subban et al., 2018).

Inclusive education can be seen as a way of strengthening the capacity of the education system to reach all learners; it is a principle that should guide educational policy and be grounded in the belief that education is a fundamental human right for all learners (Imaniah & Fitria, 2018). Mintz et al. (2020) explain that inclusive education is seen as a way to encompass all learners, especially those marginalized or likely to be excluded, but is not restricted to those

with special needs; the term inclusion accounts for academic ability, cultural barriers, and language barriers.

Inclusive education must be complemented with quality indicators; it must offer all students the chance to achieve high academic achievement, positive relationships with typically developing peers, and provide opportunities for school involvement (Szumski et al., 2022). Westling (2019) and Farmer et al. (2019) discuss how students with disabilities should be educated in the least restrictive environment to ensure that they are given access to the general education curriculum. It is the school's responsibility to establish a framework that prepares students for the larger world by developing a system that allows for the participation of all students in multiple settings, regardless of their needs (Weiss et al., 2019). Farmer et al. (2019) explain that inclusive education strives to improve the academic outcomes of students with disabilities by enhancing their access to the general education curriculum while using a positive support system to ensure that students are given an equitable opportunity to learn alongside their peers. By including all students in the general education classroom, schools become a place about belonging, nurturing, and educating all students regardless of their needs (Krischler et al., 2019).

San-Martin et al. (2021) explain that inclusive education goes beyond the focus of specific disabilities by focusing on developing educational practices based on human rights, dignity, equity, and justice to promote presence, participation, and learning from all students. Teachers are responsible for adapting lessons and differentiating materials to meet all students' diverse needs in an inclusive classroom (Kiel et al., 2020). Teachers must customize their teaching to recognize the potential of each child, regardless of needs and ability, so that each child is given opportunities to develop through stimulating lessons adapted to students' academic

levels, interests, backgrounds, and needs (Vantieghem et al., 2020). Westling (2019) explains that if programs are not appropriately designed and if teachers are not adequately prepared, students' needs, progress, and social interactions will not be supported. General education teachers must modify content, approaches, structures, and strategies with an outlook that includes the needs of a diverse classroom (Imaniah & Fitria, 2018). As students' needs change, the concept of inclusive education does, too; to effectively meet all students' needs, secondary general education teachers' attitudes and beliefs about inclusion must be examined (Deepika, 2017; Keppens et al., 2021). Through this examination, teachers can gain insight and adjust their beliefs to meet the needs of diverse students.

Attitudes and Beliefs about Inclusion

Inclusion requires a shift in the instruction occurring in the general education classroom setting. It incorporates a shift in mindset that focuses on all students' abilities and needs in the classroom (Deepika, 2017; Ismailos et al., 2022). Teachers must believe they can adjust their regular classroom activities to provide differentiated tasks to students with special education needs (Chao et al., 2018). Bař (2022) explains that the effectiveness of inclusive education for students with various learning needs depends on the teachers themselves. Teachers with experience in the inclusive environment tend to have a positive attitude about the concept of inclusive education (Miesera et al., 2019). Imaniah and Fitria (2018) explain that teachers must recognize that all students, regardless of needs, can achieve the four pillars of twenty-first-century education—learning to know, do, be, and live together. This approach will help teachers work toward promoting a positive attitude and fostering tolerance and inclusion.

Research has shown that teachers' attitudes and beliefs toward inclusion are influenced by the political, social, cultural, and educational environments (Kiel et al., 2020; Woodcock &

Jones, 2020; Yada et al., 2018). Ewing et al. (2018) explain that teachers' attitudes affect whether or not a classroom learning environment is conducive to inclusive education or not; if a teacher feels insufficiently trained or concerned about simultaneously meeting all students' needs, they will exhibit a negative attitude regarding their ability to teach a whole class effectively. Attitude is closely aligned to beliefs and expected outcomes; teachers are more likely to exhibit a positive attitude about the situation when they believe that a particular behavior will lead to the desired outcome (Mintz et al., 2020). Positive teacher attitudes, awareness, and knowledge are essential elements of inclusive education (San-Martin et al., 2021). Attitudes about inclusion are complex and include cognitive, affective, and behavioral dimensions. The cognitive dimension reflects teachers' beliefs regarding inclusion, the affective dimension identifies associated emotions, and the behavioral dimension reflects teachers' intentions to act in a particular manner (Werner et al., 2021).

Cook and Ogden (2022) explain that teachers generally agree that inclusive education is necessary for social justice; however, secondary teachers doubt their abilities to support students with special needs in a general education setting. Subban et al.'s (2018) research found that while secondary teachers display positive attitudes about the philosophy of the inclusive environment, they have concerns about the pressures, workload, and practice of including diverse students in their classrooms. Desombre et al. (2019) explain that teachers' attitudes about inclusion are determined by the extent to which they have to modify instructional practices and the nature of the student's needs and must adhere to outlined accommodations. Teachers' attitudes are influenced by the teacher, student, and school-related variables; how teachers feel about inclusive practices may be impeded by large class sizes, lack of resources for effective teaching, lack of parental involvement, lack of funding, excessive workloads, and lack of teaching aids

(Crispel & Kasperski, 2021). Weiss et al. (2021) explain that resources, including working conditions and instructional tools, impact teacher attitudes and should be considered when fostering social acceptance of inclusive practices. Secondary teachers are trained as content specialists and see over 100 students a day, making differentiating a daunting task (Deepika, 2017; Ismailos et al., 2022; Subban et al., 2018; Woodcock & Jones, 2020).

Similarly, Deepika (2017) reports that while secondary teachers positively include students with disabilities in their classrooms, finding time and effort to develop knowledge and skills in inclusive education is not always a priority. Ismailos et al. (2022) report that secondary teachers reported an overwhelmingly negative perspective about inclusion due to the lack of administrative support and resources. To improve teachers' attitudes about inclusion, they must reconsider their beliefs. Teachers need to not only need to be aware of their beliefs but also feel that they are competent to teach in an inclusive environment; at the beginning of the year, general education teachers must have an understanding of all their students' learning needs and have knowledge of resources available to aid them in their instruction (Baş, 2022). Deepika (2017) explains that to effectively include all students in the general education classroom, content area teachers must have the necessary competencies, value diversity, see equal education as a right, feel supported in their efforts to teach in an inclusive environment (Sahli-Lozano et al., 2021) and have the will to include all learners. When secondary teachers achieve these items, they can improve their attitudes about teaching in an inclusive classroom, creating an atmosphere that promotes growth for all learners.

The attitudes and values teachers have toward students with special needs are influenced by the events that they have experienced in their education practices; therefore, discussions must occur regarding inclusive education so that personal experiences can be shared between teachers

with a variety of exposure in working with students in an inclusive environment (Weiss et al., 2019). To enhance secondary teachers' beliefs about inclusive education, there must be a societal change in attitudes, beliefs, and assumptions regarding students' diverse needs (Cook & Ogden, 2022). Emmers et al. (2020) explain that positive teacher attitudes and beliefs impact the effectiveness of teaching strategies and the established environment.

Inclusive Practice

The inclusive classroom includes all students, regardless of needs, and provides them with opportunities to learn alongside peers to help them grow socially and academically while supporting them to achieve at school life (Kuronja et al., 2019; Tumkaya & Miller, 2020). For students to be given these opportunities, secondary teachers must incorporate inclusive strategies and practices into their instruction (Deepika, 2017; Kuronja et al., 2019). Schwab and Alnahdi (2020) explain that collaboration, teamwork, and addressing social, emotional, and behavioral needs are necessary when evaluating inclusive teaching practices. The research examined by Deepika (2017) uses factor analysis to identify three main factors of inclusive education which are instruction, collaboration, and classroom management strategies. Inclusive practice requires educators to differentiate instruction by providing multiple options for taking in information, making sense of ideas, and allowing students to choose how they demonstrate what they have learned (Woodcock & Hitches, 2017). Inclusive learning environments must have an established culture, employ inclusive techniques and strategies, and be guided by policies (Emmers et al., 2020). To effectively meet students' needs, general education teachers need to facilitate learning for all students. Tumkaya and Miller (2020) explain that teachers who exhibit leadership, cooperatively plan with colleagues and parents, and are determined and prepared to teach all students display a positive mindset about inclusion. To examine teachers' concerns about the inclusive practices, Sharma and Sokal (2016) explain that the factor analysis they performed

found that the four common concerns among secondary teachers regarding inclusive education are the availability of resources, acceptance of students, concern about standards being met, and the added workload. The study found a strong negative correlation ($rs = -.80$ $p < .05$) suggesting that the more concerns teachers had about inclusive education influenced the strategies and techniques used within in their classrooms.

Kroesch and Peebles (2021) explain that education programs for general education teachers focus on their content material, classroom management skills, and assessment methods for homogeneous groups when in reality, general education teachers work with a variety of students; therefore, pieces of training need to be designed to incorporate special education content across disciplines to deliver a pedagogy that emphasizes evidence-based instructional strategies and experiences using inclusive strategies. Weiss et al. (2019) explain that when teachers work together to develop a culture of respect, recognize student diversity and share common objectives, collaboration efforts effectively plan and solve problems to ensure all students' needs are met. When teachers are given time to work together, they can focus on problem-solving, create valuable and practical interventions, and accommodate the demands of an inclusive learning environment so that instructional practices are effective for all students (Rasmitadila et al., 2021).

Teachers must recognize that inclusive practice takes dedication, and teachers must plan lessons that meet individual students' needs and interests (Tiernan et al., 2020). Subject teachers should be afforded opportunities to work with special education teachers to improve class quality for all members by enhancing their academic, behavioral, and emotional attitudes by employing suitable strategies (Rasmitadila et al., 2021). Secondary teachers need to connect content knowledge and instructional strategies to create a safe learning environment where all students

feel secure, accepted, and encouraged to participate in the class (Kuronja et al., 2019). When all students feel a sense of belonging, the classroom environment developed by the teacher promotes personal, social, and academic growth while encouraging students to have a positive attitude about the established classroom culture (Emmers et al., 2020). To improve teachers' attitudes about inclusion, it is necessary for teachers to feel supported by administrators, colleagues, and parents (Saloviita, 2019). When teachers and school leaders feel empowered and have access to learning resources, efforts toward implementing inclusive education rise, making inclusive practice and learning successful (Opoku et al., 2021).

Teacher Self-Efficacy

Teacher self-efficacy is part of a teacher's personal identity, an important personality trait that influences their decision-making and actions (Veronika et al., 2018). Woodcock et al. (2019) explain that teacher self-efficacy is an addition to Bandura's social cognitive and self-efficacy theories. It captures teachers' beliefs in organizing and completing tasks associated with specific actions (Van Mieghem et al., 2022). Yada et al. (2018) explain that teacher self-efficacy refers to teachers' beliefs about their ability to positively affect student development in academic settings, personal interests, or motivation. The literature revealed that teachers' self-efficacy refers to innovative teaching strategies, student achievements, and differentiated instruction to motivate and engage all learners, regardless of needs (Desombre et al., 2019; Kiel et al., 2020; Schipper et al., 2018). Smothers et al. (2020) discuss how self-efficacy beliefs are connected to teacher effectiveness, positive student outcomes, and positive attitudes about all students' capabilities and learning abilities. Lauermann and Berger (2021) discuss that self-efficacy directly impacts teachers' motivation because their confidence influences how willing they are to master tasks, achieve goals, aspire to reach all students, and persist or give up in the face of adversity. Yakut

(2021) explain that teachers' self-efficacy is one of the essential teacher characteristics connected to student learning, including those with diverse needs.

Teacher self-efficacy is developed and supported through (a) experiencing and observing failure; (b) verbal feedback, criticism, and praise from students, colleagues, or administrators; (c) the amount of positive and negative experiences one has when partaking in the planning and practicing of activities; and (d) mastery experiences (Woodcock & Jones, 2020). Teachers can build confidence through these factors because they acquire real-time feedback regarding their abilities. Van Mieghem et al. (2022) explain that self-efficacy is shaped by mastery experiences, vicarious experiences, social persuasion, and emotional and physiological indexes. Teachers' self-efficacy is grounded in their experiences in instructional settings (Kuronja et al., 2019). Bandura's (1977) theory approaches self-efficacy as a trait that fluctuates according to the task.

Woodcock and Faith (2021) explain that teacher self-efficacy is so broad that it influences attitudes about inclusive education, motivation and engagement of students, instruction, classroom management, and cooperation and collaboration with parents and colleagues. Instructional practices, classroom management, relationships, and student engagement measure teachers' self-efficacy (Zee & Koomen, 2016). Veronika et al. (2018) explain that a teacher is successful in their performance when they have the expectancy to handle a task without problems and when they are assured that they will reach expected results. Teachers' beliefs regarding their instructional capabilities influence the efforts they exhibit and the practices they use to reach all students, regardless of their diverse needs.

Teachers who are influenced by those around them and those who work in a school with a positive, supportive environment perceive themselves as more capable of working with students with learning needs (Wilson et al., 2020). Mintz et al. (2020) explain that the level of

confidence a teacher has about applying knowledge in solving problems or working through classroom situations is as important as possessing relevant content knowledge. When teachers believe that they can teach all students, their instructional practices improve, resulting in student growth (Emmers et al., 2020). Perera et al. (2019) explain that teacher self-efficacy varies according to the task being completed making it necessary to examine efficacy through multiple lenses. Teacher self-efficacy can be examined through three subscales: student engagement, instructional practices, and classroom management (Tschannen-Moran & Hoy, 2001).

Self-efficacy Subscale of Student Engagement

Teachers who believe that they are capable of meeting all students' needs are more likely to employ strategies to include all students and are likely to have higher levels of student engagement (Mireles-Rios et al., 2019). Student engagement can be examined through behavioral, cognitive, and affective dimensions. When students are connected to school, they are more likely to be invested in assignments, feel safe in their learning environment, and have established relationships with their teachers and peers (Larson et al., 2021). Lauermann and Berger (2021) explain that teacher self-efficacy refers to their perceived ability to engage all students and encourage learning even with unmotivated or challenging students.

Teachers who exhibit student engagement efficacy are confident in their ability to ensure that all students, regardless of needs, are involved and motivated to learn and participate (Wilson et al., 2020). Teachers who believe in their ability to reach all students and display higher efficacy are more enthusiastic in their approach, which serves as a model of engaging behavior, increases student behavior, and encourages investment in class and assignments (Mahler et al., 2018). Chang et al. (2022) explain that when teachers are characterized as having an environment that is warm, welcoming, respectful, and intentional, they are better received by

their students and are more likely to impact their learning, acceptance, motivation, and engagement.

Teachers who acknowledge that they are responsible for their students learning outcomes and recognize that they are part of the student's success will try to make them part of their lessons, encouraging participation and involvement (Fackler et al., 2021). Woodcock and Faith (2021) explain that teachers who exhibit lower levels of efficacy are more likely to blame students for their failure; in fact, they do little to alter student outcomes which ultimately affects the engagement, motivation, and expectation of future success by students. Student engagement is essential when creating an environment that encourages learning, relationships, and belonging; teachers who believe in their ability to promote these dimensions are more likely to report higher efficacy in the student engagement subscale (Larson et al., 2021).

Self-efficacy Subscale of Instructional Practices

Avramidis et al. (2019) explain that teachers' attitudes and beliefs about inclusion are shaped by life experiences, knowledge, and interactions with people with disabilities. When teachers feel like they are capable of teaching all students, they are more likely to adopt practices to help all students learn (Avramidis et al., 2019; Wilson et al., 2022). Schwab and Alnahdi (2020) explain that secondary teachers with positive attitudes and high efficacy recognize that one size does not fit all and incorporate strategies that benefit student development. Teachers who exhibit high efficacy are confident in their skills, encourage students to invest in the process and take risks, work to solve students' educational challenges and overcome learners' deficiencies (Hassan, 2019).

Wilson et al. (2020) explain that instructional practice efficacy relates to individuals' beliefs that they can design and implement various techniques to aid learning. Students with

learning disabilities have difficulty learning, understanding new or complex information, and articulating thoughts and ideas (Wilson et al., 2022). Students learn best when they are provided with opportunities to work alongside their peers in an environment that provides appropriate learning tasks, and teachers must feel confident in their abilities to implement inclusive techniques based on learners' needs and the learning tasks (Smith et al., 2020). For instructional practices to be effective in improving student learning, content must be differentiated to meet students' needs (Kilinç et al., 2021).

Teacher efficacy impacts one's ability to trust that they can adjust instruction to engage all students while promoting desired learning outcomes (Kilinç et al., 2021). Teachers who believe that they will influence student learning are more apt to take responsibility for creating high-quality lessons that will provide all students with positive academic outcomes leading to mastery of instructional practices (Matteucci et al., 2017). Goddard and Kim (2018) explain that if teachers work collaboratively on instructional practices, their mastery experiences may be impacted by their collaborative work, ultimately increasing their instructional teaching efficacy and improving student achievement.

Inclusive practices refer to how information is given to students through differentiated instruction, participative teaching, modifications, and strategies to break down learning barriers (Lindner & Schwab, 2020). Goddard and Kim (2018) explain that when differentiated instruction is implemented correctly, teachers know each student's strengths, needs, and interests and can employ strategies accordingly. Monteiro et al. (2019) discuss that it is not about whether teachers can handle the inclusive classroom but about their ability to choose strategies that promote success through their effort, planning, organization, persistence, and ability to rely on others to promote student learning and motivation. Teachers can intentionally improve the acceptance of

all students by implementing specific learning strategies, adjusting classroom organization, and modeling appropriate social interactions in their daily teaching routines (Garrote et al., 2020).

To help teachers with their instructional methods, it is necessary for them to have access to materials and resources to aid in the implementation of inclusive practices (Saloviita, 2019). Woodcock and Faith (2021) explain that teachers must believe they can modify tasks, assessments, and instruction for all students to create a thriving, inclusive environment. When teachers take time to evaluate their beliefs and are aware of their strengths and weaknesses regarding their instructional practices, all students benefit from increased effort (Glackin, 2019). Teachers must create instructional opportunities catering to students' varying ability levels while celebrating strengths and building on weaknesses (Woodcock & Hardy, 2017). Smith et al. (2020) explain that through the intentional use of professional development, teachers could increase their self-efficacy and enhance their implementation of inclusive instructional practices promoting a classroom environment that values students and promotes learning.

Self-efficacy Subscale of Classroom Management

Teacher self-efficacy regarding classroom management examines the extent to which a teacher believes that they can manage a classroom and navigate disruptive behavior (Conroy et al., 2019). Teachers who feel that they can handle a classroom of students with various behavioral needs have higher self-efficacy and are more satisfied in their relationships (Veldman et al., 2017). Wilson et al. (2020) explain that when teachers have effective classroom management efficacy, they can maintain an orderly, organized classroom. When teachers perceive themselves as capable, they are more willing to implement new strategies and explore management techniques (Conroy et al., 2019).

Lee and van Vlack (2018) explain that teachers who are aware of how they feel and regulate their emotions are more efficient in classroom management, discipline, and student interactions, allowing them to achieve teaching goals. Teachers who have higher self-efficacy are more tolerant in their interactions with problematic students, less likely to exclude students in their classroom, criticize students less, encourage autonomy and responsibility, and are persistent and patient in dealing with all students and their needs (Wettstein et al., 2021). Woodcock and Faith (2021) explain that teachers with higher self-efficacy are likely to display fewer frustrations and use cognitive reappraisal in the early stages of a situation to adjust their thinking and modify their reactions to exhibit high levels of classroom management.

Alasmari and Althaqafi (2021) explain that teachers' beliefs, experiences, knowledge, and self-awareness combined with classroom and school contexts impact their classroom management and the strategies they feel capable of implementing. Blatchford and Webster (2018) discuss the impact of everyday classroom contexts, such as class and grouping sizes, on management; they explain that educating students in large class sizes makes management difficult when meeting the needs of students. Teachers must be given class sizes that are manageable so that purposeful interactions can occur and relationships can develop; when students are placed in intentional environments, the benefits are seen through easing the management of class disruptions, allowing for easy implementation of necessary strategies, and aiding in the nature of learning experienced by students (Baş, 2022; Blatchford & Webster, 2018).

Successful classroom management is necessary for effective teaching and students' learning (Poulou et al., 2019). Farmer et al. (2019) discuss how teachers struggle to recognize that they can include all learners in an inclusive classroom because of their need to manage

students' academic, behavioral, communication, and social needs. When teachers do not believe that they can manage a classroom, it results in negative experiences and strained relationships with students, creating a hostile learning environment (Hayes et al., 2020). When teachers believe that they can create environments where students are at the center of instruction and all students' needs are accounted for, students are more engaged, show better learning success, and have fewer classroom disruptions (Fackler et al., 2021). Garrote et al. (2020) explain that teachers with higher efficacy and positive attitudes make a greater effort to adapt their classroom environments and management techniques to create appropriate learning, social, and emotional classroom atmospheres that are suitable for all students. Teachers must create a structure and enforce rules which promote the establishment of a culture that embraces norms, beliefs, and values that support positive interactions and meaningful experiences (Farmer et al., 2019).

For effective classroom management, teachers must balance a variety of demands. Kazanopoulos et al. (2022) explain that teachers perceived self-efficacy in managing students with disabilities is related to knowledge of specific disabilities, attitudes toward students, knowledge of learning theories and curriculum, use of materials, awareness of time management, ability to reflect on teaching practices and feedback, and willingness to invest in creating a student-centered framework that promotes successful management and uses disruptions as learning opportunities to enhance management. Huang et al. (2019) explain that teachers need to remain calm and positive in the face of disruptions and challenges and exhibit a level of strictness or authority that effectively facilitates classroom management while recognizing the need to build sound relationships through paying attention to and caring for students. When teachers are mindful of their abilities and recognize that all students can be invested in the classroom environment, they are more efficacious in their abilities to manage a classroom

(Moyano et al., 2021). Teachers must model how they expect their students to behave; teachers who are more efficacious influence classroom norms by establishing acceptable behavior, modeling positive social interactions, and setting the precedence to include all class members (Van Aalst et al., 2021).

Importance of Teacher Self-Efficacy

The research revealed that several factors could influence teacher self-efficacy. Self-efficacy regulates human functioning in four significant ways, including cognitive, motivational, mood, and selective approaches; teacher self-efficacy uses these modes of functioning to judge one's capability to implement inclusive teaching practices (Chao et al., 2018). Teachers' self-efficacy is based upon constructed beliefs and how people feel, think, behave, and motivate themselves to carry out and achieve tasks (Valckx et al., 2020). Subban et al. (2018) explain that secondary teachers find their jobs stressful due to heavy workloads, little time to plan and develop lessons, educational reforms, external critics, pursuing higher education, managing classroom behavior, and student learning (Chao et al., 2017). Hauerwas and Mahon (2018) explain that efficacy is impacted by the need to differentiate instruction to meet all students' needs, content pacing, large class sizes, and provided training. When teachers have experience working with diverse learners and know how to use inclusive strategies, they feel capable of creating positive learning environments. Teachers who do not have hands-on experiences often feel inadequate and have negative beliefs about their abilities to reach all learners (Chao et al., 2017).

The way teachers perceive their ability to teach all students impacts their classroom and the environment that they create. Finefter-Rosenbluh (2020) explain that teachers develop an interpretive framework throughout their years of teaching that comprises their perceptions,

cognition, and mental representations and operates as a lens through which they view and connect meaning to their professional performance regarding their ability to influence student learning and behavior. Lazarides et al. (2020) use a longitudinal study to explain that teachers' self-efficacy impacted their experiences and judgment of their capability to perform tasks, regardless of challenges, successfully; for example, by interacting with students, establishing classroom guidelines, developing expectations, and controlling unruly behavior. When secondary general education teachers feel like they can handle diverse learners, atmospheres are created where positive teacher attitudes enhance instructional practices benefitting all students (Parey, 2019). Teachers who have higher self-efficacy take on more significant challenges, exert more energy, are more flexible, are persistent in problem-solving, use innovative teaching strategies, and use differentiated instruction to enhance all students' achievements (Kiel et al., 2020). When teachers realize their influence on students, they can create an environment that fosters growth and maximizes development for the whole student.

Teachers who know their strengths and believe in their abilities are more apt to build positive relationships with students. Kuronja et al. (2019) uses descriptive statistics to show that the more teachers experience, the more encounters they have, which allows them to practice using effective strategies to address students' needs and behaviors. These interactions include controlling disruptive behavior, establishing classroom routines, providing personal interactions, and promoting personal relationships while building efficacy through hands-on experiences.

These first-hand experiences give secondary educators the opportunities to realize that they can create a positive classroom culture led by their knowledge and instructional abilities while meeting the needs of all of their learners (Emmers et al., 2020). The literature shows that teachers who value their work, display confidence, and believe in themselves are more likely to

establish a warm, supportive environment that promotes all learners' academic, social, and behavioral growth (Love et al., 2019; Zee et al., 2020) while creating a positive, inclusive classroom experience for all members.

Efficacy in the Inclusive Classroom

Inclusive classrooms need efficacious teachers who can change their teaching practices to meet students' diverse learning needs (Schipper et al., 2018). The literature reveals that secondary teachers who are experts in their content areas have mixed feelings about their ability to teach all students, which directly impacts their efficacy (Woodcock & Jones, 2020). Ismailos et al. (2022) use thematic clusters to evaluate teachers' self-efficacy and its relationship with inclusion. The research identified that teachers need to understand that inclusion extends beyond a geographical shift in the classroom and incorporate a differentiated mindset focused on all learners' abilities and needs; the study argued that the general educator needs to take the initiative and responsibility for all students' learning. Werner et al. (2021) explain that teachers must be aware of local and national policy regarding inclusion, understand the necessity of implementing inclusive strategies, and be guided by supportive and encouraging leadership to increase feelings of efficacy. Teachers' implicit beliefs about intelligence are connected to the effort put forth to promote a classroom environment that values students and promotes learning (Matteucci et al., 2017). Hauerwas and Mahon (2018) report that teachers view inclusion favorably and recognize the importance of meeting all students' abilities and needs; however, they feel unprepared to do so and feel like their efforts do not influence students' achievements.

Patterns in literature identify teachers as having high or low levels of self-efficacy based on personal experiences (Ismailos et al., 2022; Keppens et al., 2021; Sharma & Sokal, 2016). Yakut (2021) examines teachers' self-efficacy in working with learning support students and

those without students with special needs. Using Pearson's correlation, the study showed that teachers who had experience working with learning support students had a higher self-efficacy ($M = 5.28$) than those who did not ($M = 4.71$). Teachers felt more confident dealing with difficult situations, overcoming challenges, and instructional practices. Subban et al. (2018) explain that teachers with high self-efficacy toward inclusive classrooms believe that all students can learn in a general education classroom and are committed to seeing that students achieve success.

Teachers who have first-hand experiences have positive attitudes toward inclusion and often take responsibility for their learners (Avramidis et al., 2019). Schipper et al. (2018) explain that teachers with high self-efficacy employ various instructional strategies to reach all learners and view the demands of learner variation as an opportunity to improve personal practices, reach more learners, and make content applicable to all learners. Woodcock and Faith (2021) discuss how teachers with higher efficacy use an intrapersonal lens to examine students' performance, adjust instruction, and guide students based on their individual needs. Teachers who are more confident in their abilities to work in an inclusive environment are more likely to use techniques to improve student behavior, employ diverse instructional strategies, and engage students regardless of their willingness to succeed (Mireles-Rios et al., 2019).

Teachers who have low self-efficacy and negative attitudes about inclusive classrooms create barriers to student success (Sharma & Sokal, 2016). Trends in the literature show that educators with low self-efficacy do not believe that they can adjust their instructional practices to meet students' needs and have the perception that they are incompetent and underqualified to handle the challenges established by teaching diverse learners (Chao et al., 2017; Kiel et al., 2020; Subban et al., 2018). Kiel et al. (2020) use cluster analysis to identify teachers' efficacy in curriculum development at the 1% significance level. Teachers with low self-efficacy need

practical experiences, special training in subject content, teaching strategies, and collaborative opportunities. Secondary teachers' perceptions of feeling incompetent or underqualified result in teachers displaying low self-efficacy about supporting students with special needs and, therefore, failing to include inclusive strategies (Subban et al., 2018). Teachers with lower efficacy face the implementation of inclusion in their schools with anxiety and doubt; they perceive preparing lessons for various learning needs as complex, resulting in extreme stress and performance uncertainties (Weiss et al., 2021). When teachers have lower self-efficacy, they usually do not have the confidence to design lessons and implement strategies to meet all students' needs creating a division in presented learning opportunities. Woodcock and Faith (2021) explain that teachers with a lower efficacy are more likely to blame students and less likely to reflect on their beliefs and instructional practices.

Secondary teachers might not only feel underprepared to teach in an inclusive setting, but they may also develop negative attitudes about the challenges of implementing inclusive practices (Parey, 2019). Teachers can feel overwhelmed by the level of differentiation, the curriculum's demands, limited time for collaboration, students' skill level, ability, and instructional practices (Woodcock & Jones, 2020). Secondary teachers are not against meeting diverse students' needs in the general education classroom; they are just unsure about how to go about tackling inclusive practices (Subban et al., 2018).

Patterns in the literature show a relationship between teachers' self-efficacy and their attitudes regarding inclusive education (Ismailos et al., 2022; Schipper et al., 2018; Sharma & Sokal, 2016; Subban et al., 2018; Woodcock & Jones, 2020). Teachers who believe that they possess the skills necessary to teach all students will succeed and work harder to meet their needs (Ismailos et al., 2022). Woodcock and Jones (2020) discuss that the development of teachers'

self-efficacy permits the researchers to investigate teachers' beliefs in their capability to foster an inclusive environment, their ability to differentiate instruction, and provide support for all learners; school and classroom teachers need to make necessary adjustments to meet all students' needs. Similarly, Kiel et al. (2020) relate higher self-efficacy of teachers to innovative teaching strategies, successful judgments about their ability to perform specific tasks, enhanced student achievement, and differentiated instruction to establish positive contexts. Khanshan and Yousefi (2020) discuss that teachers need to examine their negative emotions and create positive relationships and environments to enhance the learning opportunities of all individuals. It is crucial that teachers have a friendly school environment, cooperation and support from the school, and collaboration with parents to aid in the implementation of a positive, inclusive culture (Chao et al., 2018). Woodcock and Hitches (2017) explain that experiences and training impact teachers' attitudes and efficacy. As stated in Subban et al. (2018), teachers' self-efficacy is a small idea with a significant impact, acknowledging that how teachers judge their perceived abilities to influence students' outcomes are connected to their attitudes and beliefs in the classroom and towards inclusion.

Recognizing and Developing Teacher Efficacy

To develop teacher self-efficacy, schools must be aware of teachers' needs (Avidov-Ungar, 2016). Teachers should be given surveys that require them to evaluate their beliefs and attitudes about the inclusive classroom to adjust their practices to meet the diverse needs of all students (Glackin, 2019). Different scales have been used to explore teachers' self-efficacy. Van Mieghem et al. (2022) explore the Teacher Sense of Efficacy scale to investigate teachers' beliefs about instructional strategies, classroom management, and student engagement. Patterns in the literature show the use of efficacy scales to determine how teachers feel about the inclusive

environment (Granziera & Perera, 2019; Kiel et al., 2020; Kuronja et al., 2019; Van Mieghem et al., 2022). A gap in the literature exists in evaluating what impacts American secondary teachers' attitudes and beliefs (Emmers et al., 2020) regarding student engagement (Lazarides et al., 2020), instructional practices (Colson et al., 2021; Kuronja et al., 2019), and classroom management (Kuronja et al., 2019; Lazarides et al., 2020) in an inclusive classroom (Subban et al., 2018) and how these items can be positively influenced to increase self-efficacy and classroom practices.

Opoku et al. (2021) explain that there needs to be a more conceptualized understanding of the factors impacting inclusive classrooms to enhance inclusive education. Once the relationships are identified, the data can be used to suggest development opportunities and create appropriate training and resources to improve teacher self-efficacy. Leifler (2020) explains that teachers could build confidence and gain a positive outlook about inclusive education when provided with professional development opportunities. Teachers need to be given personalized learning opportunities to fit their needs when teaching in the inclusive classroom (Wang & Zhang, 2021). Glackin (2019) explains that professional development is a continuous process that incorporates a series of experiences with purposeful tasks to be achieved. Schools need to accommodate teachers' needs as expectations for their instructional practice increase; they must develop teachers' knowledge about initiatives, address teachers' concerns, and develop programs to present new concepts and provide support (Barrio & Combes, 2015).

Carew et al. (2019) explain that the quality of training that teachers receive impacts their ability to effectively implement inclusive practices. For professional development to be worthwhile, it needs to be relevant, incorporate modeling and active learning, and provide opportunities for new pedagogies to be incorporated into the classroom; these components will help raise teacher efficacy (Schipper et al., 2018). The research completed by Glackin (2019)

found that professional development programs that influence self-efficacy need to compel teachers to think critically about their practices, behave actively in instructional improvement, and offer opportunities for mastery experiences. Baş (2022) explains that teachers need to reflect on their experiences with inclusive practices, recognize their strengths and weaknesses, have established time to collaborate with colleagues, and receive substantial training to increase their knowledge, promote positivity, and improve efficacy.

Secondary teachers must be given professional development opportunities to help them increase their efficacy in providing enhanced instruction to all learners while keeping a positive mindset (Ismailos et al., 2022). Chao et al. (2018) explain that it is necessary to recognize that secondary teachers need to have training that helps teachers to adjust their curriculum to meet a variety of needs. When teachers' needs are valued and adequate training is provided, teachers are more likely to develop their instructional skills and embrace the implementation of inclusive practices (Wang & Zhang, 2021).

Professional development must be given to secondary teachers to provide them with hands-on experiences with inclusive practices (Glackin, 2019; Lyons et al., 2016). Crispel and Kasperski (2021) explain that even teachers who acknowledge that they have a positive attitude about inclusion cannot overcome problems because they lack the understanding of issues and knowledge associated with inclusive practices. Jansen in de Wal et al. (2020) explain that teacher learning is necessary for teachers to make certain that they are aware of ongoing educational changes to ensure that all students receive a quality education.

The development teachers receive must be content-specific and offer usable strategies and instructional methods that focus on meeting the needs of all students (Kroesch & Peeples, 2021). Pit-ten Cate et al. (2019) discuss that teachers may feel efficacious regarding one aspect

of inclusive education but struggle with meeting the needs of certain groups; to help them build efficacy, it is necessary to provide development based on their specific needs. General teachers are often trained to meet the average students' needs; however, they must have a basic understanding of their students and know how to set goals, design instruction, and assess all students (Lopes & Oliveira, 2021). Professional development programs should be customized to address teachers' needs based on where they are in their careers (Yada et al., 2018). One way to increase teachers' efficacy is to allow collaboration between subject areas teachers and special education teachers (Monteiro et al., 2019). These collaboration opportunities will allow knowledge and skills to teach diverse learners to be shared (Baş, 2022; Glackin, 2019; Kuronja et al., 2019; Schipper et al., 2018).

Schipper et al. (2018) explain that for professional development to be effective, it needs to model a framework that can be used when teaching. Glackin (2019) discuss that teachers need to be given experiences that allow them to learn strategies such as differentiation of materials, hands-on activities, collaboration, chunking of assignments, opportunities to present materials, collaboration, and refining newly gained knowledge and skills. This process provides opportunities for knowledge to be shared, inclusive teaching strategies to be learned, attitudes to change, and self-efficacy to be enhanced. Weiss et al. (2021) discuss how specific training needs to be given to teachers on how to work, communicate, and collaborate when facing the demands of inclusion to reduce teacher stress and promote formal and informal building collaboration. Kuok et al. (2020) explain that to reduce teacher stress and exhaustion, professional development must improve teachers' instructional practices by providing them with the tools to provide relevant support for all students in the inclusive classroom.

Schools must provide teachers with opportunities to collaborate, learn through professional development, and reflect on practices that work and that do not work. Teachers will increase their self-efficacy through these strategies and be more likely to include inclusive practices in their content areas (Glackin, 2019). When secondary teachers enhance their classroom techniques through personalized development, they increase the opportunities for all students to experience personal, social, and academic growth. Smith et al. (2020) explain that teachers seeking professional development in inclusive practices will enhance their ability to implement inclusive practices, ultimately leading to positive experiences and academic gains.

Summary

Teacher self-efficacy directly impacts students in the inclusive classroom (Ismailos et al., 2022; Schipper et al., 2018; Sharma & Sokal, 2016; Subban et al., 2018; Woodcock & Jones, 2020). Teachers who have positive attitudes and beliefs about inclusion demonstrate higher efficacy in the inclusive environment, establishing practices to meet diverse learners' needs (Ismailos et al., 2022; Schipper et al., 2018). Teachers who are unsure about their ability to teach students with specific needs demonstrate a lower efficacy and are reluctant to include inclusive practices in their instructional strategies and content areas (Chao et al., 2017; Kiel et al., 2020; Sharma & Sokal, 2016; Subban et al., 2018). All students, regardless of needs, must be given opportunities to succeed in the general education classroom (Deepika, 2017; Ismailos et al., 2022). Secondary teachers often lack the knowledge to combine their content area with inclusive practices resulting in feelings of uncertainty and avoidance (Opoku et al., 2021). To enhance inclusive practices and teacher self-efficacy, schools must make sure that adequate resourcing is provided to meet the needs of all students and support social change which values the capacities of all students while promoting and enhancing the participation of all students by providing

opportunities to improve professional practices (Woodcock & Hardy, 2017). To ensure that teachers feel capable of teaching all students, schools must be aware of teachers' self-efficacy, provide specific professional training to meet their needs, and be given access to resources and strategies to use within their content areas (Glackin, 2019).

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative correlation study is to determine if there is a relationship between in-service, secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management, and in-service, secondary teachers' attitudes toward the inclusive setting. This chapter begins by introducing the study's design, including complete definitions of all the variables. The research questions and null hypotheses follow. The participants and setting, instrumentation, procedures, and data analysis plans are presented to conclude the chapter.

Design

The research study is a quantitative, correlational design which seeks to examine the relationship between variables. Gall et al. (2007) explain that correlation research designs allow researchers to study the relationship among multiple variables in a single study and how these variables affect the patterns in behavior. The number of relationships being explored determines whether a bivariate or multivariate method is used. A bivariate correlation is used to mathematically describe the relationship between two variables. A multivariate correlation is used if a study seeks to examine the relationship between three or more variables. Each research question has an independent variable associated with teacher self-efficacy and dependent variable of inclusive setting, thereby fitting the model of a bivariate correlation.

Gall et al. (2007) discussed how correlation studies explore casual relationships between variables. The purpose of the study is to examine the relationship between the variables of teacher self-efficacy subscales of student engagement, instructional practices, classroom management, and the inclusive setting; it fits to examine it through correlation. The research

design is a correlation study to examine the relationship between variables. Since this study seeks to examine the relationship between the variables of teacher self-efficacy regarding the subscales of student engagement, instructional practices, classroom management, and attitudes about the inclusive setting, a correlation study is appropriate.

Teacher self-efficacy is a teacher's belief in his or her capability to organize and perform tasks affiliated with teaching (Woodcock et al., 2019). The variable student engagement is defined as the ability to involve students in lessons by addressing their personal needs, creating a safe learning environment, and providing a safe space where students are accepted and able to participate in the learning process (Kuronja et al., 2019). Lazarides et al. (2020) defines the classroom management variable as a teacher's ability to control behaviors, create and enforce guidelines, expectations, and rules, and interact appropriately with different students. An inclusive setting is a general education classroom where students with and without learning disabilities belong and learn together (Ismailos et al., 2022). Teachers' Sense of Efficacy Scale is the instrument used to measure self-efficacy (Tschannen-Moran & Hoy, 2001) and The Scale of Teachers' Attitudes toward Inclusive Classrooms is used to measure attitudes (Cochran, 1997).

Research Questions

RQ1: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *student engagement* and their attitudes toward inclusive classroom settings?

RQ2: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes toward inclusive classroom settings?

RQ3: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *classroom management* and their attitudes toward inclusive classroom settings?

Hypotheses

The null hypotheses for this study are:

H₀₁: There is no significant relationship between secondary teachers' self-efficacy in regard to *student engagement* and their attitudes about the inclusive setting as measured by The Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

H₀₂: There is no significant relationship between secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes about the inclusive setting as measured by The Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

H₀₃: There is no significant relationship between secondary teachers' self-efficacy in regard to *classroom management* and their attitudes about the inclusive setting as measured by The Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

Participants and Setting

In this section, information about the participants and the setting of the study is described. The participants are teachers at the secondary level currently teaching grades 6-12. All participants have been teaching for at least a half a year within the same school district. The district is located in a rural area. The study was given to the participants electronically through Survey Monkey.

Population

The participants for this study were drawn from a convenience sample of in-service secondary teachers (Gall et al., 2007). The teachers have been employed at the middle schools or

high school in a school district for at least half a year. There are 132 secondary teachers in the district. The school is located in a rural area where the district is comprised of the lower to the middle class. The district is surrounded by farmland and is demographically large as it spreads across many miles.

Participants

For this study, the number of participants sampled was 67, which exceeded the required minimum when assuming a medium effect. Gall et al. (2007) explained, “66 participants are the required minimum for a correlation group when assuming a medium effect size with a statistical power of .7 at the alpha .05 alpha level” (p. 145). The sample came from two middle schools and one high school in the district and included 71 participants; however, only 67 of the surveys were fully completed and able to be used in the data analysis. Within the district, teachers who have taught in a general education classroom for at least a year were selected to participate in this study. Thirty-four teachers taught 6-8, and 33 teachers taught grades 9-12. Two teachers taught for .5-1 year, 10 teachers taught 2-5 years, 19 teachers taught 6-10 years, 8 teachers taught 11-15 years, and 28 taught more than 15 years. Fourteen teachers have a bachelor’s degree, 52 have a master’s degree, and 1 has a doctoral degree.

Setting

The teachers asked to participate in the study through survey completion are from a rural school district in southeastern Pennsylvania. Teachers asked to participate teach grades 6-8 at the middle level and 9-12 at the high school level. The district has two middle schools and one middle school. The district is comprised of 87% White students, 8% Hispanic students, 2% Black students, 2.6% Multi-racial students, and .4% Asian or Pacific Island students. Overall,

43% of the district is classified as economically disadvantaged. Twenty percent of the students receive special education services.

Instrumentation

To measure the variables of teachers' self-efficacy and classroom management, the Teachers' Sense of Efficacy Scale long form (Tschannen-Moran & Hoy, 2001) is used to survey participants about their beliefs regarding their abilities (see Appendix A). To measure the variables of teacher attitudes regarding the inclusive classroom, The Scale of Teachers' Attitudes towards Inclusive Classrooms (Cochran, 1997) examined teachers' beliefs about the inclusive setting (see Appendix B). Both instruments are given in survey form. The instruments were provided through an email containing a link to both surveys. The participants in the study are from one group and will each provide data on each of the examined variables.

Teachers' Sense of Efficacy Scale (TSES)

The TSES was originally developed as the Ohio State Teacher Efficacy Scale but was later renamed the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). The instrument was developed to build on previous work by Gibson and Dembo (1984) Tschannen-Moran & Hoy, (2001) explained that Gibson and Dembo (1984) sought to expand the surveying of efficacy beyond assessing one's ability to cope with difficult students to examine a wider range of teaching tasks and the impediments of an unsupportive environment. This instrument aims to determine teacher efficacy in student engagement, instructional practices, and classroom management. The instrument has been used in numerous studies to examine teacher self-efficacy (Berg & Smith, 2018; Colson et al., 2021; Kuronja et al., 2019; Lazarides et al., 2020; Woodcock et al., 2019; Woodcock & Jones, 2020; Yakut, 2021). To test the instrument, factor analysis was used; the researchers found that three moderately correlated factors (student engagement,

instructional strategies, and classroom management) were consistently found. Tschannen-Moran and Hoy (2001) reported when they completed the Gibson and Dembo test and the Rand Survey that data was previously correlated to positive instruments with a validity result of .18 and .53 and a $p < 0.01$. The analysis indicated that the instrument was valid. Reliability statistics reported a .94 Cronbach's Alpha coefficient.

The research study used the long survey which includes 24 questions. To determine the teacher efficacy regarding student engagement, questions 1, 2, 4, 6, 9, 12, 14, and 22 will be grouped together. The subscale of instructional practice is computed by grouping questions 7, 10, 11, 17, 18, 20, 23, and 24 together. The final subscale of classroom management is determined by grouping questions 3, 5, 8, 13, 15, 16, 19, and 21 together. The survey used a nine-point Likert scale that ranged from "None at all" to "A great deal." Responses were as follows: A Great Deal = 9, Quite a Bit = 7, Some Degree = 5, Very Little = 3, None at All = 1. To score the instrument, the researcher must add the participants' scores together. The combined possible score on the TSES ranges from 24 to 216. A score of 24 is the lowest possible score meaning that participants do not believe in their ability, lack access or ability to use resources, or opportunities to perform the surveyed tasks. Participants who scored a 216 on the scale demonstrated higher efficacy in their belief in their ability, access and use of resources, and opportunities to perform surveyed tasks (Tschannen-Moran & Hoy, 2001).

The instrument was administered electronically through the use of Survey Monkey. The questionnaire explained that the survey was designed to help the researcher better understand the kinds of things that create challenges for teachers and that their responses would be kept confidential. Teachers were asked to indicate their opinion about each of the questions provided by marking any one of the nine responses in the columns below the question, ranging from (1)

“None at All” to (9) “A Great Deal.” Before the survey, it states, “Please respond to each of the questions by considering your *current* ability, resources, and opportunity to do each of the following in your present position” (Tschannen-Moran & Hoy, 2001, p. 1). The instrument takes ten minutes to complete. The researcher assessed the survey by adding up the scores and subscales. Permission was granted by Tschannen-Moran and Hoy to use the instrument in this study (see Appendix C).

The Scale of Teachers’ Attitudes towards Inclusive Classrooms (STATIC)

The Scale of Teachers’ Attitudes towards Inclusive classrooms was developed as the push for inclusion became more pressing in regular education classrooms (Cochran, 1997). Cochran recognized that if inclusive education was going to continue to be a pressing issue, teachers’ attitudes needed to be examined to understand the needs of educators. Cochran recognized that a sound instrument needed to be created to help in the understanding of: (a) examine teachers’ attitudes towards students with special needs, (b) identify relationships between teachers’ attitudes toward students with special needs and disabled people in general, (c) predicting students’ success based off of teachers’ attitudes, (d) desensitizing regular education teachers attitudes toward students with special needs, (e) promoting positive attitudes through trainings, and (f) screening pre-service teachers for the presence of positive attitudes toward students with special needs. This instrument aims to measure teachers’ attitudes about students with special needs in the regular education classroom.

The instrument has been used in studies to examine teacher’s beliefs about inclusive education (Hernandez et al., 2016; Ross-Hill, 2009; Song, 2016). Cochran conducted a conforming factor analysis of instrument and found four factors for the scale which center around the advantages and disadvantages of inclusive education, professional issues,

philosophical issues, and logistical concerns of inclusive education. Since the original survey by Cochran did not include content validity, a panel of 20 expert teachers evaluated the instrument and found the total scale had a high internal consistency of an alpha level of .89 (Nishimura & Busse, 2016). Cochran (1997) study on the reliability of the STATIC consistently indicated a Cronbach alpha reliability coefficient of .89.

The instrument includes 20 questions and uses a 5-point Likert scale ranging from 1 = “Strongly Agree” to 5 = “Strongly Disagree.” The first part of the survey collects demographic information including participants ethnicity, education, location, class size, types of special needs in their classroom, whether they have special needs students living in their homes, and their type of teaching experience. Cochran (1997) indicates that these questions may be altered to fit the researcher’s needs. A low score on the instrument indicates a negative attitude toward inclusive education and a high score indicates a positive attitude toward inclusive education. If looking at the survey through individual factors, Cochran indicates that the items should be grouped. To determine attitudes towards the advantages and disadvantages toward inclusive education questions 7, 11, 12, 13, 14, 15, and 20 will be grouped together. To determine professional issues regarding inclusive education, items 1, 2, 3, 4, 9 will be grouped together. To compute philosophical issues regarding inclusive education items 5, 6, 10, and 16 will be grouped together. The final factor identifying the logistical concerns of inclusive education groups items 8, 17, 18, and 19 together. Cochran states that items 3, 4, 7, 9, 13, and 15 must be reverse coded when analyzing data so that 0=5, 1=4, 2=3, 3=2, 4=1, 5=0. To get an index of each participant’s attitude toward inclusion, the sum score of the twenty items can be calculated. When added together, 100 is the highest possible score and 20 is the lowest score. The sum of

the items indicate that the higher scores are indicative of more positive attitudes and lower scores are indicative of more negative attitudes.

The instrument was administered electronically through the use of Survey Monkey. Teachers were asked to indicate their opinion about each of the questions provided by marking any one of the five responses in the columns below the question, ranging from 1 = “Strongly Agree” to 5 = “Strongly Disagree.” The survey will take participants ten minutes to complete. The researcher will score the survey to determine the participants’ attitudes toward inclusion, the researcher added the participants’ answers to the 20 questions. The sum score was then used to identify positive and negative attitudes towards inclusion (Cochran, 1997). See Appendix B for instructions on how to score the *STATIC*. Thirty days were given for the participants to complete the survey. Cochran granted permission to use the instrument in this study (see Appendix D).

Procedures

Before beginning the study, approval will be given by the IRB board to ensure that the study meets the requirements of an ethical research study (Gall et al., 2007). The research was approved from Liberty University in accordance with the American Educational Research Association (see Appendix E). A meeting with the assistant superintendent was established to grant permission to use the teachers in the district as participants in the study (see Appendix F). Next, I met with the school principals to review the research plan, seek support, receive permission, and acquire eligible participants. Using the provided list of eligible teachers, an email was sent to them introducing the study, detailing its components, and asking for voluntary participation. Teachers who have at least half a year of teaching experience in an inclusive classroom were invited to participate in a survey.

The participants were provided with an email with a link to a video explaining the process and the terminology (self-efficacy, classroom management, and inclusive setting) to ensure they understood the survey's focus. They were also reminded through the information provided on consent form (see Appendix G) that preceded the online survey that the survey was being given anonymously to make them comfortable giving honest responses. The participants asked to participate in the study were provided with a consent form at the beginning of the survey that asked for acknowledgment that they were voluntarily participating in the study, that they understood the purpose of the study and recognized that the study was to be done anonymously, keeping answers confidential, and acknowledging that they could, at any time, withdrawal from the study without consequence. Through these communications, the respondents were made aware of the purpose of the study: to determine the relationships between self-efficacy, classroom management, and inclusive settings. Of the 71 eligible participants, 67 of them were used in the study. Four surveys were not entirely completed; therefore, the surveys were not used in the study.

An email was sent to all respondents (see Appendix H), with a video link for instructions and a link to the survey. They were asked to complete one survey which contained two instruments administered through Survey Monkey. The questionnaire explained that the survey was designed to help the researcher better understand the attitudes teachers had about students with special needs in the regular education classroom and that their responses would be kept confidential. The participants were also reminded that there were not any correct or incorrect answers. Both surveys used a Likert scale to collect data.

Participants were asked to complete the survey in 30 days. They were sent an email reminder on day 17. Respondents were asked to answer each question to the best of their ability

and were reminded in the follow up email that the survey would be kept anonymous and confidential. After the 30 days, the survey was closed, and data analysis began. The information was examined using a correlation study to determine relationships between the variables. The data will be stored on a password protected computer. Any printed information will be stored in a locked filing cabinet and will not have any names associated with the data as participants are identified by number only. The data will be retained for five years after the completion of this research study.

Data Analysis

All three hypotheses will be analyzed by using three Pearson product-moment correlations. Gall et al. (2007) explained that correlational research refers to studies whose purpose is to identify relationships between variables through correlational statistics. Gall et al. explained that Pearson product-moment correlation requires that both variables be measured on a continuous scale. The instruments used in the study provided data measured on a continuous scale; each participant had a pair of continuous values to analyze for each null hypothesis making a Pearson product-moment correlation the appropriate technique to use. The Pearson product-moment correlation was conducted for each of the following hypotheses to produce scores for each pair of variables: self-efficacy regarding student engagement (independent variable) and attitude toward inclusive education (dependent variable); self-efficacy regarding instructional practices (independent variable), and attitude toward inclusive education (dependent variable); and self-efficacy regarding classroom management (independent variable) and attitude toward inclusive education (dependent variable).

Warner (2021) explained that Pearson's r provides information about linear relationships. The collected data will come from a random convenience sample. The correlation coefficient determines the direction and strength of the correlation. Since the research seeks to examine the relationships between self-efficacy, student engagement, instructional practices, classroom management, and teachers' attitudes toward an inclusive classroom, it is best to use a scatterplot to represent the correlation between the variables (Gall et al., 2007). The researcher can visually examine the scatterplot to determine if a linear relationship exists between variables indicated by a straight line. The scatterplot will be used to investigate extreme outliers. Outliers will be identified and reported to ensure that p-hacking does not occur (Warner, 2021). For each hypothesis, scatterplots were used to assess the assumption of bivariate outliers between each pair of variables. Warner explained that values of r can be inflated or deflated by outliers making it necessary to detect outliers. The researcher will visually inspect the scatterplots to see if there are any extreme outliers.

Warner (2021) explains that the next step for assumption of linearity testing is ensuring that X and Y are independent which can be determined by visual inspection of the scatterplots. Based off the scatterplot, the relationship can be examined to determine if there is a positive correlation ($r = 0$ and $+1.00$), negative correlation ($r = 0$ and -1.00), or an absence of correlation ($r = 0.0$) (Gall et al., 2007). To address the assumption of bivariate normal distribution, the researcher will visually inspect the shape of the scatter plot. If the shape is curved, a visual examination indicates that a linear relationship does not exist (Warner, 2021).

In order to complete a correlation study at the medium effect size, the correlation coefficient (r) at the statistical power of .7 with an alpha of .05 needs to have 66 participants (N) (Gall et al., 2007). A low p value ($p < .01$) will reject the null hypothesis, and a high p value ($p >$

.05) will not reject the hypothesis (Warner, 2021). Since three Pearson product-moment correlations will be conducted, a Bonferroni correction is needed to guard against type I error.

The alpha level is calculated to be: $0.05/3=.016$, rounded to .02 (Warner, 2013).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative correlation study is to determine if there is a relationship between in-service general secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes toward the inclusive setting. The sample population for this study was general secondary education teachers in a single district. A Pearson product-moment correlation was used to examine the relationship between the study variables. What follows is a reiteration of the research questions and null hypotheses. This is then followed by descriptive statistics of the variables, which include frequencies and percentages for nominal data and means and standard deviations for the data. The results of the assumption testing as well as the statistical analysis are also reported.

Research Questions

The following three research questions were addressed in this study:

RQ1: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *student engagement* and their attitudes toward inclusive classroom settings?

RQ2: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes toward inclusive classroom settings?

RQ3: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *classroom management* and their attitudes toward inclusive classroom settings?

Null Hypotheses

The corresponding null hypotheses tested in this study were:

H₀₁: There is no significant relationship between secondary teachers' self-efficacy in regard to *student engagement* and their attitudes about the inclusive setting as measured by The

Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

H₀₂: There is no significant relationship between secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes about the inclusive setting as measured by The Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

H₀₃: There is no significant relationship between secondary teachers' self-efficacy in regard to *classroom management* and their attitudes about the inclusive setting as measured by The Teacher's Sense of Efficacy Scale and The Scale of Teachers' Attitudes towards Inclusive Classrooms.

Data Screening

The survey for the study was exported from Excel directly into an SPSS package compatible with IBM SPSS (Version 28). The data were screened to see if there were any errors, and no errors were found. Furthermore, variable names were created in SPSS to correspond with the study variables. After the data screening process, assumption testing was completed, and Pearson product-moment correlations were performed.

Descriptive Statistics

There were $N=67$ participants in this study in which 100 (100%) of them were secondary general education teachers (Table 1).

Table 1*Secondary Teachers*

	Frequency	Percent
Grades 6-8	34	51.0
Grades 9-12	33	49.0
Total	67	100.0

Regarding teaching experience, most had more than 15 years of teaching experience, which accounted for 42% of the population. This was followed by 6-10 years of experience, accounting for 28% of the population; 2-5 years of experience, accounting for 15% of the population; 11-15 years of experience, accounting for 12% of the population; and .5-1 years of experience, accounting for 3% of the population. This data is provided in Table 2.

Table 2*Years of Experience*

	Frequency	Percent
.5-1.0	2	3.0
2-5	10	15.0
6-10	19	28.0
11-15	8	12.0
Over 15	28	42.0
Total	67	100.0

Regarding degrees, most of the participants had a Master's Degree, which accounted for 78% of participants. Followed by Bachelor's Degree, accounting for 21%; a Doctor Education Degree accounting for 1% of the population. Table 3 provides this information.

Table 3*Level of Degree*

	Frequency	Percent
Bachelor's	14	21.0
Master's	52	78.0
Doctorate of Ed.	1	1.0
Total	67	100.0

The number of students in the teachers' classes varied in size. Most classes had 21-30 students in their classes, which accounted for 64% of the participants. Followed by 11-20 students, accounting for 28%; 1-10 students, accounting for 1% of the population; 31-40 students, accounting for 4% of the population; and more than 40 students accounting for 1% of the population. This information is provided in Table 4.

Table 4*Class Size Per Student*

	Frequency	Percent
1-10 students	1	1.5
11-20 students	19	28.0
21-30 students	43	64.0
31-40 students	3	5.0
Over 40 students	1	1.5
Total	67	100.0

The participants indicated having special education students in their classrooms. Most classes had more than five students with special needs in them, accounting for 72% of the participants. Twenty-one percent of the participants stated that they have four to five students with special needs in their classrooms, and 7% of the participants have two to three students with special needs in their classrooms. This data is displayed in Table 5.

Table 5*Number of Students with Special Needs in Each Teacher's Classroom*

	Frequency	Percent
0	0	0.0
1	0	0.0
2-3	5	7.0
4-5	14	21.0
Over 5	48	72.0
Total	67	100.0

Regarding types of disabilities in the classrooms, 39% of the participants stated that they have students with learning disabilities. Seven percent of participants stated that they have students with behavioral differences, and 54% of participants have students with a combination of needs. See Table 6 for this information.

Table 6*Needs of Students in Classrooms*

	Frequency	Percent
Learning	26	39.0
Behavioral	5	7.0
Health	0	0.0
None of these	0	0.0
All of these	36	54.0
Total	67	100.0

The dependent variable in this study is the teacher's attitude toward the inclusive classroom. The information in Tables 1-6 indicates information relevant to the participants' current teaching position shaping their attitudes toward inclusive classrooms. The independent variables in this study are student engagement, instructional practices, and classroom management. The STATIC scale measured teachers' attitudes toward the inclusive classroom. Participants were given 20 questions to answer. Participants answered a Likert scale ranging

from 0 (Strongly Disagree) to 5 (Strongly Agree). Lower scores on this scale indicate a negative attitude toward inclusion, and higher scores indicate a positive attitude toward inclusion. The items appear in Table 7. Six items were reverse-coded. Cronbach's alpha measured the reliability of this scale. An alpha of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater is a very good level (Taber, 2018). Reliability was deemed adequate with a Cronbach's alpha of .857.

Student engagement was calculated by the mean responses of eight items measured on a nine-point Likert scale ranging from 1 (Nothing) to 9 (A Great Deal). A computed Cronbach's alpha of .802 indicates acceptable reliability for this scale.

Instructional practices were calculated by the mean responses of eight items measured on a nine-point Likert scale ranging from 1 (Nothing) to 9 (A Great Deal). A computed Cronbach's alpha of .794 suggests acceptable reliability for this scale.

Classroom management was calculated by the mean responses of eight items measured on a nine-point Likert scale ranging from 1 (Nothing) to 9 (A Great Deal). A computed Cronbach's alpha of .810 indicates acceptable reliability for this scale.

Descriptive statistics are provided in Table 7. Attitude ranged from 1.85 to 4.70 ($M = 3.55$, $SD = .48768$); Student Engagement ranged from 5.25 to 9.0 ($M = 6.6287$, $SD = .85584$); Instructional Practices ranged from 5.25 to 9.00 ($M = 7.1455$, $SD = .82818$); and Classroom Management ranged from 5.63 to 8.88 ($M = 7.2295$, $SD = .75585$).

Table 7*Descriptive Statistics*

	<i>N</i>	Minimum	Maximum	<i>M</i>	<i>SD</i>
Attitude	67	1.85	4.70	3.5478	.48768
Student_Engagement	67	5.25	9.00	6.6287	.85584
Instructional_Practices	67	5.25	9.00	7.1455	.82818
Classroom_Management	67	5.63	8.88	7.2295	.75585
Valid N (listwise)	67				

Research Question One

In order to address the research questions and test the null hypotheses, Pearson product-moment correlations were computed. The results of the statistical test for each null hypothesis are provided. Prior to the analysis, assumption testing was performed.

Assumption Testing

The researcher sorted the data and scanned for inconsistencies in each variable. No data errors or inconsistencies were identified. A scatter plot was used to detect bivariate outliers between the independent and dependent variables, and no bivariate outliers were identified. See Figure 1 for scatter plot.

Assumption of Linearity

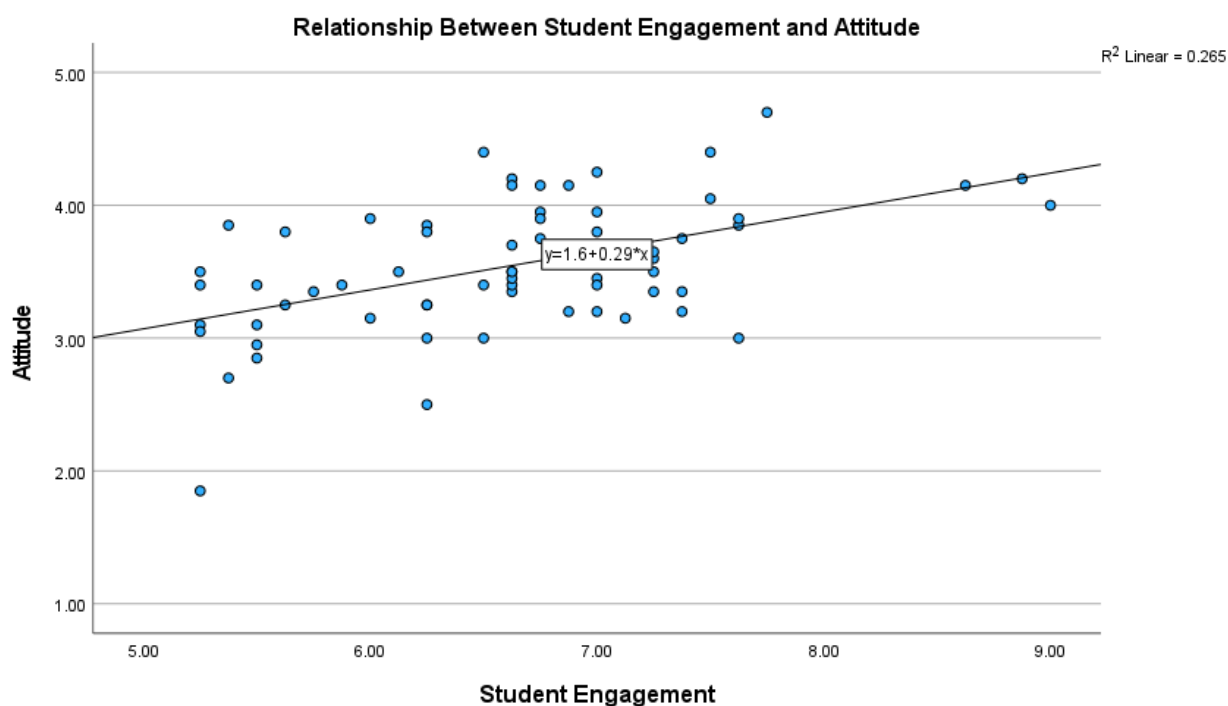
The Pearson product-moment correlation requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The plot revealed a positive linear relationship ($r = 0$ and $+ 1.00$). As teachers' efficacy regarding student engagement increases, there is also a positive increase in their attitude toward inclusion. The assumption of linearity was met. See Figure 1 for scatter plot.

Assumption of Bivariate Normal Distribution

The Pearson product-moment correlation requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was visually examined for shape using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 1 for scatter plot.

Figure 1

Scatter Plot



Results

A Pearson product-moment correlation was conducted to see if there was a relationship between general secondary education teachers' self-efficacy regarding student engagement and their attitudes toward the inclusive classroom. The independent variable was student engagement, and the dependent variable was teachers' attitudes. The researcher rejected the null hypothesis at the 95% confidence level where $r(65) = .51$, $p < .001$. The effect size was very

large, and the relationship was positive. There was a statistical relationship between general secondary teachers' self-efficacy regarding student engagement and their attitudes toward the inclusive classroom. See Table 8 for Pearson product-moment correlation results.

Table 8

Correlations

		Attitude	Student Engagement
Attitude	Pearson	1	.514**
	Correlation		
	Sig. (2-tailed)		<.001
	<i>N</i>	67	67
Student Engagement	Pearson	.514**	1
	Correlation		
	Sig. (2-tailed)	<.001	
	<i>N</i>	67	67

** . Correlation is significant at the 0.01 level (2-tailed).

Research Question Two

Assumption Testing

The researcher sorted the data and scanned for inconsistencies in each variable. No data errors or inconsistencies were identified. A scatter plot was used to detect bivariate outliers between the independent and dependent variables, and no bivariate outliers were identified. See Figure 2 for scatter plot.

Assumption of Linearity

The Pearson product-moment correlation requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The plot revealed a positive linear relationship ($r = 0$ and $+ 1.00$). As teachers' efficacy regarding student engagement increases, there is also a

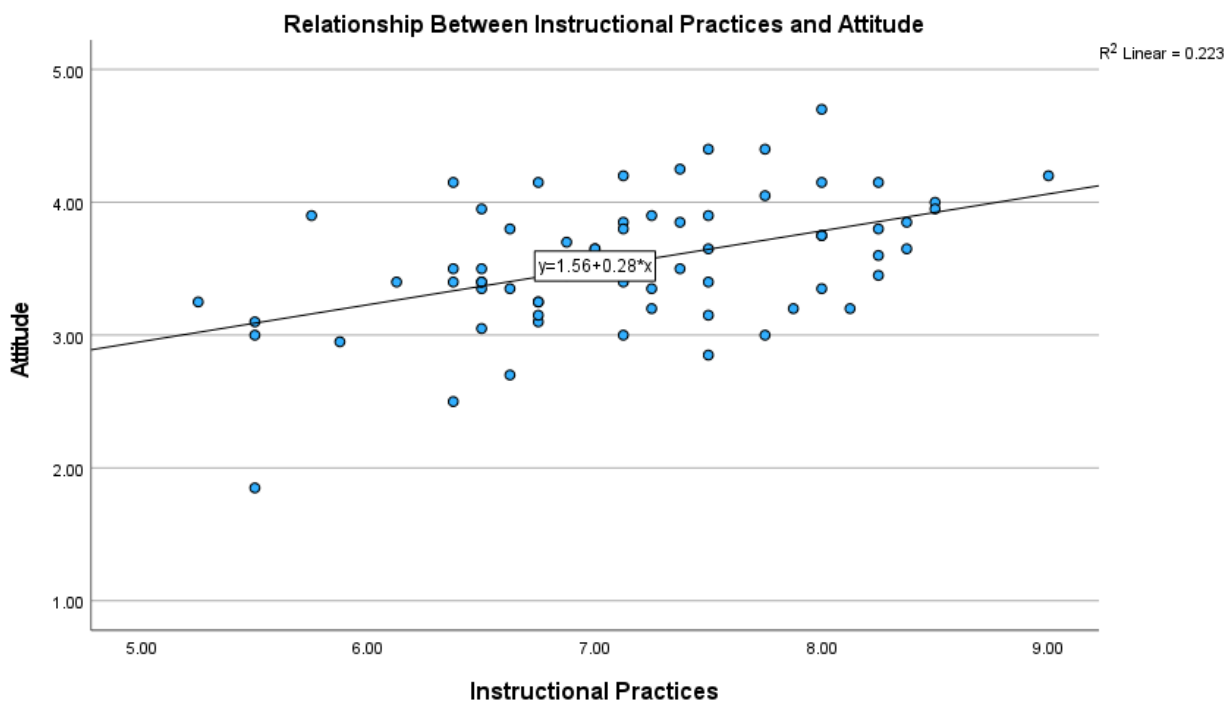
positive increase in their attitude toward inclusion. The assumption of linearity was met. See Figure 2 for scatter plot.

Assumption of Bivariate Normal Distribution

The Pearson product-moment correlation requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was visually examined for shape using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 2 for scatter plot.

Figure 2

Scatter Plot



Results

A Pearson product-moment correlation was conducted to see if there was a relationship between general secondary education teachers' self-efficacy regarding instructional practices and their attitudes toward the inclusive classroom. The independent variable was instructional

practices, and the dependent variable was teachers' attitudes. The researcher rejected the null hypothesis at the 95% confidence level where $r(65) = .47, p < .001$. The effect size was very large, and the relationship was positive. There was a statistical relationship between general secondary teachers' self-efficacy regarding instructional practices and their attitudes toward the inclusive classroom. See Table 9 for Pearson product-moment correlation results.

Table 9

Correlations

		Attitude	Instructional Practices
Attitude	Pearson	1	.472**
	Correlation		
	n		
	Sig. (2-tailed)		<.001
	<i>N</i>	67	67
Instructional Practices	Pearson	.472**	1
	Correlation		
	n		
	Sig. (2-tailed)	<.001	
	<i>N</i>	67	67

** . Correlation is significant at the 0.01 level (2-tailed).

Research Question Three

Assumption Testing

The researcher sorted the data and scanned for inconsistencies in each variable. No data errors or inconsistencies were identified. A scatter plot was used to detect bivariate outliers between the independent and dependent variables, and no bivariate outliers were identified. See Figure 3 for scatter plot.

Assumption of Linearity

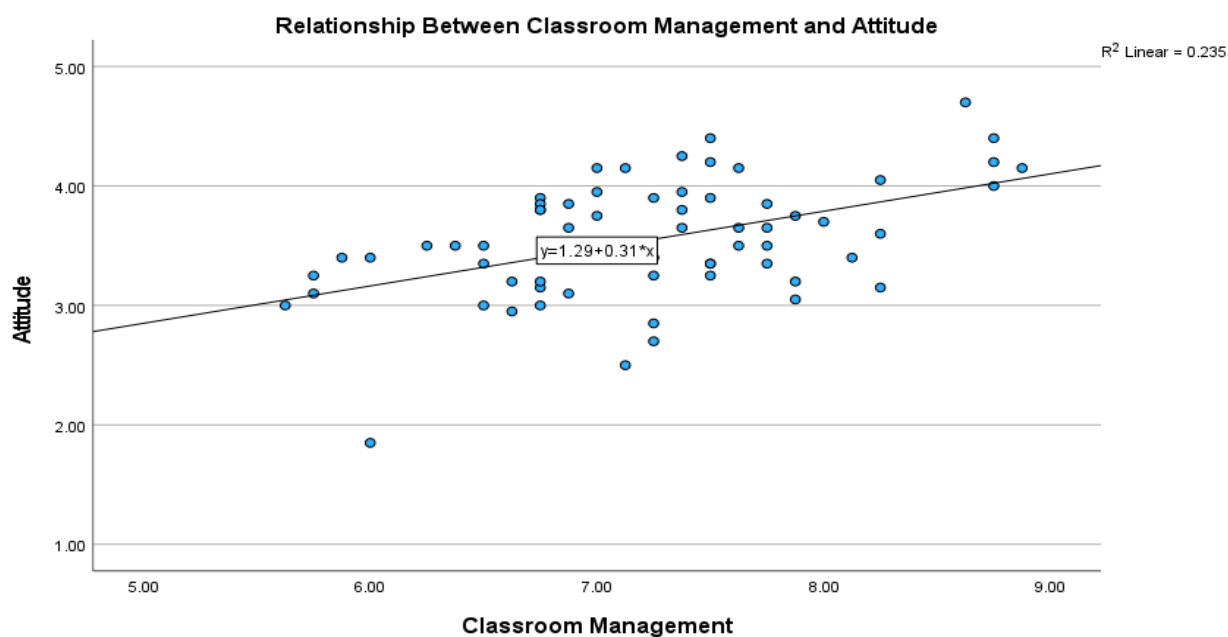
The Pearson product-moment correlation requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The plot revealed a positive linear relationship ($r = 0$ and $+ 1.00$). As teachers' efficacy regarding student engagement increases, there is also a positive increase in their attitude toward inclusion. The assumption of linearity was met. See Figure 3 for scatter plot.

Assumption of Bivariate Normal Distribution

The Pearson product-moment correlation requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was visually examined for shape using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 3 for scatter plot.

Figure 3

Scatter Plot



Results

A Pearson product-moment correlation was conducted to see if there was a relationship between general secondary education teachers' self-efficacy regarding classroom management and their attitudes toward the inclusive classroom. The independent variable was classroom management, and the dependent variable was teachers' attitudes. The researcher rejected the null hypothesis at the 95% confidence level where $r(65) = .49, p \leq .001$. The effect size was very large, and the relationship was positive. There was a statistical relationship between general secondary teachers' self-efficacy regarding instructional practices and their attitudes toward the inclusive classroom. See Table 10 for Pearson product-moment correlation results.

Table 10

Correlations

		Attitude	Classroom Management
Attitude	Pearson Correlation	1	.485**
	Sig. (2-tailed)		<.001
	<i>N</i>	67	67
Classroom Management	Pearson Correlation	.485**	1
	Sig. (2-tailed)	<.001	
	<i>N</i>	67	67

** . Correlation is significant at the 0.01 level (2-tailed).

CHAPTER FIVE: CONCLUSIONS

Overview

This research study empirically evaluated if there was a relationship between secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes toward the inclusive setting. The research population study included general secondary teachers from a single district. The relationship between the study variables was examined through a correlation design. Data collection was performed through an online survey containing two instruments, which allowed for data to be collected efficiently through one collection point. The results revealed a significant positive correlation between student engagement and attitudes toward inclusion, instructional practices and attitudes toward inclusion, and classroom management and attitudes toward inclusion. The research is significant as it adds to the existing literature on the relationship between teachers' self-efficacy and their attitudes toward inclusion by focusing on a population of American secondary teachers. Similar to other research, the study was limited by sample size and data collection method. Chapter Five presents an overview of the study, a discussion of the findings and results, implications, limitations, and suggestions for further research.

Discussion

Relationships exist between general secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes about the inclusive setting. Teachers with higher self-efficacy perceive themselves as having a better grasp of engaging students. Teachers who have positive attitudes and know students' abilities can create environments that maximize learning. Farmer et al. (2019) explain that when teachers are aware of their learners' needs and use this information to establish learning norms, they create an

ecology that supports and engages learners with diverse needs.

In order to engage students, efficacious teachers recognize the need to establish a classroom view. Woodcock and Nicoll (2022) discuss how teachers with a positive view on education for all students look beyond performance and try to create an outlook that considers the classroom culture, reflective practices, and an awareness of students' needs. Teachers who recognize their contribution to student engagement and those who have positive attitudes are more confident in their ability to work with diverse learners. Teachers believing in their abilities to reach all learners are more willing to work with unmotivated or challenging students because they believe they can positively impact their learning (Lauermann & Berger, 2021).

Teachers with experience teaching in an inclusive setting realize their capabilities to organize and use strategies to meet all students' needs. Through experiences and interactions, teachers gain confidence in their abilities to successfully teach all students, which promotes positive attitudes regarding inclusive education. Desombre et al. (2019) explain that teachers' attitudes are impacted by the extent to which instructional practices need to be modified for learners. Teachers who recognize that even small changes to instruction can have huge impacts on student learning are positive about modifying instruction to meet students' needs (Leifler, 2020). The more confident teachers are in their ability to modify their instruction, evaluate personal pedagogical beliefs, and implement specific learning strategies, the more positive their attitude is toward inclusion. Teachers who can identify and build on the strengths and weaknesses of students' existing academic levels can employ instructional strategies that promote diverse learning and model acceptance of all students and their needs.

Teachers who believe they can handle a classroom of students with various needs have higher self-efficacy regarding classroom management. Teachers who perceive themselves as

capable of handling diverse needs are more willing to explore techniques and implement strategies to benefit all students (Conroy et al., 2019). Teachers' attitudes about the students in their classrooms and their ability to work with them impact their interactions, relationships, and management (Garrote et al., 2020). Teachers who exhibit high self-efficacy believe that their behavior and attitude impact the classroom environment. They are willing to establish classroom dynamics and routines that positively impact student interactions and promote positive social interactions to enhance learning opportunities for all students.

This quantitative correlation study proposed to investigate the relationship between general secondary teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes toward the inclusive setting. Through the completion of the study, the researcher desires to add to the literature on the impact of American general secondary teachers' self-efficacy and their attitudes toward the inclusive setting. In order to achieve this objective, the researcher used the following research questions and rejected the null hypotheses. The researcher performed assumption testing before the analysis and included the assumption of linearity, inspection of bivariate normality, and outlier detection.

Research Question One

RQ1: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *student engagement* and their attitudes toward inclusive classroom settings?

The research study results showed that after conducting a Pearson product-moment correlation, there was a large, positive correlation between teachers' self-efficacy regarding student engagement and their attitudes toward the inclusive classroom; hence the null hypothesis was rejected ($r(65) = .51.$, $p < .001$). Increasing levels of personal beliefs in teachers' abilities to engage students in learning activities corresponded to increasing attitudes toward the inclusive

classroom. Thus, Pearson's correlation was significant, and the corresponding null hypothesis was rejected, demonstrating significant relationships between the study variables ($p < .001$).

The results are consistent with previous literature that teachers' self-efficacy regarding student engagement impacts their attitudes about the inclusive setting (Woodcock & Jones, 2020). Teachers who recognize their impact on student learning and motivation take a sense of responsibility for students' engagement. Matteucci et al. (2017) explain that teachers' implicit beliefs about intelligence are connected to the effort put into promoting a classroom environment that deems student needs as important and places emphasis on the learning that occurs. The study found that teachers with experience working with students with special needs are more confident in their ability to motivate all students while creating an environment that promotes student growth through participation. The findings support the idea that teachers' attitudes are influenced by their beliefs in how capable they are of engaging all learners.

Secondary teachers' attitudes about inclusion and the ability to meet all learners' needs are shaped by life experiences, knowledge, and interactions with people with disabilities. Self-efficacy regarding student engagement and attitudes about the inclusive environment develop through continued experiences working with diverse learners and grow through continued feedback and support of classroom culture (Mireles-Rios et al., 2019). Bandura (1999) discussed that perceived self-efficacy plays an essential role in the social cognitive theory because it influences personal actions and impacts cognitive, behavioral, and environmental determinates. The self-efficacy theory and social cognitive theory support the relationship between the study variables by laying a framework for teachers' beliefs to impact the engagement of learners (Granziera & Perera, 2019).

Research Question Two

RQ2: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *instructional practices* and their attitudes toward inclusive classroom settings?

The study results showed after conducting a Pearson product-moment correlation that there was a large, positive correlation between teachers' self-efficacy regarding instructional practices and their attitudes toward the inclusive classroom ($r(65) = .47, p < .001$), hence rejecting the null hypothesis. The results suggest that increasing levels of belief about teachers' ability to use instructional practices effectively corresponds to increasing attitudes about the inclusive setting. The study findings were consistent with peer-reviewed literature indicating that teacher efficacy impacts one's ability to trust that they are capable of adjusting instruction to engage all students while promoting desired learning outcomes through the appropriate implementation of strategies (Kilinç et al., 2021).

Teachers' behaviors and beliefs about students' abilities and their willingness to implement diverse instructional practices determine if inclusion is successful (Wilson et al., 2022). Secondary teachers with experience teaching in an inclusive environment feel more comfortable adjusting their instructional methods to reach all students. The self-efficacy theory proposes that teachers with higher perceived capabilities are more willing to invest effort and time in their instructional practices (Bandura, 1986; Woodcock & Jones, 2020). Woodcock and Hitches (2017) discuss the need for teachers to employ differentiated instruction to shake up what goes on in the classroom, giving students multiple options for taking in information, processing it, and demonstrating what they have learned. This study found that teachers who feel empowered and capable of adjusting instructional practices to fit curricular needs are willing to adjust their strategies to cater to students' needs in hopes of facilitating learning for all students.

The results were within the scope of study expectations that there was a correlation between instructional practice efficacy and teachers' attitudes about inclusive practices.

Teachers with higher efficacy take on more significant challenges, give more effort, are flexible in their instructional approaches, are persistent in dealing with adversity, and make effective judgments about their capabilities of performing specific teaching tasks to enhance student achievement (Kiel et al., 2020). American secondary teachers' belief that they can effectively teach in an inclusive classroom is impacted by the support they receive from administration and colleagues and the number of students in each class. When teachers feel that their pedagogical choices are limited due to restricted autonomy or class content, they are less likely to exhibit flexible teaching strategies and use fewer innovative techniques to meet all students' learning needs (Hauerwas & Mahon, 2018).

Research Question Three

RQ3: Is there a relationship between in-service secondary teachers' self-efficacy in regard to *classroom management* and their attitudes toward inclusive classroom settings?

In the third null hypothesis, after conducting a Pearson product-moment correlation, research findings revealed that there was a large, positive correlation between secondary teachers' self-efficacy regarding classroom management and their attitude toward the inclusive setting ($r(65) = .49, p < .001$), hence rejecting the null hypothesis. The study findings revealed that as self-efficacy regarding classroom management increased, attitudes about the inclusive setting did as well. The study is consistent with previous literature in that teachers' beliefs concerning their classroom management strategies are significant in monitoring classroom activities while looking over student learning, social interactions, behavior, and actions (Alasmari & Althaqafi, 2021). Teachers that feel confident in their abilities to organize an

effective classroom design, establish clear expectations and routines, form positive relationships with students, and provide engaging instruction have higher efficacy and positive attitudes about inclusion.

Peer-reviewed literature highlighted the existing relationship between self-efficacy regarding classroom management and inclusive practices. When teachers have experience working with students of diverse needs, they know the need to orchestrate safe learning environments where students of all ability levels feel accepted and participate in the learning process (Kuronja et al., 2019). Secondary teachers with higher efficacy are more apt to create a learning environment that evokes a safe, nurturing, engaging atmosphere. Teachers with positive attitudes toward inclusion make a more significant effort to establish learning norms that reflect an atmosphere suitable for including diverse learners and those with special educational needs (Garrote et al., 2020). The self-determination theory explains that to build efficacy, teachers need to have a sense of ownership, experience competence, and exhibit a sense of belonging (Ryan & Deci, 2020). Teachers with a higher sense of classroom management efficacy can establish environments that allow them to create expectations and develop relationships. The literature shows that teachers who have positive, supportive interactions with students can effectively handle classroom disruptions, have a more significant impact on the whole child, and are more satisfied with their jobs (Hopman et al., 2018).

Implications

This quantitative correlation study was essential to scientific research as it brings attention to the need to recognize and develop teachers' efficacy regarding student engagement, instructional practices, classroom management, and attitudes toward the inclusive setting. The study is significant in that it reduces the gap in the literature concerning what impacts American

general secondary education teachers' self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes and beliefs, as well as what can be done to impact efficacy and classroom practices positively. The information provided can be used to increase efficacy by providing teachers with opportunities to develop efficacy through a selection of activities that meet their personal needs.

Smith et al. (2020) explains that when teachers are given options as to what areas of development to focus on, they are more motivated to complete tasks. Teachers must have the training to gain knowledge and skills to build confidence and develop positive attitudes to manage, track, and guide students' learning in an inclusive setting (Deepika, 2017). American secondary teachers know the need to provide instruction to all students; however, they need training resources and support to increase their efficacy. Professional development needs to provide autonomy to teachers to accumulate experiences, complete activities with a purpose, and develop instructional resources that apply to their content areas (Glackin, 2019). Despite the experience in-service teachers have, professional development allows them to continue improving their instructional techniques leading to better student engagement, classroom management, and positive attitudes toward the inclusive setting.

Limitations

There were limitations to this study. One limitation is the participants' sample size (Chao et al., 2017; Woodcock & Jones, 2020). While a correlation study only requires 66 participants, the size of the group only allowed for a small population of teachers to be evaluated. To better understand American general secondary teachers' attitudes about self-efficacy regarding student engagement, instructional practices, classroom management, and their attitudes toward the inclusive setting, the study should include various demographics and a more extensive study

group. Another limitation is the understanding and interpretations of inclusive practices across regions (Hauerwas & Mahon, 2018; Woodcock & Jones, 2020). Demographics, culture, and personal beliefs influence how teachers define inclusion, resulting in varying interpretations. Since the study was done in one district, the results are associated with a single area not allowing for a diverse study population. Furthermore, the study was limited because the data was collected based on teacher perceptions of survey questions and personal self-efficacy. The studies should be expanded to study classroom observations and personal interviews to understand teacher ratings (Lazarides et al., 2020; Love et al., 2019). By using various methods to collect data, bias is eliminated, and self-reporting is not the sole method for interpretation.

Recommendations for Future Research

Further study may involve doing a longitudinal design and looking at the impact of continuous training on secondary teachers' self-efficacy and attitudes. After allowing teachers to evaluate the strength and weaknesses of their self-efficacy regarding student engagement, instructional practices, and classroom management and their attitudes about the inclusive setting, researchers could provide teachers with opportunities to participate in professional development sessions that cater to their needs and then re-evaluate their efficacy and attitudes to determine if a change occurred (Salvolainen et al., 2012; Schipper et al., 2018; Woodcock & Jones, 2020). By providing training focusing on areas of need, teachers will be given opportunities to gain strategies and skills to help them recognize their ability to instruct diverse learners. Another area that deserves further study is identifying effective ways to assist teachers in the formation of positive attitudes toward inclusion (Ismailos et al., 2022). Researchers could collect data of inclusion attitudes and development professional development sessions around identified needs.

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Appendix A

TEACHERS' SENSE OF EFFICACY SCALE AND SCORING GUIDELINES

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 Influence	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)	(6)	(7)	(8)	(9)
2.	How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14.	How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17.	How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19.	How well can you keep a few problem students from ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21.	How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24.	How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Directions for Scoring the Teachers' Sense of Efficacy Scale¹

Developers: Megan Tschannen-Moran, College of William and Mary

!!!!!!!!!!!!!!!!!!!!!!!!!!!!Anita Woolfolk Hoy, the Ohio State University.

!

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see:

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Factor Analysis

It is important to conduct a factor analysis to determine how your participants respond to the questions. We have consistently found three moderately correlated factors: *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*, but at times the make up of the scales varies slightly. With preservice teachers we recommend that the full 24-item scale (or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Long Form

Efficacy in Student Engagement: Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies: Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management: Items 3, 5, 8, 13, 15, 16, 19, 21

Short Form

Efficacy in Student Engagement: Items 2, 3, 4, 11
Efficacy in Instructional Strategies: Items 5, 9, 10, 12
Efficacy in Classroom Management: Items 1, 6, 7, 8

Reliabilities

In Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805, the following were found:

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
OSTES	7.1	.94	.94	7.1	.98	.90
<i>Engagement</i>	7.3	1.1	.87	7.2	1.2	.81
<i>Instruction</i>	7.3	1.1	.91	7.3	1.2	.86
<i>Management</i>	6.7	1.1	.90	6.7	1.2	.86

¹ Because this instrument was developed at the Ohio State University, it is sometimes referred to as the *Ohio State Teacher Efficacy Scale*. We prefer the name, *Teachers' Sense of Efficacy Scale*.

Appendix B

SCALE OF TEACHERS' ATTITUDES TOWARD INCLUSIVE CLASSROOMS (STATIC) AND SCORING GUIDE

STATIC

Scale Of Teachers' Attitudes Toward Inclusive Classrooms

H. Keith Cochran, Ph.D.

1999

Directions: The purpose of this instrument is to obtain information about your attitude toward the inclusion of students with special needs in regular education classrooms. There are no correct or incorrect answers. Your responses are completely autonomous and confidential. You should select your response to each item.

Demographic Questions

1. Select the number that identifies the number of years experience you have teaching
 - a. 0.5-1 year
 - b. 2-5 years
 - c. 6-10 years
 - d. 11-15 years
 - e. More than 15 years
2. Select the number that best describes your average class size
 - a. 1-10 students
 - b. 11-20 students
 - c. 21-30 students
 - d. 31-40 students
 - e. More than 40 students
3. Please identify the level of students you teach
 - a. 6-8 grade
 - b. 9-12 grade
4. Fill in the response that identifies the highest degree that you have earned
 - a. Bachelor's Degree
 - b. Master's Degree
 - c. Doctor of Education
 - d. Doctor of Philosophy
5. Select the number that corresponds with the number of students that are included in your classroom this year that have been identified as special education students
 - a. 0 students
 - b. 1 student
 - c. 2-3 students
 - d. 4-5 students
 - e. More than 5 students
6. In response to question 5, select the response that best describe the special need(s) most closely associated with children in your classroom

- a. Learning differences
- b. Behavioral Differences
- c. Health and physical differences
- d. None of these
- e. All of these

After reading each item, decide how you would react. Rate your reaction using the scale below as your guide to describe the extent you believe best describes your attitude. Answer any items that do not specifically define the type of disability or special need of a student with the response that best describe your general perception of a student with a disability or special need.

- 0 STRONGLY DISAGREE
- 1 DISAGREE
- 2 NOT SURE, BUT TEND TO DISAGREE
- 3 NOT SURE, BUT TEND TO AGREE
- 4 AGREE
- 5 STRONGLY AGREE

1. I am confident in my ability to teach children with special needs.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
2. I have been adequately trained to meet the needs of children with disabilities.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
3. I become easily frustrated when teaching students with special needs.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
4. I become anxious when I learn that a student with special needs will be in my classroom.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE

5. Although children differ intellectually, physically, and psychologically, I believe that all children can learn in most environments.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
6. I believe that academic progress is possible in children with special needs.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
7. I believe that children with special needs should be placed in special education classes.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
8. I am comfortable teaching a child that is moderately physically disabled.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
9. I have problems teaching a student with cognitive deficits.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
10. I can adequately handle student with mild to moderate behavioral problems.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE

11. Students with special needs learn social skills that are modeled by regular education students.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
12. Students with special needs have higher academic achievements when included in the regular education classroom.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
13. It is difficult for children with special needs to make strides in academic achievement in the regular education classroom.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
14. Self-esteem of children with special needs is increased when included in the regular education classroom.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
15. Students with special needs in the regular education classroom hinder the academic progress of the regular education student.
 1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE

16. Special inservice training in teaching special needs students should be required for all regular education teachers.
1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
17. I don't mind making special physical arrangements in my room to meet the needs of students with special needs.
1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
18. Adaptive materials and equipment are easily acquired for meet the needs of students with special needs.
1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
19. My principal is supportive in making needed accommodations for teaching children with special needs.
1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE
20. Students with special needs should be included in regular education classrooms.
1. STRONGLY DISAGREE
 2. DISAGREE
 3. NOT SURE, BUT TEND TO DISAGREE
 4. NOT SURE, BUT TEND TO AGREE
 5. AGREE
 6. STRONGLY AGREE

STATIC SCORING INFORMATION

Revised 3/8/2000

1. Be sure to reverse code items 3, 4, 7, 9, 13, and 15 when entering or analyzing data as follows:
0=5, 1=4, 2=3, 3=2, 4=1, 5=0
2. Once the items indicated in #1 above are reverse coded, the sum score of the twenty items for each subject may be considered an index of their attitude toward inclusion. Higher scores are indicative of more positive attitudes. Lower scores are indicative of more negative attitudes.
3. Indices for each of the four factors identified for the STATIC may be calculated in the same manner. Items associated with each subscale are as follows:

Factor 1: Advantages and Disadvantages of Inclusive Education
Items: 7, 11, 12, 13, 14, 15, 20

Factor 2: Professional Issues Regarding Inclusive Education
Items: 1, 2, 3, 4, 9

Factor 3: Philosophical Issues Regarding Inclusive Education
Items: 5, 6, 10, 16

Factor 4: Logistical Concerns of Inclusive Education
Items: 8, 17, 18, 19
4. Please remember that at this time, the norm group for the STATIC was teachers from school districts in the Southeastern United States; therefore, inferences made from/to other populations may be limited ($N = 481$, $\mu = 58.91$, $\sigma = 7.94$, $sem = \pm 2.63$). However, the norm group did approximate a normal distribution.
5. Presently, STATIC data is being collected from teachers in the Midwestern United States, Canada, Great Britain, Greece, and Japan. Please share with the author of the STATIC your findings as additional information and data are available.
6. Any use of the STATIC requires that: (1) permission is obtained from the author, (2) the author's name appear on the instrument, (3) acknowledgment is made to the author of the instrument using one of the citations below in any publication(s) that may arise from the use of it, and (4) additional requests for permission to use the instrument be obtained for each subsequent use, research study, or project after initially obtaining permission. Minor changes may be made to the demographical data collected or to the instructions on the instrument for collecting demographical data to meet the individual needs for specific research questions.

H. Keith Cochran, Ph.D.
Assistant Professor
Department of Psychology



Appendix C

PERMISSION TO USE THE TEACHERS' SENSE OF EFFICACY SCALE



ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

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/>

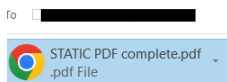
Best wishes in your work,

A handwritten signature in cursive script that reads 'Anita Woolfolk Hoy'.

Anita Woolfolk Hoy, Ph.D.
Professor Emeritus

Appendix D

PERMISSION TO USE SCALE OF TEACHERS' ATTITUDES TOWARDS INCLUSIVE CLASSROOMS (STATIC)



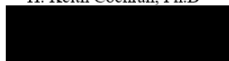
Dear Ms. Wood,

Thank you for your interest in the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) instrument. I am overwhelmed at the interest it has generated since having created it. It has been used in more than 25 countries and translated into at least 12 languages. Now, having been used in scores of studies, it has become the foremost instrument of its kind.

I am pleased to grant permission for you to use the STATIC in your research. Included is a PDF attachment of the STATIC instrument, scoring information, and a summary of the development of the instrument to assist with you with your work. I wish you the very best with your research and genuinely honored to be a part of it.

Sincerely,

H. Keith Cochran, Ph.D



Appendix E**LIBERTY UNIVERSITY**
INSTITUTIONAL REVIEW BOARD

December 27, 2022

Stephanie Wood

Rich Jensen

Re: IRB Exemption - IRB-FY22-23-536 THE RELATIONSHIP BETWEEN SECONDARY TEACHERS' SELF-EFFICACY SUBSCALES OF STUDENT ENGAGEMENT, INSTRUCTIONAL PRACTICES, AND CLASSROOM MANAGEMENT, AND ATTITUDES ABOUT THE INCLUSIVE SETTING.

Dear Stephanie Wood, Rich Jensen,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your

research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office

Appendix F
SITE APPROVAL

November 14, 2022

Dear Liberty University Institutional Review Board:

The purpose of this letter is to inform you that Mrs. Stephanie Wood, candidate for the Doctor of Philosophy degree at your institution, has been granted permission to conduct her research titled, "The relationship between secondary teachers' self-efficacy subscales of student engagement, instructional practices, and classroom management, and attitudes about the inclusive setting" within the

I understand that Mrs. Wood will receive consent from all participants, and will provide all participants with appropriate information should they experience any adverse outcomes as a result of the research, or wish to discontinue participation. Any data collected by Mrs. Wood will be kept confidential, and appropriate measures taken to secure data in her possession. Mrs. Wood has agreed to share a copy of the aggregate results of her study.

Sincerely,



Appendix G

Consent

Title of the Project: The relationship between secondary teachers' self-efficacy subscales of student engagement, instructional practices, and classroom management, and attitudes about inclusive setting.

Principal Investigator: Stephanie Wood, Doctoral Candidate at Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be general secondary education teachers who have taught in a single district for half a year. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to determine if there is a relationship between in-service general secondary teachers' self-efficacy regarding the subscales of student engagement, instructional practices, and classroom management, and in-service secondary teachers' attitudes toward the inclusive setting.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Watch the video explaining the process of the study and the terminology associated with the study. This will take about three to five minutes.
2. Complete the first anonymous survey via Survey Monkey. The first survey is The Scale of Teachers' Attitudes towards Inclusive Classrooms (it includes demographic questions as well as a multiple-choice section) and will take about ten minutes to complete.
3. Complete the second survey via Survey Monkey. The second survey is The Teachers' Sense of Efficacy Scale long form and will take about ten minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include gathered data to increase resources, professional development, and awareness of teachers' needs to improve education for students in an inclusive setting.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Liberty University
IRB-FY22-23-536
Approved on 12-27-2022

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer and may be used in future presentations. Information that is printed for data analysis will be stored in a locked cabinet and will be disposed of five years after the completion of the study.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Does the researcher have any conflicts of interest?

The researcher serves as teacher at the school. To limit potential or perceived conflicts the study will be anonymous, so the researcher will not know who participated. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or [REDACTED]. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Stephanie M. Wood. If you have any questions, **you are encouraged** to contact her at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Rich Jensen, at [REDACTED].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the study for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

By checking the box below, you are indicating that you have read and understand the above information, that you have asked questions and have received answers, and that you give your consent to participate in the study.

Appendix H

EMAIL TO ELIGIBLE PARTICIPANTS

Dear Colleague:

As a graduate in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to determine if there is a relationship between in-service general secondary teachers' self-efficacy regarding the subscales of student engagement, instructional practices, and classroom management, and in-service secondary teachers' attitudes toward the inclusive setting. The study is being done to understand teacher efficacy beliefs concerning student engagement, instructional practices, classroom management, and inclusive settings so that resources and training opportunities can be identified to help teachers improve the inclusive learning environment for all students and address problems with the variables. I am writing to invite eligible participants to join my study.

Participants must be general secondary education teachers who have taught for half a year in the single district. Participants, if willing, will be asked to watch a video explaining the process and terminology of the study (five minutes) and take two online surveys on one document (fifteen-twenty minutes). Names and other identifying information will be requested as part of this study, but the information will remain confidential.

The consent form will be provided at the beginning of the survey. The consent document contains additional information about my research. After you have read the consent form, please check the box, identifying that you give consent to participate in the study.

To participate, please watch the introductory video here [REDACTED]
[REDACTED] and complete the survey here
[REDACTED]

Sincerely,

Stephanie M. Wood
Doctoral Candidate
[REDACTED]