PREDICTORS OF SELF-EFFICACY OF CHRISTIAN SCHOOL TEACHERS TOWARD INCLUSION OF STUDENTS WITH DISABILITIES

by

Lisa Halsey Joyner

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

The purpose of this quantitative correlation study was to determine how accurately self-efficacy for inclusion of students with special needs could be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools. When the factors that predict teachers' self-efficacy for inclusion of students with disabilities (SWD) are understood, school leaders can tailor more effective professional development and training to improve the willingness and effectiveness of teachers to create inclusive school environments. An online survey of teachers' self-efficacy for inclusion was completed by 139 general education teachers from North Carolina Christian schools; participants also provided information related to their pre-service training, in-service training, and years of experience in education. Self-efficacy for inclusion was measured using the Teachers Efficacy for Inclusive Practices (TEIP) and compared to demographic information provided by the participants. Data was analyzed with a multiple regression to determine the best predictors of teachers' attitudes toward inclusion. The results indicated no significant correlation between the predictor variables and teachers' aggregate self-efficacy for inclusion or the subfactors of inclusive instruction, collaboration, and managing disruptive behaviors. Future research should consider a qualitative component for a more comprehensive understanding of how teachers define inclusion and their self-efficacy for inclusion. Also, future researchers should analyze each of the three predictors and the responses to individual items on the instrument separately.

Keywords: Christian schools, inclusion, inclusive education, inclusive special education, special education, disabilities, self-efficacy

Dedication

This dissertation is dedicated to my father, Dr. Johnny Lee Halsey (1932-2019). He and my mother Dorothy Halsey modeled biblical living in our home and introduced me to my Savior as soon as I was old enough to understand that I needed One. Dad and Mom served in ministry most of their adult lives, and they demonstrated to me and my siblings that it is a blessing and an honor to serve Him. Many years ago, when I was unsure of what to study in college, Dad told me that I should study education. He said that he saw in me the gift of teaching. I didn't believe him, but he was right. After a few years of denying it, God used Psalm 37:4 (NKJV) to change my heart: "Delight yourself also in the Lord, and he shall give you the desires of your heart." When I finally stopped doubting God's purpose for my life, I discovered true fulfillment in teaching and inspiring students to love learning as much as I do. Dad predicted that I would one day complete my doctorate in education. I fought him on that too, but he was right again. When I began to take courses toward my Ed.D., Dad asked to read every paper I wrote. He told me that he wanted to live long enough to watch me walk the aisle to receive my degree. He became sick and passed away before I could do that, but his unfailing encouragement and belief in me have inspired me when I was tempted to give up. If he had lived long enough to see this study published, he would have read every word.

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List of Abbreviations

American Association of Christian Schools (AACS)

Association of Christian Schools International (ACSI)

Emotional and behavioral disorder (EBD)

Individuals with Disabilities Education Act (IDEA)

Individualized Education Plan (IEP)

Inclusive Special Education (ISE)

Least restrictive environment (LRE)

National Center for Education Statistics (NCES)

Oral Roberts University education fellowship (ORUef)

Professional development (PD)

Response to Intervention (RTI)

Students with disabilities (SWD)

Students without disabilities (SWOD)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative correlational study was to determine how accurately self-efficacy for inclusion of students with special needs can be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools. Chapter One provides a background for the topics of Christian schools, inclusion, and special education. Included in the background is an overview of the theoretical framework for this study. The problem statement examines the scope of the recent literature on this topic. The purpose of this study is followed by the significance of the current study and the research questions. The chapter concludes with a list of key terms and their definitions.

Background

According to a survey released by the National Center for Education Statistics in 2019, a total of 5,719,990 students were enrolled in private schools with 2,188,240 of those students enrolled in "other religious" schools. Survey results included data on race/ethnicity, locale, and grade levels of private schools, but did not include results based on disabilities and needs for special services because this information is not collected by the Department of Education. As a result of the passage of the Individuals with Disabilities in Education Act (IDEA), public schools are required to provide a free and appropriate education (FAPE) to students with disabilities, (IDEA, 1975). Christian schools, on the other hand, may choose whether to enroll students with disabilities (SWD). The limited number of Christian schools that do offer inclusion for disabled students provide those services without access to federal or state resources (Lane et al., 2019). Christian schools (along with all other private schools) are not held to the legal mandates of IDEA

for special education; consequently, very little literature exists to describe the special education practices in Christian schools or the self-efficacy of Christian school teachers toward SWD (Bachrach, 2021; Lane, 2017).

Once a SWD gains admission to a Christian school, the focus shifts to equity and support for inclusion in the classroom; the student may need an individualized education plan (IEP) to include classroom accommodations and modifications (Burton, 2021). This presents a challenge for the administrators and teachers in Christian schools who have fewer resources for providing special services to SWD. According to a search by Lane (2017), only a few higher education institutions offered programs for pre-service educators preparing to teach SWD in Christian schools. As a result, teachers in Christian schools must develop their own procedures and policies for providing special education services (Lane, 2017). In addition, the attitudes of teachers toward the inclusion of SWD may present a challenge. Some Christian school teachers express concern that providing special education services will compromise their high academic standards for the students without disabilities (SWOD) and be disapproved of by the parents of SWOD (Bachrach, 2021). Teacher competence for planning and differentiating instruction may be one of the most important factors in a student's success (Kart & Kart, 2021); therefore, it is important to study the predictors of Christian school teachers' self-efficacy for the inclusion of SWD.

Historical Overview

According to Stainback and Smith (2005), education for SWD is a relatively new concept in the United States. In the late 1700s, Dr. Benjamin Rush introduced the concept of educating individuals with disabilities; in 1817, Thomas Gallaudet established the American Asylum for the Education and Instruction of the Deaf and Dumb, and other programs for the education of the disabled followed soon after. In the early 1900s, the preferred method of educating SWD was in

special classes and special day schools; in the 1950s and 1960s, SWD were educated in public schools, but only in special classes separate from their non-disabled peers. Stainback and Smith (2005) traced the movement to include SWD in general classrooms rather than in separate settings following the Civil Rights Movement when it began gathering momentum, and it has continued to grow in the following decades.

It was not until the passage of IDEA in 1975, that children with special needs were guaranteed the same rights to an education as their non-disabled peers. IDEA mandates that children from age 3-21 who have disabilities have the right to a free and appropriate education (FAPE) alongside their non-disabled peers (Individuals with Disabilities Education Act, 1975). By 2016, more than 60% of SWD who attended public schools were spending 80% of their school day in general education classrooms along with SWOD (Gilmour, 2018). Approximately 4.9 million children attend private schools in the United States; 78% of those students are enrolled in private, faith-based institutions (Broughman, et al., 2019). The National Center for Education Statistics (2019) reported that 14% of the students presently enrolled in public schools had been identified as having disabilities, compared to only 2.5% enrolled in any private school. The report did not include data on the number of those schools who provide special education services. Because this information was not collected by the U. S. Department of Education, determining the number of private schools in the United States who admit children with disabilities is difficult (Bachrach, 2021).

In 2015, Lane and Jones surveyed 240 faith-based K-12 schools and found that the proportion of SWD in faith-based schools ranged from 1% to almost 18%. In a 2020/2021 survey of one of the largest Christian school associations, the Association of Christian Schools International (ACSI), only 309 schools responded positively to the question regarding whether

they provided special education services; the remainder of the 700 schools who completed the survey skipped the question. Consequently, the lower bound estimate of schools who provide special education is 16% of the schools who completed the survey or 114 schools (*2020-2021 Tuition and Salary Survey Member Report,* 2021). In a similar survey by the American Association of Christian Schools (AACS) in 2020/2021, only 58 of 693 member schools responded that they offer some form of special education for their students (Walton, personal communication, November 3, 2021).

Christian schools have been in existence in the United States since the 1800s (Ramirez & Stymeist, 2019). Because they are private and not financed by the government, they are not subject to the mandates of IDEA to provide special education services (Lane et al., 2019). Christian schools who do enroll SWD usually limit admission to students with attention-deficit hyperactive disorder (ADHD), specific learning disabilities (SLD), and other mild disabilities. Those with intellectual disabilities or emotional and behavioral disorders (EBD) are generally not admitted (Bachrach, 2021).

Society-at-Large

Multiple studies suggest a moderate positive outcome of inclusive education for SWD (Kart & Kart, 2021; Kefallinou et al., 2020; Krämer et al., 2021). Kefallinou et al. (2020) found that implementing effective inclusion practices and developing a culture of inclusiveness improves learner outcomes and ensures their social inclusion as adults. Their review of the scholarly evidence on inclusive education between the years 2015 to 2020, indicated that both SWD and SWOD could achieve substantial short- and long-term benefits from attending inclusive classes whether in public or private schools.

Christian schools who practice inclusion of SWD have discovered that inclusion enhances the social and academic environment of the entire school body. Stegink (2010) traced the evolution of support services that the Christian Learning Center (CLC) offers to Christian schools throughout the United States to assist their efforts to move toward a more inclusive setting. The CLC found that an inclusive model proved efficacious for all students in the Christian schools that they surveyed, those with disabilities as well as those without. Fears of a negative impact on SWOD were unfounded. They also found that the costs associated with inclusion were similar to those associated with traditional, self-contained instruction. The benefits for the Christian schools extended to the teachers as well. Special education teachers moved out of self-contained classes and worked alongside general education teachers as supporters of students with obvious disabilities and those with milder learning disabilities. Finally, general educators embraced the idea of shared ownership of all students in the learning community and became more open to collaboration with special education teachers.

Theoretical Background

This study was guided by the theories of self-efficacy (Bandura, 1977), planned behavior (Ajzen, 1985), and inclusive special education (Hornby, 2015). The theories of self-efficacy and planned behavior were used to understand how the attitudes of teachers toward inclusion related to teachers' self-efficacy for creating inclusive environments for SWD. Teacher attitudes and beliefs toward inclusion influence their levels of self-efficacy for implementing inclusive education (MacFarlane & Woolfson, 2013; Woodcock & Jones, 2020). Alnahdi and Schwab (2021) concluded that teachers' attitudes toward inclusion was a main predictor of teachers' beliefs in their self-efficacy for inclusion. A plethora of studies have discovered strong correlations between teachers' attitudes toward inclusion and their self-efficacy for diversifying

instruction in the general classroom (Carew et al., 2019; MacFarlane & Woolfson, 2013; Savolainen et al., 2020).

The theory of planned behavior (TPB) complements the theory of self-efficacy by providing a framework for understanding the intentions of teachers for implementing inclusive education. Ajzen (1991) proposed that an individual's attitude toward a behavior has the potential to impact one's intention to perform the behavior. This theory can be applied to teachers' beliefs and self-efficacy for inclusion which affect intention and subsequent implementation of inclusive strategies. The two theories of self-efficacy and planned behavior have frequently been used together by other researchers who have investigated the attitudes and self-efficacy of teachers (Yada et al., 2022).

The theory of inclusive special education (ISE) (Hornby, 2015) brings clarity to the definition and interpretation of inclusion that this study employed in examining the attitudes of Christian school teachers toward inclusion. Hornby's (2015) interpretation of inclusion includes both special education and general education placement (with appropriate accommodations and modifications). This approach is considered by some researchers to be more effective than the uniform and inflexible full inclusion interpretation (Ahrbeck & Felder, 2020; Fitzgerald & Radford, 2020; Hornby, 2015, 2021; Kauffman & Hornby, 2020). Because of the lack of unanimity on a common interpretation of inclusion, the theory of ISE guided this study.

Problem Statement

Inclusion of SWD has been a world-wide initiative for educators since the 1990s (Cate et al., 2018). Within the past five years, researchers from several countries have studied the effect that teachers' attitudes and self-efficacy for inclusion have on the learning outcomes of both SWD and SWOD (Barber, 2018; Cate et al., 2018; Gómez-Marí et al., 2022; Ismailos et al., 2022;

Rodríguez-Fuentes, 2021; Saloviita, 2019; Saloviita, 2020; Sanahuja et al., 2020; Sunyoung Kim et al., 2020; Van Steen & Wilson, 2020; Yada et al., 2022). Despite the attention that inclusive education has received, educators continue to struggle with implementing inclusion strategies and creating successful inclusive environments for all students; understanding teachers' beliefs about inclusion of SWD can improve its implementation and help promote inclusive practices in general classrooms (Sunyoung Kim et al., 2020).

There is a scarcity of research on Christian education in general, and even less on issues related to special education or inclusion in Christian schools, perhaps because Christian schools, along with other non-public schools have no legal obligation to educate SWD (Bachrach, 2021; Lane, 2017). Bachrach (2021) suggested that research on Christian schools who serve SWD is severely limited because so few Christian schools admit students with disabilities. Lane et al. (2019) concluded that their study was the first to examine the pedagogical approaches related to creating an environment of inclusion and hospitality toward SWD in Christian schools. Understanding the predictors of teachers' self-efficacy for inclusion is crucial for improving teacher practice, teacher preparation, and professional development for inclusion of SWD (MacFarlane & Woolfson, 2013). Despite the broad state of research on the link between self-efficacy and inclusion practices of teachers, there remain unanswered questions and unaddressed research needs on teachers who teach outside of the public education system. The problem is that the literature has not fully addressed the factors that predict Christian school teachers' self-efficacy for inclusion of SWD (Lane, 2017).

Purpose Statement

The purpose of this quantitative correlational study was to determine how accurately self-efficacy for inclusion of students with special needs can be predicted from a linear combination

of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools. The lack of inclusion in Christian schools has been noted in the research, but few studies have researched the self-efficacy of Christian school educators toward the inclusion of children with special needs in general classrooms. The term inclusion does not have an agreed-upon definition by educators and policymakers. For this study, the researcher used the definition by Hornby (2015). Inclusion is the educating of students with special needs in the most inclusive settings in which their behavioral and academic needs can be met most advantageously using the most effective instructional strategies available; this includes ensuring that special education teachers assist general education teachers with implementing effective education for SWD while also providing special education settings for those students with higher levels of disability.

Four criterion variables were measured in this study. The first variable was general education teachers' aggregate self-efficacy for teaching in an inclusive classroom. According to Bandura (1977), self-efficacy is a person's estimate that a behavior will lead to expected outcomes; and teacher self-efficacy is described as teachers' beliefs that are related to the efforts they invest in instruction, goals they set, and their persistence in the face of setbacks (Tschannen-Moran & Hoy, 2007). The next criterion variable was teacher efficacy for inclusive instruction. Ainscow (2005) defined inclusive instruction as actions which attempt to overcome barriers to the learning and participation of all students. Inclusive pedagogy refers to any strategy that teachers use to ensure that SWD can learn in the general education classroom (Finkelstein et al., 2021). The third criterion variable was teacher efficacy for collaboration. In a review of the literature on topics related to teacher collaboration, Newell and Bain (2018) found that definitions of

collaboration share key elements: two or more individuals; autonomous and voluntary; and engaged together in processes or interactions toward a common goal or mutual benefit. Their research revealed that collaboration extends beyond a predisposition to work with other teachers but involves a complex matrix of diverse and interdependent factors. The final variable examined was teacher efficacy for managing disruptive behavior. This variable highlighted a teacher's ability to control student behaviors that interfere with the participation of other students or productive classroom activities. Disruptive behaviors are deliberate verbal or physical displays of improper behavior that are intended to provoke others or call attention to self; inappropriate use of classroom items; or actions intended to annoy, pester, or mock others (Caldarella et al., 2021).

Predictor variables were the following: (1) pre-service training in special education; (2) in-service professional development on topics related to special education; and (3) years of teaching experience. Pre-service training in special education refers to the number of special education courses completed prior to a teacher's first year of teaching (US Department of Education, 2021a). In-service professional development is an on-going process that continues throughout a teacher's professional career to enhance knowledge and practices that impact learners' outcomes (Sancar et al., 2021). Years of experience was confirmed with the teacher's number of years he or she had been a classroom teacher. The population studied were general education teachers who were employed in Christian schools, located in North Carolina. A convenience sample of 139 came from teachers who volunteered to respond to questions on a survey of self-efficacy for inclusion and provided information on the predictor variables through a researcher-prepared questionnaire.

Significance of the Study

Demand for inclusion in Christian schools is growing from parents of children with special needs, yet Christian schools continue to lag significantly behind their public school counterparts in including SWD (Lane et al., 2019). Because private schools are not required to provide special education services, children with disabilities in Christian schools are even less likely to have access to inclusive classrooms. Parents of SWD have few options for educating their children in a school that supports their faith but also provides the academic and behavioral supports necessary to meet the needs of their children (Bachrach, 2021; Lane et al., 2019; Marshall, 2020).

Teachers play a crucial role in successfully implementing inclusive education (Van Mieghem et al., 2020). Teacher's attitudes toward SWD impact their self-efficacy, and teachers' perceived self-efficacy for their instructional abilities predicts their pedagogical decisions and effectiveness (Cate et al., 2018; Summers et al., 2017). General education classes are not always perceived to be equipped to meet the needs of SWD; the skills of general education teachers are most often noted as a weakness (Connor & Ferri, 2007). Teachers' competencies for inclusion must be strengthened to ensure the best possible outcome for students (Krämer et al., 2021).

Students experience positive outcomes when teachers have positive attitudes about inclusion, use adaptive instructional methods, and collaborate with special education teachers, yet one of the main barriers to successful inclusion is teacher competence for implementing inclusive strategies (Kart & Kart, 2021). Teachers report that they face many challenges: a lack of resources, time, heavy teaching load, a variety of skill levels of students, and heavy curricular responsibilities; however, the major challenge for differentiation may be teachers' mentality (Valiandes & Neophytou, 2018; Woodcock & Jones, 2020). Teachers' attitudes and actions are

shaped by what they know and believe about differentiation (Valiandes & Neophytou, 2018). When teachers believe in their ability to cope, they are more willing to persevere when differentiation becomes difficult (Bandura, 1977).

Professional development holds potential for changing attitudes about inclusion and equipping teachers to meet the needs of all the students in their classes (Van Mieghem et al., 2020). The knowledge gained from this quantitative, correlational study of Christian school teachers can be generalized to the wider population of public and private schools of the United States as a tool for predicting the factors that influence teachers' self-efficacy for creating inclusive classrooms for students with varying degrees of strengths and weaknesses. Increasing the confidence of Christian school teachers in inclusion practices may encourage more Christian schools to enroll SWD and give more options to families of children with disabilities.

Research that targets the self-efficacy of Christian school teachers toward inclusion is critical for expanding the growth and effectiveness of inclusive Christian schools (Lane et al., 2019). The goal of this study was to add to the existing body of knowledge about Christian schools' efforts and practices for including SWD. When the predictors of Christian school teachers' self-efficacy toward inclusion are understood, administrators can make informed decisions regarding implementing professional development. In addition, universities and colleges that prepare teachers can use the results of this study to develop more effective pre-service opportunities to enhance the self-efficacy of pre-service teachers. This study sought to add to the body of knowledge on the topic of teachers' self-efficacy for inclusion in Christian schools.

Research Questions

Four research questions were developed for this study:

RQ1: How accurately can aggregate self-efficacy for inclusion of students with special needs be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ2: How accurately can teacher efficacy for using inclusive instruction be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ3: How accurately can teacher efficacy for collaboration be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ4: How accurately can teacher efficacy with managing disruptive behaviors be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

Definitions

1. *Attitude* – a psychological tendency that involves evaluating a particular object with some degree of favor or disfavor (Eagly & Chaiken, 1993).
2. *Collaboration* – two or more individuals; autonomous and voluntary; engaged together in processes or interactions toward a common goal or mutual benefit (Newell & Bain, 2018)
3. *Differentiation* – teaching that has been modified to address the diverse cognitive abilities of all students (Deunk et al., 2018)

4. *Disruptive Behaviors* – deliberate verbal or physical displays of improper behavior that are intended to provoke others or call attention to self; inappropriate use of classroom items; or actions intended to annoy, pester, or mock others (Caldarella et al., 2021)
5. *Inclusion* – The term *inclusion* does not have an agreed-upon definition by educators and policymakers. For this study, the researcher will use the definition by Hornby (2015). Inclusion is the educating of students with special needs in the most inclusive settings in which their behavioral and academic needs can be met most advantageously using the most effective instructional strategies available; this includes ensuring that special education teachers assist general education teachers with implementing effective education for SWD while also providing special education settings for those students with higher levels of disability (Hornby, 2015).
6. *Inclusive Instruction* – actions which attempt to overcome barriers to the learning and participation of all students (Ainscow, 2005); any strategy that teachers use to ensure that SWD can learn in the general education classroom (Finkelstein et al., 2021)
7. *Pre-service Training* – the number of special education courses completed prior to a teacher's first year of teaching (US Department of Education, 2021a)
8. *Professional Development* – an on-process that continues throughout a teacher's professional career to enhance knowledge and practices that impact learner outcomes. It involves interaction between a teacher's knowledge and beliefs, in-class instructional strategies, and student learning outcomes; the focus is on increasing teacher learning, changing classroom practices, and improving student outcomes (Sancar et al., 2021)
9. *Self-efficacy* – a person's estimate that a behavior will lead to expected outcomes (Bandura, 1977)

10. *Teacher Self-efficacy* – theory that a teachers' self-efficacy beliefs are related to the efforts they invest in instruction, goals they set, and their persistence in the face of setbacks (Tschannen-Moran & Hoy, 2007)

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this literature review was to present the essential elements, interpretations, benefits, and challenges of inclusive education, and to review the relationship between teaching training, experience, and teacher efficacy. The chapter opens with the theoretical framework. This study was grounded in Bandura's self-efficacy theory (1977), Ajzen's theory of planned behavior (1985), and Hornby's theory of inclusive education (2015). A thorough review of the literature pertinent to inclusion in public schools, Christian schools, and teacher efficacy completes the chapter which ends with a summary.

Theoretical Framework

Self-efficacy

The theory of self-efficacy was first articulated by Albert Bandura (1977) as part of the broader theory of social cognitive learning to explain how individuals acquire new patterns of behavior through direct experience or by their observations of others. He expanded the theory of observational learning and applied it to the learning of social, motor, cognitive, and self-regulation skills, as well as moral development, violence, health, values, and education (Schunk, 2020). Social cognitive theory provides explicit strategies for equipping individuals with the self-regulatory capabilities, competencies, and sense of self-efficacy that will enhance their well-being and their belief in their capabilities (Bandura, 2012). The theory of self-efficacy refers to one's perceptions of his/her capabilities; when one expects to do well at a task, the motivation is greater for attempting difficult challenges. Self-efficacy influences performance levels by raising persistence and enhancing effort; individuals seek satisfaction from achieving valued goals and are prompted to increase their efforts when they feel discontent with substandard performance

(Bandura, 1977). Self-efficacy influences motivation, and motivation influences behavior (Schunk, 2020). Individuals with high self-efficacy set high goals for themselves and mount a vigorous effort to achieve those goals; those with lower self-efficacy make goals they believe are achievable and work a bit harder to realize those goals (Bandura, 2012).

The most frequently studied attitudinal variable, teacher self-efficacy, is defined as teachers' beliefs that are related to the efforts they invest in instruction, goals they set, and their persistence in the face of setbacks (Saloviita, 2020; Tschannen-Moran & Hoy, 2007). Belief in one's ability to organize and execute strategies to successfully accomplish a specific instructional task in a particular context predicts pedagogical decisions and effectiveness (Summers et al., 2017). Teachers who have high self-efficacy in their abilities tend to set higher goals for themselves and provide better instruction for their students (Bandura, 2012; Summers et al., 2017). Teachers' levels of self-efficacy to teach in inclusive classrooms directly impact their proficiency in differentiating instructional strategies and positively influencing student outcomes (Bandura, 1977; Summers et al., 2017). When teachers believe in their capacity for differentiation, they are better able to cope and more willing to persevere when it becomes difficult (Bandura, 1977). Teachers with low self-efficacy have lower expectations for their students. They tend to ask easier questions, give less time to respond, offer fewer prompts, and express less warmth in teacher-student interactions (Zohar et al., 2001). One of the key findings in a study of teachers working in inclusive classes revealed that teachers who reported high self-efficacy implemented inclusion to the greatest extent; the researchers suggested that self-efficacy could be a key factor for the successful implementation of inclusive education (Kiel et al., 2020).

A multitude of research studies have sought to discover a correlation or even a causal connection between teachers' attitudes toward inclusion and their self-efficacy for implementing

inclusion. One study in Kenya found a weak or inconsistent correlation between attitude and self-efficacy; changing the self-efficacy of teachers did not predict attitudes or beliefs toward inclusive education (Carew et al., 2019). Likewise, Savolainen et al. (2020) provided convincing evidence that teachers' self-efficacy for inclusion has a stronger influence on teachers' attitudes than vice versa; in this study, teachers' sense of self-efficacy had only a weak correlation with attitudes toward inclusion. However, several more studies, including an earlier one by Savolainen et al. (2012) found strong positive correlations between teachers' attitudes toward inclusion and their self-efficacy (MacFarlane & Woolfson, 2013; Yada et al., 2022). The results of a study by Woodcock and Jones (2020) examining the interrelationships between self-efficacy and teachers' beliefs toward inclusion supported the findings of those studies. Their results suggest that teachers with higher reported levels of self-efficacy were more likely to support the premise that an inclusive classroom is the most effective way to educate both SWD and SWOD. The researchers in this Finnish study surmised that increases in self-efficacy are likely to lead to more positive attitudes toward inclusion.

One way to improve teacher's self-efficacy may be in targeting the four sources of self-efficacy: (a) mastery experience, (b) vicarious experience, (c) verbal persuasion, and (d) affective state (Bandura, 1977; Yada et al., 2022). According to Sharma (2018), a number of researchers believe that a teacher must have a positive attitude toward SWD and toward inclusion in order for the teacher to successfully practice inclusion. Positive outcomes for students are more likely when teachers have positive attitudes about inclusion, use adaptive instructional methods, and collaborate with special education teachers (Kart & Kart, 2021; Krämer et al., 2021).

Theory of Planned Behavior

The theory of planned behavior (Ajzen, 1985) offers an explanation of an individual's attitude and behavior. This theory complements the theory of self-efficacy and provided an additional theoretical framework for this study. This theory proposes that an attitude toward a behavior can predict one's intention to perform a particular behavior. The theory of planned behavior is based on three factors that predict an individual's behavioral motivations and subsequent behavior: (a) attitude toward the behavior; (b) a subjective norm; and (c) one's perception of his behavioral control (Ajzen, 1991). The theory of self-efficacy and the concept of planned behavior are considered very similar as the three factors are interwoven and influence one's behavioral intention and the actual behavior (Yada et al., 2022). The constructs employed in this theory are fundamentally motivational; the intention to perform the behavior is the immediate antecedent of the behavior; the stronger the intention, the more likely the individual will try, therefore increasing the likelihood that the individual will perform the behavior (Ajzen & Kruglanski, 2019).

In line with this theoretical model, the attitudes and beliefs of teachers toward SWD and inclusion are considered to be one of the most influential predictors for successful inclusion; teachers' beliefs about inclusion have a demonstrated impact on their teaching behavior (Lautenbach & Heyder, 2019). In their meta-analysis of the relationship between teachers' self-efficacy and attitudes toward inclusion, Yada et al. (2022) provided evidence that the theories of self-efficacy (Bandura, 1977) and planned behavior (Ajzen, 1991) are often used together by researchers in studies that link teachers' self-efficacy with their attitudes toward inclusive education. Although Yada et al. (2022) did not discover a causal relationship of self-efficacy on attitudes, their analysis of multiple studies did provide evidence to support the universality of the

relationship and suggested that future studies on inclusion should consider both self-efficacy and attitudes as possible predictors of teacher behavior.

Theory of Inclusive Special Education

The theory of inclusive special education (ISE) was first proposed by Hornby (2015) to synthesize the values, philosophy, and practices of inclusive education with the procedures, strategies, and interventions of special education. The goal of ISE is to provide a vision and guidelines for the policies, procedures, and instructional strategies that provide an effective education for children with behavior or learning disabilities whether in special schools, special classes, or inclusive schools. ISE considers the identification of SWD, setting up IEPs, and creating transition plans as essential for providing an effective education for children with disabilities. This theory acknowledges that many children with more severe disabilities are uncomfortable in the general classroom and are more comfortable with peers who have similar interests, abilities, and disabilities to themselves. According to ISE, these factors should be considered when considering educational placements (Hornby, 2015). Fitzgerald and Radford (2020) used ISE to provide a framework for their study in Ireland exploring the factors that influence leadership for special and inclusive education.

The key aspects of the theory of ISE are the following: (1) providing a continuum of placement options from general classrooms to special schools, (2) educating as many SWD in general classrooms as is appropriate, (3) ensuring that SWD are provided an education in the most appropriate setting with regular assessments to ensure that they continue to be educated in the most appropriate setting as they progress throughout their entire school life, (4) collaborating and sharing expertise between regular and special education professionals, (5) using evidence-based practices from both inclusive and special education, and (6) effective organization and use of

resources in all settings to meet the needs of SWD (Hornby, 2021). ISE, as defined by Hornby, is a comprehensive approach and recognizes that all SWD will be provided for in the educational system, with the majority being served in mainstream schools that use resources and evidence-based strategies for supporting them in inclusive classrooms. Mainstream schools will also incorporate separate classes for some SWD, as well as collaborate closely with special education teachers to provide for students whose more severe disabilities are better served in special schools (Hornby, 2020).

Related Literature

The review of the literature examined the definitions and applications of inclusive education. The impact of inclusion on SWD and SWOD was examined along with the attitudes of teachers toward creating inclusive environments for students with a variety of abilities and disabilities in the general education classroom. This synthesis of the literature explored the impact of years of experience in the classroom as well as pre-service and in-service training for classroom teachers, along with the topics of collaboration, inclusive instruction, and managing disruptive behaviors. Finally, special education services in Christian schools was discussed.

Defining Inclusive Education

The Individuals with Disabilities Education Act (IDEA) of 1975 stipulates that all children from age 3-21 who have disabilities have the right to a free and appropriate education; one of the provisions of IDEA specifies that SWD must be educated in the least restrictive environment (LRE). Any placement other than the general classroom must be agreed on by a team of individuals which includes the child's parents, teachers, and administrators (P.L. 941-42, Section 1412 [5] [B]). Terminology used to describe the education of SWD in the general classroom has changed over time from mainstreaming to integration to inclusion (Anderson, 2006). The

Department of Education defines LRE as the regular classroom with appropriate aids and services in the school that the SWD would attend if they were not disabled, but some educators and parents argue that the LRE is not always the general classroom for some SWD (Underwood, 2018). Inclusion remains an ambiguous concept with the general population defining it primarily according to the place where the SWD receives instruction (Krischler et al., 2019; Van Mieghem et al., 2020). Less attention has been given to the methods for creating an inclusive educational system (de Beco, 2018).

A broadly defined goal of inclusion, accepted by many educators, is a transformation of educational systems to make them accessible and welcoming to all children; truly effective inclusive education incorporates a universal design to address the individual needs of children (de Beco, 2018). Some researchers explain the purpose of inclusion as an ideology that respects the rights of all learners to a quality education with a focus on increasing the participation of all students in mainstream classes (Kefallinou et al., 2020; Van Mieghem et al., 2020). Ainscow (2005) identified four foundational elements of inclusive education. First, inclusion is an ongoing process of searching for ways to diversify, learning how to live with differences, and learning from those differences. Second, true inclusion seeks to identify and remove barriers to learning by collecting, collating, and evaluating sources to plan for improving practice. Third, inclusion is about the presence (SWD attending school along with SWOD), participation (meaningful experiences), and achievement (learning the curriculum) of all learners. Fourth, inclusion focuses on students who are at risk of marginalization, exclusion, or underachievement. Inclusion requires that teachers be intentional in their attempts to ensure the presence, participation, and achievement of all students in the classroom and school environment.

A review of the literature revealed a lack of a common definition of inclusion; some are narrow and ambiguous and almost all refer only to the physical integration of disabled students in regular education classes (Dell'Anna et al., 2021). The synthesized research of Holmqvist and Lelinge (2021) of teachers' collaborative professional development for inclusive education revealed four separate definitions of inclusion: (1) classroom inclusion, (2) basic inclusion, (3) general inclusion, and (4) content inclusion. With such dissimilarity in meanings for inclusion, the authors were not surprised to learn that the models for professional development on topics of inclusion varied just as widely. Forlin and Deppeler (2022) observed that inclusive education is generally applied as "education for all" that removes the barriers and obstacles to prevent SWD from accessing education. This definition focuses on the support of all learners regardless of ability, status, background, or special need. Most literature bases inclusive education on three dimensions: (1) physical integration of students with disabilities in the same room as their non-disabled peers; (2) social integration that nurtures friendships, and (3) instructional integration (Friend & Bursuck, 2019; Qvortrup & Qvortrup, 2018).

Krischler et al. (2019) surveyed members of the general population, pre-service teachers, and in-service teachers to understand their interpretations of inclusion. The authors found that the varying groups perceived inclusive education in significantly different ways and impacted attitudes and efficacy for inclusive education. Finkelstein et al. (2021) described how international policy and legislation support an inclusive education agenda although a clear and specific definition of inclusion remains elusive. In addition, their thematic analysis of the research on the inclusive practices of classroom teachers revealed that the findings of research studies were impacted by the ambiguousness of the term as well as the inconsistent implementation of inclusive education. This difference of understanding on the definition of inclusion impacts

attitudes toward inclusive education policies and practices, highlighting the importance of clarifying how inclusion is defined and applied to inclusive education (Krischler et al., 2019). Wilcox (2020) came to the same conclusion that without an agreed-upon definition of inclusion, research studies cannot be adequately compared to determine the efficacy and effectiveness of inclusion. The research of Finkelstein et al. (2021) and Krischler et al. (2019) also demonstrated the importance of clarifying a definition and application of inclusive education in order to more adequately interpret the results of empirical findings related to inclusion.

The theory of inclusive special education (Hornby, 2015) offers a clear definition of inclusion that provided the foundation for this current study of the self-efficacy of Christian school teachers for inclusive practices. A central tenant to ISE is that evidence-based, proven methods should be used for teaching SWD. Hornby advocates for well-developed policies at both the government level and the school level to provide equitable and appropriate options for all students and to support teachers in their approach to teaching SWD in inclusive classes as well as in special classes (Hornby, 2014). This theory also focuses on giving parents more involvement in decisions related to their children's education (Chambers & Forlin, 2021).

Full Inclusion

Literature on the topic of inclusion is most often framed within the interpretation of inclusion as full inclusion of all SWD in all classes with SWOD. Full inclusion is one of the most controversial and divisive issues of special education policy, but it is popular with politicians, administrations, educators, scientists, and even some individuals with disabilities, perhaps because it is considered a social justice issue (Hornby, 2015; Kauffman et al., 2018). Full inclusion appears to be a reactionary approach to the historic lack of care in general education toward SWD, but some researchers consider it to be too simplistic a solution for a complex issue

(Wilcox, 2020). Advocates of full inclusion argue that all students, those with disabilities and those without, are the responsibility of the general educators but supported by special educators; they assert that children with disabilities should be taught the same curriculum but with appropriate accommodations and/or modifications (Friend & Bursuck, 2019). The principles of full inclusion require fundamental changes in general education, and according to some educators, less than full and meaningful participation is not real inclusion (Connor & Ferri, 2007). Full inclusion of SWD requires general education teachers to meet all the instructional needs of students who need Braille and sign language, feeding and toileting assistance, training in life and job skills, as well as intensive academic interventions (Wilcox, 2020).

Advocates of full inclusion demand that all SWD be educated in the same schools and same general classrooms as their non-disabled peers; it makes the place, or setting, of instruction the central issue (Florian, 2019; Kauffman et al., 2018). Haines et al. (2022) asserted that placing a SWD in a general classroom without adequate collaboration, differentiation, progress monitoring, and accommodations does not constitute inclusion although the statistics may denote an inclusive environment. Families of SWD who are simply placed in the general classroom without adequate support may develop negative attitudes toward inclusion and cause tension between the school and families (Forlin & Deppeler, 2022). Kauffman et al. (2018) suggested that advocates of full inclusion appear to be intent on abolishing special education schools and classes in favor of a new concept of having no separate education classrooms. According to Ahrbeck and Felder (2020), accusations in Germany take the extreme position of comparing special education to the Nazi era of sterilizing and murdering the disabled. Special education is viewed as a symbol of separation and exclusion and therefore incompatible with inclusive education. They add that

the pressure for full inclusion is seen by some prominent authors as a threat to the existence of special education, not only in Europe, but also in the United States.

Some educators and researchers propose that full inclusion is not appropriate for all students, suggesting the need for a more moderate understanding of inclusion that encompasses more than just the general education classroom as the only acceptable setting for a SWD (Hornby, 2021; Kauffman et al., 2018). Educators debate whether inclusion should go "as far as possible" or "without exception." Both positions fail to realize that inclusion is a constantly evolving process that needs constant adjustments and flexibility (de Beco, 2018). As Ahrbeck and Felder (2020, p. 8) stated, "inclusive education is unthinkable without a robust special education."

Inclusive Special Education

An alternate view to full inclusion is inclusive special education, which values diversity and encourages differentiation rather than uniformity and common curriculum (Hornby, 2015; Krischler et al., 2019). The work of Hornby (2015) is a relatively new approach toward ISE that provides a philosophy and guidelines for policies, procedures, and instructional methods for facilitating the provision of an appropriate education for all SWD. ISE is an equitable approach to inclusive education that focuses on excellence and not on equality (Hornby, 2020). Inclusive special education goes beyond simply including SWD in the general classroom; it is the belief that all students are equally important members of the educational community where they are enrolled; it is a complex process that involves multiple strategies to integrate students into the school community (Jimenez & Barron, 2019). Some students need intensive and individualized academic interventions that would not benefit most SWD in the general classroom (Wilcox, 2020). SWD often require a slower pace of instruction with more intensive feedback, more repetition, and more individualized instruction than necessary for the rest of the students in the

general education class (Cooc, 2019). Best practices for SWD are to determine the needs of the student and provide a range of options to meet his needs through quality differentiated instruction with accommodations/modifications within the general education classroom to the greatest extent possible or in a separate setting where more intense, individualized interventions can be provided (Bachrach, 2021; Hornby, 2021). The position held by advocates of ISE is that it is unreasonable to expect all SWD to achieve the average level of performance in the general classroom when they are at a greater academic disadvantage than their non-disabled peers (Ahrbeck & Felder, 2020).

Hornby (2014) proposed the following continuum of ISE environments from least restrictive to most restrictive:

- General education class with differentiation provided by the classroom teacher.
- General education class with consultation support provided by a special education teacher.
- General education class with support for the SWD provided by a teacher's aide.
- General education class with some time spent in a resource room.
- Special class within the school for all classes.
- Special class that is within the main school but part of a special school.
- Special school that is on the same campus as the regular school.
- Special school that is on a separate campus.
- Residential special school on a separate campus.

Parents of SWD do not want equal opportunities for their children but equitable ones; this will require that schools provide differentiated options for some learners (Chambers & Forlin, 2021). Another approach for meeting the needs of all students equitably is the "One School

Model" which recently emerged in Western Australia. This model takes a fully inclusive approach to physical placements for all students. All SWD attend the same school at the same site with their non-disabled peers, but they are given the choice to be placed in a regular classroom or a special classroom where their individual needs can be met. The schools in this model have one administrator who oversees the entire school with an associate principal who supports the SWD. This model is closely aligned to the ISE theory proposed by Hornby (2015). Educators collaborate with parents in making decisions on the best setting for their children (Chambers & Forlin, 2021).

The theory of ISE merges inclusion and special education without eliminating either one. While the policy of full inclusion promotes the integration of all SWD in the general education classroom with their non-disabled peers, ISE provides more alternatives for SWD based on their needs (Hornby, 2015). A small number of SWD would be taught in special schools nearby or in resource rooms within the same school as their peers, but most in the general education classroom. Hornby (2015) describes this process as one of collaboration between general education teachers and special education teachers working closely together to find the most appropriate setting. The focus of ISE is to include as many SWD as possible in general classrooms through effective collaboration between professionals, but also making other placement options available for students whose needs are best met outside the general classroom (Hornby, 2021).

Impact of Inclusive Education on Students With and Without Disabilities

A large body of research suggests that SWD and SWOD can achieve substantial short- and long-term benefits from attending inclusive classes (Kefallinou et al., 2020). A quasi-experimental study by Demirdag (2017) found that reciprocal interaction between SWD and SWOD established better engagement in the lesson and increased the conceptual understanding of

the science lesson used in the intervention. This “peer effect” indicates that students perform better when educated alongside their higher performing peers (Krämer et al., 2021). The continuous interaction of SWD and SWOD had a positive effect on students’ cognitive development (Demirdag, 2017). These results are supported by the theory of social cognitive learning; interactions of individuals from diverse backgrounds can demonstrate improved cognitive achievement within the same setting (Bandura, 1989).

A review of the literature on the benefits of inclusion found a moderate positive outcome of inclusive education for SWD (Kart & Kart, 2021; Krämer et al., 2021). The reviews of the literature noted that benefits of inclusion for SWD include decreased inappropriate behavior, increased academic learning, improved social skills, and friendships with their peers. Being educated in inclusive settings may prepare students for successful adult lives. One study suggested SWD are more likely to continue in higher education and have paid employment; whereas students who receive their education in special schools are more likely to be dependent on social security in their adult life (Kefallinou et al., 2020).

Not all the research found evidence of positive outcomes for SWD educated in inclusive classrooms. Because of the nature of their disabilities, the education of some SWD may be hindered in an inclusive classroom (de Beco, 2018). A review of the literature by Krämer et al. (2021) found that higher expectations and academic challenges can create a disadvantage and cause students to be overwhelmed, leading to demotivation, frustration, and low concept when included in all general classrooms. Some research indicates that special schools may be more appropriate than inclusive settings for students who need more intensive support for their particular needs (de Beco, 2018; Gilmour, 2018; Hornby, 2021). Hornby’s theory of ISE may explain the disadvantage that inclusion may place on SWD. Hornby (2015) proposed that there is

confusion between human rights and moral rights among advocates of full inclusion; someone's human right to a certain option does not necessarily mean that it is an obligation or be morally right for them. Although it may be the right of a SWD to be educated in the general classroom alongside his non-disabled peers, it may not be in his best interest or the best option.

A review of the literature indicated that it is difficult to draw clear conclusions on the impact of inclusion on SWOD; however, inclusion is more often associated with positive (or neutral) cognitive outcomes (Kart & Kart, 2021; Kefallinou et al., 2020). When educated with their peers who have disabilities, SWOD develop less fear and prejudices and develop more positive attitudes toward individuals with disabilities (Kart & Kart, 2021; Krämer, et al., 2021). One study found no detrimental impact on the psychosocial or cognitive outcomes of SWOD in inclusive settings and suggested that parents should not be concerned to send their children to inclusive schools (Krämer et al., 2021). The results of Demirdag's (2017) classroom-based study of 6th graders in an inclusive science class led him to speculate that SWOD improve their conceptual learning regardless of the classroom setting. The results of some studies on the impact on SWOD indicate fewer positive outcomes for SWOD in inclusive classes. Dell'Anna et al. (2021) noted the negative effects on a classroom learning environment with the inclusion of two or more students with emotional and behavioral challenges. Although SWOD may benefit from inclusion when teachers provide more adaptive lessons, they may be negatively impacted if teachers are paying more attention to SWD (Krämer, et al., 2021).

Teachers' Attitudes Toward Inclusion

One of the main barriers to successful inclusion is teacher competence in planning and differentiating instruction for SWD (Kart & Kart, 2021). Some teachers choose not to implement inclusion but instead, continue to operate under the traditional method of merely integrating a

SWD into their classroom without creating an inclusive setting that would allow the SWD to participate in a meaningful way (Sharma, 2018; Sharma & Nuttal, 2016). Teaching to the middle, the average learners in the class, rather than differentiating instruction for a diverse group of learners has been the norm in traditional education, and it is not easily reversible (Valiandes & Neophytou, 2018). Teachers attribute their resistance to inclusion to their lack of skills or knowledge for educating SWD or a lack of resources (Sharma, 2018).

A review of the literature by Van Mieghem et al. (2020) found that teachers' attitudes toward inclusion were more negative than the attitudes of parents and non-disabled peers of SWD. A qualitative survey of teachers in Ireland revealed a common theme of frustration and dissatisfaction with their capacity to meet the complex needs of SWD in their classes (Horan & Merrigan, 2019). Teachers who do not expect to be successful with SWD put forth less effort in preparation and instruction and give up more quickly regardless of whether they know of strategies that may help students if applied (Tschannen-Moran et al., 1998). This finding was supported by the theories of planned behavior and self-efficacy. If a teacher has low self-efficacy, the teacher's motivation will decrease, leading to a lack of intention for applying inclusive strategies (Ajzen, 1985; Yada et al., 2022).

Teachers are considered the key to successful inclusion, but adopting differentiated instructional strategies is difficult for teachers on a day-to-day basis (Valiandes & Neophytou, 2018). Teachers cite the logistical challenges to providing the level of intervention and the focused attention that SWD require (Wilcox, 2020). Teachers reported a lack of resources, time constraints, and heavy curricular responsibilities, yet the major challenge to effective differentiation may be teachers' mentality (Woodcock & Jones, 2020). Even proponents of full inclusion recognize that general education classes are not always perceived to be equipped to

meet the needs of SWD, and the skills of general education teachers are most often noted as a weakness (Connor & Ferri, 2007). One of the barriers to inclusion often cited by school administrators of Christian schools is a lack of trained personnel (Ramirez & Stymeist, 2019). Very few universities offer programs for educators who want to serve students with disabilities in faith-based schools; without the support of higher education, Christian schools have limited resources for training qualified special education teachers (Lane, 2017).

Despite the reported positive benefits of inclusion, several barriers exist to its implementation. An extensive review of the literature by Kart and Kart (2021) and Woodcock and Jones (2020) revealed that teacher self-efficacy for differentiating instruction is one of the greatest challenges to inclusion. This was found to be especially significant in high school classes where the emphasis is on content and the limited amount of class time. Collaboration between general education and special education teachers is rarely intensive in secondary school, perhaps because special education teachers are prepared to teach younger students but are less likely to have adequate knowledge of high school curriculum (Kart & Kart, 2021). Van Mieghem et al. (2022) added that teachers who show resistance to implementing inclusion report feeling incompetent to teach SWD. Their study pointed out the importance of support for teachers who teach in inclusive classrooms, but they acknowledged that additional support for teachers and SWD may not be sufficient for some students with multiple or more severe disabilities.

Negative attitudes of teachers toward inclusion have long been considered a major obstacle to successful inclusion of SWD (Yada et al., 2022). In a meta-analysis of the research on inclusive education, Van Mieghem et al. (2020) found that teachers with less experience in inclusion and training in special education had more negative attitudes toward inclusion. In surveys of their attitudes and self-efficacy for inclusion, general education teachers responded that

they did not feel that they had adequate training or the proper skills to meet the academic and behavioral needs of SWD while also teaching SWOD (Gilmour, 2018; Leifler, 2020). Additionally, teachers reported lack of access to professional development, additional workload, increased preparation time for creating differentiated lessons, and lack of peer and paraprofessional support as barriers to successful inclusion of SWD (Demirdag, 2017; Saloviita, 2019; Valiandes & Neophytou, 2018; Woodcock & Jones, 2020).

A review of the literature by Gilmour (2018) examining the attitudes of general education teachers toward having SWD in their classes revealed that most teachers reported that they were accepting of SWD if the teachers were provided additional support and if the SWD did not display disruptive behaviors. A similar study by Saloviita (2019) conducted in Finland surveyed teachers in primary schools; the results revealed that teachers' attitudes toward SWD were strongly impacted by the specific categories and severity of the disabilities. The teachers in this study also indicated that their attitudes about inclusion were more closely related to their opinions on whether the general education classroom was the best placement for the SWD and less related to their concern about additional workload. The views of the teachers in this study align with the concepts found in the theory of ISE (Hornby, 2015) that recognizes that inclusion should not be conceived as a one-size-fits-all approach to the placement of SWD.

Knauder and Koschmieder (2019) tested the theory of planned behavior (Ajzen, 1991) to measure the impact of teachers' attitudes on their self-efficacy for individualizing and differentiating instructional for SWD. Ajzen's assumption that attitudes affect behavior though intention along with other factors was reproduced in the results of this study, indicating that one's estimation of perceived behavioral control or a teacher's own competence are influential factors for the actual realization of individualized student support in the classroom (Knauder &

Koschmieder, 2019). Changing the attitudes of teachers toward inclusion impacts their self-efficacy for educating SWD in inclusive settings (Krämer et al., 2021; Van Mieghem et al., 2020). Teachers' self-efficacy is associated with student learning outcomes (Cate et al., 2018; Leifler, 2020). Teachers who reported higher levels of self-efficacy for inclusion were more proficient in adjusting instructional strategies and pedagogy to produce higher levels of student outcomes (Woodcock & Jones, 2020). Teachers' competencies for differentiated instructional strategies in inclusive settings must be strengthened to ensure the best possible results for students, and additional support materials should be provided for inclusive classrooms to be effective (Krämer et al., 2021).

Pre-service Training

Pre-service training is learning that is acquired during undergraduate studies for teacher candidates (Hills & Sessoms-Penny, 2021). Given that the attitudes of teachers toward inclusion is strongly correlated to successful inclusion of SWD, it is an important task of teacher education programs to develop and enhance positive attitudes of pre-service teachers (Bohndick et al., 2022; Chambers & Forlin, 2021; Sharma & Nuttal, 2016). Education of teachers is foundational for the continuum of growth in learners. Students experience deeper learning when they are taught by experienced and effective teachers (Hills & Sessoms-Penny, 2021).

The theory of planned behavior proposes that attitudes toward behaviors and perceived behavioral control predict one's intentions to perform certain behaviors (Ajzen, 1991). When applied to teacher behavior, teacher attitude toward inclusive education is considered a prerequisite; this may explain the increasing amount of research that explores pre-service teachers' attitudes toward inclusion (Lautenbach & Heyder, 2019). Sharma et al. (2021) used the theory of planned behavior to hypothesize that the best predictor of teachers' actual use of

inclusive strategies in the classroom was their intention to teach in inclusive classrooms. The results of their study revealed a significant relationship between attitudes and self-efficacy for inclusion; the authors concluded that pre-service teachers would benefit from developing positive attitudes toward inclusive education along with confidence in their own abilities to implement inclusion.

The results of studies that examined the effect of pre-service training on teachers' attitudes towards inclusion have been mixed (Bohndick et al., 2022; Hills & Sessoms-Penny, 2021; Lancaster & Bain, 2020; Lautenbach & Heyder, 2019; Sokal & Sharma, 2022). Some pre-service teachers reported a lack of confidence that including all SWD was possible in their classrooms (Sharma, 2018). A systematic review of teacher-training interventions within universities and their effect on pre-service teachers' attitudes toward inclusion found a significant increase in pre-service teachers' attitudes in seven out of ten studies; however, two studies showed no change (Lautenbach & Heyder, 2019). One problem cited by Savolainen et al. (2020) was that topics related to inclusion are usually addressed only in special education courses or programs. This conclusion is supported by the research of Lautenbach and Heyder (2019) who noted that pre-service teachers who took special education courses had more positive attitudes toward inclusion than pre-service teachers without any special education experience. Savolainen et al. (2020) proposed that changing teacher attitudes toward inclusion can take quite a long time and suggested that it would be beneficial to address inclusion in the pre-service stage of teachers' preparation.

Florian and Camedda (2020) noted in their study that just having taken a college course in special education did not necessarily improve the attitudes and self-efficacy of pre-service teachers for inclusion. Likewise, Sharma et al. (2021) suggested that taking a course in inclusion

is not in itself adequate for preparing teachers to successfully implement inclusion in their future classrooms. Sokal and Sharma (2022) studied the predictors of pre-service teachers' attitudes, efficacy, concerns, and intentions for implementing inclusive education practices. These researchers discovered that students in a face-to-face course to prepare them for inclusion developed enhanced efficacy for inclusion, but less positive attitudes toward inclusion over the duration of the course. Sokal and Sharma (2022) suggested that universities are falling short in preparing general education teachers to lead inclusive classrooms and in improving the attitudes of pre-service teachers toward the philosophy of inclusion in general. One concern regarding the quality of teacher preparation programs is the lack of a coherent vision among the university's faculty (Gottfried, et al., 2019). In the United States, inclusion has been an initiative for more than 40 years, yet general education teachers are still taught to teach "the middle of the road" students rather than differentiate for students who have special needs (Ahrbeck & Felder, 2020). This is an even greater problem for pre-service teachers in Christian universities where there is less access to courses specific to special education or inclusion training (Lane, 2017).

Sharma (2018) proposed that four things must happen to successfully reform a teacher education program. First, pre-service teachers should be taught by a team of university professors along with school educators. A partnership between both would bridge the gap between theory and practice. Second, pre-service teachers should learn evidence-based information that aligns with inclusion philosophy. Third, pre-service teachers should be jointly supported by college faculty as well as school educators during student teaching. School personnel can reach out to college faculty when a student teacher faces difficulty in successfully differentiating in the classroom. Finally, prior to student teaching placement, pre-service teachers should be assessed to determine their readiness to teach in an inclusive classroom. Similarly, Turnbull and Turnbull

(2020) recommended collaboration between pre-service teacher education faculty and school administrators to strengthen the skills of student teachers in inclusive contexts. To develop improved self-efficacy and attitudes toward inclusion, pre-service teachers should complete their field experience in educational environments that support an inclusion philosophy with teachers who are willing to support and mentor them as they encounter difficult circumstances (Sharma, 2018).

The self-efficacy of pre-service teachers can be developed through internships with master teachers where the pre-service teachers can observe and practice instructional strategies (Schunk, 2020). In accordance with the theory of self-efficacy and the findings of recent studies, teachers who gain mastery experience in real classroom environments demonstrate an increase in self-efficacy for inclusion (Bandura, 1997; Yada et al., 2019). The results of the study by Yada et al. (2019) suggested that pre-service teaching programs should provide opportunities to gain mastery experience through internships in order for novice teachers to enter the teaching field with confidence in their ability to implement inclusive education strategies.

In-service Training

Professional development (PD), or in-service training, is a process that begins with the teachers' undergraduate education and continues throughout their entire teaching career (Sancar et al., 2021). Professional development for in-service teachers most often is provided in the schools where they are teaching (Postholm, 2012). Teacher learning takes place when there is a connection between theory, practice, and person (Korthagen, 2017). In a review of 156 articles that studied the effectiveness of PD, Sancar et al. (2021) noted that a sense of unity and cooperation among teachers created a supportive environment that enhanced teachers' PD. Earlier, Postholm (2012) also found that teacher learning was affected by a positive atmosphere

where the school communicated a clear vision and understood the importance of expertise and supportive networks.

Korthagen (2017) analyzed and critiqued traditional and modern approaches of PD for teacher education. His review revealed that the challenge for PD is moving teachers from an intellectual understanding of a concept to actually using it in the classroom; teacher behavior does not necessarily change as a result of a change in cognition. A theoretical review of studies investigating the effectiveness of PD suggested that teachers' actions are closely linked to their thoughts and emotions (Postholm, 2012). This conclusion was supported by the theory of planned behavior, suggesting that teachers' attitudes towards the topics taught in PD courses directly impact their intention to change their instructional strategies (Ajzen, 1985; Lautenbach & Heyder, 2019).

Whether teachers perceive their need for PD depends upon their individual beliefs, social relationships, and their school conditions (Cooc, 2019). A survey of teachers revealed their opinions that most professional development focuses too heavily on the principles of inclusion and too little on the practical application (Woodcock & Woolfson, 2019). Korthagen's (2017) analysis revealed the need for making PD meaningful by incorporating practical examples using video and other pedagogical strategies. He described a more effective approach than traditional methods that begins with the teachers' concerns and experiences rather than a theory and focuses on guided reflection that considers teachers' thoughts, feelings, and motivations. The "onion approach" or "core reflection" model of PD developed by Korthagen (2017) leads teachers toward deeper reflection with the following questions for teachers to consider: What am I dealing with? (environment); What do I do? (behavior); What am I good at? (competencies); What do I believe about the situation? (beliefs); Who am I in my work? (identity); and What inspires me (mission).

Perera et al. (2019) suggested that a "one-size-fits-all" approach to teacher learning is ineffective; administrators should individualize PD to align with teachers' specific self-efficacy configurations. Tailoring PD based on self-efficacy profiles of teachers is more apt to be effective than large-scale, statutory training. Eun (2019) framed his study of professional development in Bandura's social cognitive theory. He suggested that this theory supports the practice of giving teachers choices in their PD. Providing teachers opportunities to choose areas for their own improvement goals enhances teachers' self-efficacy; enhancing teachers' efficacy impacts instructional practices, which in turn improves student learning. In their examination of factors that predict teacher self-efficacy, Perera et al. (2019) relied on data collected from an earlier survey of 3,735 teachers working in 247 Australian schools. The results revealed evidence of the positive effects of PD and the benefits of mentoring on teachers' self-efficacy beliefs. The quality of teachers' PD is critical because it determines the quality of students' educational outcomes (Sancar et al., 2021). Continuing PD for in-service teachers can equip teachers with new strategies for fostering the learning of students with varying abilities (Schunk, 2020). Hills and Sessoms-Penny (2021) concluded that the deciding factor for determining whether a teacher would be successful in creating an effective inclusive environment for SWD was their pre- and in-service development preparation for teaching in a classroom with students of mixed abilities.

Teaching Experience

Teaching experience relates to the number of years that an individual has worked as a classroom teacher (Burroughs et al., 2019). According to a study of 154 teachers, Berger et al. (2018) found that years of teaching experience correlated to teachers' self-efficacy for student engagement and classroom management and suggested that teachers' confidence in their abilities increases with experience. Podolsky et al. (2019) reviewed 30 studies that analyzed the effect of

teaching experience on student outcomes. The authors found that as teachers gain experience, student achievement on standardized tests increases. Eighteen out of the 30 studies analyzed longitudinal data with teacher fixed effects. All 18 studies found a significant positive association between teaching experience and teacher effectiveness.

The findings of Kiel et al. (2020) and Emmers et al. (2020) revealed that teachers' practical experience with teaching SWD predicted self-efficacy; the authors concluded that future teachers would benefit from practical experience with SWD early in their teaching careers. Framed by Bandura's theory of self-efficacy, results of a study by Subban et al., (2021) revealed that teachers with 20 or more years' experience in education had higher mean scores for self-efficacy of inclusion than teachers with less than five years. The authors suggested that as teachers gain experience, their confidence in their ability to include SWD strengthens. Similarly, Savolainen et al. (2020) explored the impact of teachers' years of experience and found a relationship between teachers' attitudes toward inclusion and their self-efficacy. Bandura (1997) attributes this growth in self-efficacy to "mastery experiences." This could be credited to teachers' acquiring greater proficiency over time and increasing their understanding for creating inclusive environments for their students (Savolainen et al., 2020).

On the other hand, the results of a study by Smith and Larwin (2021) which supported the findings of an earlier study by MacFarlane and Woolfson (2013), indicated that teachers with more years' experience had more negative attitudes toward inclusion than their younger, less experienced peers. One possible explanation given by Smith and Larwin (2021) was that teachers with fewer years' experience had been educated in undergraduate and graduate courses that promoted inclusion and included more exposure to inclusive practices. A review of the literature on teacher effectiveness and student outcomes drew mixed conclusions on the association

between teacher experience and student outcomes. They found more support for an association between teachers' instructional pedagogy and student achievement (Burroughs et al., 2019).

Inclusive Teaching Practices

The terms inclusive teaching practices and differentiated instruction are used interchangeably by many authors (Schwab & Alnahdi, 2020). Carol Tomlinson (1995), one of the most prolific writers on the topic of differentiation and inclusive instruction, described differentiation as instruction that teachers plan proactively to be robust enough to reach a range of learner needs rather than a singular focus for everyone while also reactively adjusting plans when it becomes apparent that the lesson is not effective for some of the learners. Tomlinson goes on to emphasize three curricular elements to differentiation: (a) content – what students learn through input, (b) process – how students make sense of information and ideas, and (c) product – how students demonstrate their learning. According to Tomlinson, "In a differentiated classroom, the teacher proactively plans and carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest and learning needs" (p. 7).

Inclusive instruction requires teachers to develop advanced pedagogical skills in addition to basic strategies for classroom management and general teaching practices (Deunk et al., 2018). The willingness of teachers to develop advanced strategies can be explained by the theories of planned behavior (Ajzen, 1991) and self-efficacy (Bandura, 1977). Several researchers have noted the association between teachers' attitudes and self-efficacy beliefs toward inclusion and their intentional use of inclusive teaching strategies in the classroom (Schwab & Alnahdi, 2020). The study by Schwab and Alnahdi (2020) revealed that teachers' self-efficacy beliefs had a significant predictive effect on their use of inclusive teaching practices, but teachers' attitudes toward

inclusive education did not. A similar study using a cross-lagged panel design with several measurement points showed that the self-efficacy of teachers for inclusive practices was positively related to teachers' attitudes toward inclusive education (Savolainen et al., 2020). The results also indicated that there was no causal effect between teachers' attitudes and their self-efficacy; these results were similar for both novice teachers (less than five years teaching experience) and expert teachers (more than five years' experience). These studies indicate that teachers' attitudes toward inclusion predict their self-efficacy for inclusive instruction, which in turn predicts their actual use of inclusive teaching practices (Savolainen et al., 2020; Schwab & Alnahdi, 2020).

Weiss (2018) claimed that students with learning disabilities can learn when teachers combine strategic instruction with direct instruction models and that interventions have a significant impact on the learning of SWD. According to Weiss (2018), effective differentiated instruction for diverse learners requires that teachers understand the specific needs of the SWD in their classrooms; students' characteristics, skills, motivation, and current levels of performance should be understood before determining the appropriate accommodations and modifications to apply. Tomlinson (2003) provides a research-based perspective that students will engage more fully and learn more robustly when teachers prepare lessons that incorporate instructional strategies that address their differences and similarities. The hallmarks of differentiation, according to Tomlinson, are the following:

- A strong link between assessment and instruction.
- Clearly communicated learning goals.
- Flexible grouping of students.
- Flexible use of time, space, and materials.

- Student involvement in classroom management and goal formulation.
- Emphasis on individual growth.
- Students are ensured “respectful” work.
- Differentiation is viewed as a “way up” and not as a “way out.”
- The teacher partners with other specialists.
- Instruction is not reactive but is proactively planned.

Several researchers have addressed challenges faced by teachers with differentiating instruction for SWD (Joyce et al., 2020; Schwab & Alnahdi, 2020; Simón et al., 2021; Weiss, 2018). Simón et al. (2021) noted in their observations of several schools that even teachers who stated that they valued differences among their students and had created an inclusive culture in their classrooms experienced frustration with the expectation to differentiate. Tensions arose in relation to student differences and curriculum management; teachers related their frustration when “low” learners in their classrooms affected the speed with which the teacher could move through the curriculum. Joyce et al. (2020) noted a similar lack of differentiation proficiency among teachers in their analysis of 35 unique classroom artifacts (assignments and assessments) for the type of accommodation/modification used. The results indicated that SWD in the study were assigned tasks that were substantially different tasks from their non-disabled peers and were given fewer opportunities to access challenging assignments.

Collaboration between Special Educators and General Educators

Long-lasting benefits for students and teachers are possible when teachers are provided time, space, and a school culture that encourages meaningful collaboration (Tichenor & Tichenor, 2018). Collaboration involves two or more individuals, autonomous and voluntary, who engage together in processes or interactions toward a common goal or mutual benefit (Newell & Bain,

2018). Collaboration is a way for professionals to work together to design and deliver a range of services for SWD and to collectively solve problems (Friend & Barron, 2019). Sannen et al. (2021) studied the connection of teacher collaboration to inclusive practices by investigating the relationship of teachers' collective efficacy for inclusion and a dense network of peers giving support. The results of the study by Sannen et al. (2021) revealed a significant relationship between a dense network of supportive peers and high collective efficacy for addressing the educational challenges of implementing inclusive practices. The theory of self-efficacy contributes to an understanding of collective efficacy as the result of three factors which determine teachers' collective efficacy: mastery experience (experiences of the group's past failures and successes), vicarious experience (teachers' knowledge of other teachers' past successes and failures), and social persuasion (feedback about past group members' failures and successes) (Bandura, 1997). Meyer et al. (2020) describe collective efficacy as an aggregate set of shared views on a group's potential, which when referring to schools, can be described as a motivational characteristic that results from teachers' subjective perceptions of their effectiveness for using their resources to manage challenging situations and create successful learning environments.

Collaboration among general and special educators is a means of sharing their diverse areas of training and expertise (Joyce et al., 2020). Collaboration among teachers is assumed to be pivotal in the success of inclusive education for SWD; teachers are considered central agents in implementing inclusion, yet one single teacher, working alone, is not able to meet all the needs of SWD (Sannen et al., 2021). The general education teachers who participated in the Joyce et al. (2020) study struggled with differentiating for SWD while simultaneously challenging students academically. In an examination of how general and special education teachers work together,

Gomez-Najarro (2020) collected data from observations of response to intervention (RTI) meetings as well as interviews with teachers and other practitioners involved in implementing RTI. The researcher found that although general and special education teachers recognized the benefits of collaboration, it was inhibited by resource limitations. The school being examined had only two or three special education teachers for a population of 600 students. The findings of Sannen et al. (2021) suggested that when their concerns and questions related to differentiation were discussed with the school team, general education teachers in inclusive classrooms were more flexible in adapting their classroom methods. However, special educators in the Gomez-Najarro (2020) study described the challenges of having adequate time for meaningful collaboration with general education teachers when the special educators were required to provide a precise number of instructional minutes each day/week for more than 40 students on their caseloads as prescribed in the students' IEPs. General education teachers in the Joyce et al. (2020) study described their lack of time to truly differentiate, indicating that general education teachers would benefit from additional support from special education teachers who have had specialized training in individualizing and differentiating instruction.

Managing Disruptive Behavior

Disruptive behavior is defined as deliberate verbal or physical displays of improper behavior that are intended to provoke others or call attention to self; inappropriate use of classroom items; or actions intended to annoy, pester, or mock others (Caldarella et al., 2021). Students who have high rates of disruptive behavior may be identified as eligible for special services; emotional and behavioral disorder is one of the categories for which a student may receive special education, support, and legal provisions (Caldarella et al., 2021; Mitchell, et al., 2019). Students with challenging behaviors require highly specialized support, interventions, and

instruction to improve their social skills, behavior, and academic outcomes (Mitchell et al., 2019). General education teachers who have students with disruptive behaviors or students who have been identified with EBD need collaboration with special educators to identify successful strategies for managing disruptive behaviors (Harrison et al., 2019).

The placement of students with emotional and behavioral disorders is complex and disputed among researchers (Harrison et al., 2019). A scoping review of the research in the United States by Harrison et al. (2019) revealed that some educators contend that students with behavioral challenges would benefit from inclusion if given appropriate differentiated instruction and curriculum adaptions. However, others assert that academic and social development is not achievable if inclusion in general classrooms is the only option. The latter view fits within the framework of the theory of ISE (Hornby, 2015) that recommends that students be placed in settings most appropriate for their individual challenges; those options are not exclusive to general education classrooms but include separate classrooms for SWD on the same school campus as SWOD as well as separate schools for SWD with more specialized academic or behavioral challenges.

Improving the behavioral and academic outcomes of students with disruptive behaviors has been the subject of several studies (Caldarella et al., 2020, 2021; Harrison et al., 2019; McKenna et al., 2022; Mitchell et al., 2019). Caldarella et al. (2020) collected data from 151 elementary schools in the United States over a period of three years. During that period, researchers trained teachers to improve challenging behavior by praising and rewarding positive behaviors more often than using reprimands for off-task or disruptive behaviors. Their observations revealed that when teachers used a praise-to-reprimand ratio of 3:1 or 4:1, behaviors dramatically improved. The researchers in this study suggested that the ratio of praise-to-

reprimands be increased, but that other classroom management strategies also be employed, such as teaching clear classroom expectations, increasing opportunities for student participation, and using a continuum of strategies for acknowledging appropriate and inappropriate behaviors.

In addition to their recommendations for further research on the inclusion of students with EBD and disruptive behaviors in the general classroom, Harrison et al. (2019) suggested that teacher-training models should be explored to determine the best strategies for training teachers in inclusion strategies. Additionally, they recommended that administrators provide resources and supports to teachers who provide inclusion for SWD. Yell (2019) added that school personnel should take steps to ensure that students' IEPs are reasonably written to enable SWD to make progress on both their academic and their behavioral goals. The recommendations of McKenna et al. (2022) included their suggestion to study the interventions of general education classroom teachers that successfully manage disruptive behaviors to identify evidence-based practices for the inclusion of this student population.

Christian Education in America

Between 1962 and 1963, the United States Supreme Court declared much religious expression in public schools unconstitutional; during these two years, prayer and moral education was removed from public schools (Facts and case summary - Engel v. Vitale, n.d.). According to Jeynes (2011), the removal of prayer and moral teaching from public schools quickly became associated with a moral and religious decline in the entire nation. Prior to the 1960s, public school teachers ranked the following as the seven most common student discipline issues: chewing gum, talking out of turn, making noise, running in the halls, getting out of line, dress code infractions, and not throwing paper into the trashcan. Contemporary teachers, when questioned with the same

survey, listed the following: drug and alcohol abuse, pregnancy, suicide, rape, assault, and robbery.

Along with a spiritual and moral decline, Jeynes (2011) also documented the decline of academic achievement following the Supreme Court's decisions to remove prayer and Bible reading in the public schools. Scores on the Scholastic Achievement Aptitude test fell consistently from 1963 to 1980 along with scores on almost every other major standardized assessment of academic achievement. The Stanford Achievement Test reported declines of one to one-and-a-half years in mathematics outcomes for middle school students. During this same period, the College Board reported that scores in the 1970s declined by approximately 110 points. Additionally, the illiteracy rates in the United States grew from ½ to 1%, the lowest in the world, to 3%, one of the highest rates of illiteracy among industrialized nations.

Advocates of Christian education correlate the growth of the Christian school movement to the moral and academic decline in public schools following the removal of prayer and Bible reading (Jeynes, 2011; Swezey, 2012). From their perspectives, advocates of Christian schools believe that public schools are hostile to conservative Christian values (Blosser, 2019). They identify the establishment of Christian schools for their children as one of the primary reasons for the Pilgrims and Puritans' coming to America (Kienel, 1998). Schindler and Pyle (1979) define a Christian school as a school "that is first of all centered in the authority of the Scriptures and the Person of Jesus Christ. Every subject is shot through with the wonder of God's power and love" (p. 29).

Critics of the Christian school movement attribute the rise in the numbers of Christian schools and the growth in student enrollment in private schools in America to the Supreme Court's 1954 decision in Brown v. Board of Education which outlawed segregation in public

schools and the 1964 Civil Rights Act which prohibited segregation in institutions that accept federal funding (Blosser, 2019; Meyers & Nash, 2006). Meyers and Nash (2006) made the claim that the growth of private education in America correlates with the rate of desegregation in public schools following the 1964 Civil Rights Act. The data for this article came primarily from statistics in North Carolina. According to the authors, the number of students in North Carolina who attended private schools doubled at the beginning of the 1965 school year. Those with this opinion began to call Christian and private schools "segregation academies" and "whites only" schools, especially in the South (Blosser, 2019).

Special Education in Christian Schools

With the passage of IDEA in 1975, the United States mandated that SWD be educated in public schools in the LRE for their special needs (Individuals with Disabilities Education Act, 1975). Since then, Christian schools have also accommodated SWD although they are not required to provide special education services (Lane, et al., 2019). Christian schools that do implement inclusion often cite their denominational traditions and biblical references that recognize the value of all people as members of the body of Christ and the responsibility to care for each individual as bearers of the image of Christ (Strater, 2021). David Anderson (2006) uses Christian principles to encourage educators to create positive, caring classroom communities that value and promote equality while also celebrating and accommodating the differences of students with disabilities. Anderson refers to Jesus' focus on including individuals who were traditionally excluded as a motivation for Christian schools to embrace the inclusion of SWD.

Parental interest in resource programs for students with special needs in Christian schools is growing (Lane et al., 2019). Determining the actual number of Christian schools who admit children with disabilities is difficult because this information is not collected by the U. S.

Department of Education or accreditation boards (Bachrach, 2021). Christian schools who do enroll SWD usually limit admission to only students with ADHD, specific learning disabilities, and mild disabilities. Those with intellectual disabilities or challenging behavioral disorders are generally not admitted (Bachrach, 2021).

As Christian schools attempt to meet the needs of SWD, they must face the challenge of funding extra services; this is particularly difficult because most Christian schools serve students from middle- and low-income families who have limited resources for paying additional costs for resource programs (Russo et al., 2011). Many administrators of Christian schools describe limited financial resources for providing specialized services (Boehm, 2021). Christian schools who develop resource programs and provide services do so without receiving federal funding aid or training (Lane et al., 2019). In her examination of special education staffing and service models in Christian schools, Lane (2017) found that Christian schools also face limited personnel resources; very few universities offer pre-service programs for educators who want to serve students with disabilities in faith-based schools. Consequently, teachers must rely on programs that are geared toward public school settings, and Christian schools must create their own policies, procedures, and structures for meeting the needs of children with special needs. Little formal data exists on the prevalence, services, and outcomes of existing inclusive Christian schools (Bachrach, 2021; Lane, 2017). Lane et al. (2019) concluded that their study was the first to examine the pedagogical approaches related to creating an environment of inclusion and hospitality in Christian schools.

Summary

A review of the literature indicated that there is not a common agreement on the definition, methods, or impact of inclusive education. Controversy surrounds the competing views

of full inclusion of SWD in all general education classrooms versus inclusive special education (ISE) which considers and accommodates the individual needs of students for placement and instructional options in both general and special classes. Regardless of their interpretation of the term, educators and policy makers agree that teachers' attitudes and self-efficacy are the key to successful integration of SWD in regular classrooms. Pre-service and in-service training, as well as years of experience are considered important factors for increasing teachers' self-efficacy and improving attitudes. A limited number of studies that examine admittance and inclusion policies of private Christian schools exists, but this researcher found no studies that explored the self-efficacy of Christian school teachers toward inclusion.

CHAPTER THREE: METHODS

Overview

This chapter will introduce the research methodology used in this quantitative, correlational study to investigate a relationship between teacher self-efficacy and a linear combination of predictive variables among general education teachers in Christian schools. This chapter begins by introducing the design of the study, including full definitions of all variables. The research questions and null hypotheses follow. The participants and setting, instrumentation, procedures, and data analysis plans are presented.

Design

The current study was non-experimental. Warner (2021) described non-experimental design (also called a correlational study) as a measure of two or more variables that are projected to be related; the researcher does not introduce an intervention or treatment. The current study proposed to analyze the relationship between four criterion variables expressed as continuous scores, and three independent (predictor) variables that were hypothesized to be linear. Gall et al. (2007) described a correlational design as useful for studying problems in education because they allow researchers to analyze the relationships among many variables in one study. The degree of the relationship between variables is referred to as correlation; correlational research is ex-post factor research that examines relationships between quantifiable variables as they occur in natural settings (Wiersma & Jurs, 2009). The basic research design of a correlation study begins with a problem to be investigated, followed by a selection of reasonably homogeneous participants from a population who are most pertinent to the problem being studied (Gall et al., 2007).

The survey design for data collection in this study was a cross-sectional design. Cross-sectional design involves collecting data at only one point in time from a sample of participants;

participants are not administered pre- and post-tests (Wiersma & Jurs, 2009). Cross-sectional designs have an advantage over longitudinal research due to the extended time period for data collection in longitudinal research. However, cross-sectional designs are limited to data that are obtained from participants at one point and does not account for the effect of changes in the participants over time (Gall et al., 2007). A limitation of correlation design is that researchers should not consider a causal relationship or draw conclusions about relationships between variables (Wiersma & Jurs, 2009). Researchers who use a correlation design must exercise caution and not confuse prediction with explanation (Gall et al., 2007). A further limitation is that correlation studies tend to have less control than experimental studies. The interpretation of non-experimental results can be less straightforward and potentially more susceptible to ambiguity (Wiersma & Jurs, 2009).

The purpose of the current study was to determine how accurately self-efficacy for inclusion of students with special needs can be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools. Four criterion variables were measured in this study. The first variable was general education teachers' aggregate self-efficacy for teaching in an inclusive classroom. According to Bandura (1977), self-efficacy is a person's estimate that a behavior will lead to expected outcomes; and teacher self-efficacy is described as teachers' beliefs that are related to the efforts they invest in instruction, goals they set, and their persistence in the face of setbacks (Tschannen-Moran & Hoy, 2007). The next criterion variable was teacher efficacy for inclusive instruction. Inclusive instruction is defined by Ainscow (2005) as actions which attempt to overcome barriers to the learning and participation of all students. Inclusive pedagogy refers to

any strategy that teachers use to ensure that SWD can learn in the general education classroom (Finkelstein et al., 2021). The third criterion variable was teacher efficacy for collaboration. In a review of the literature on topics related to teacher collaboration, Newell and Bain (2018) found that definitions of collaboration share key elements: two or more individuals; autonomous and voluntary; and engaged together in processes or interactions toward a common goal or mutual benefit. Their research revealed that collaboration extends beyond a predisposition to work with other teachers but involves a complex matrix of diverse and interdependent factors. The final variable was teacher efficacy for managing disruptive behavior. This variable highlighted a teacher's ability to control student behaviors that interfere with the participation of other students or productive classroom activities. Disruptive behaviors are defined as deliberate verbal or physical displays of improper behavior that are intended to provoke others or call attention to self; inappropriate use of classroom items; or actions intended to annoy, pester, or mock others (Caldarella et al., 2021).

Three predictor variables were used in this study. The first variable was pre-service training. This variable was defined as learning that is acquired during undergraduate or graduate studies for teacher candidates (Hills & Sessoms-Penny, 2021). In-service professional development is training that continues throughout teachers' entire teaching careers (Sancar et al., 2021); professional development for in-service teachers is usually provided in the schools where they are currently teaching (Postholm, 2012). Teaching experience refers to the number of years a teacher has been employed as a classroom teacher (Broughman et al., 2019).

Research Questions

Four research questions were developed for this study:

RQ1: How accurately can aggregate self-efficacy for inclusion of students with special needs be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ2: How accurately can teacher efficacy for using inclusive instruction be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ3: How accurately can teacher efficacy for collaboration be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ4: How accurately can teacher efficacy with managing disruptive behaviors be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

Hypotheses

The null hypotheses for this study are the following:

$H_0$1: There will be no significant predictive relationship between the criterion variable (aggregate self-efficacy for inclusion of students with special needs) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

$H_0$2: There will be no significant predictive relationship between the criterion variable (teacher efficacy for inclusive instruction) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

$H_0$3: There will be no significant predictive relationship between the criterion variable (teacher efficacy for collaboration) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

$H_0$4: There will be no significant predictive relationship between the criterion variable (teacher efficacy for managing disruptive behaviors) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

Participants and Setting

Participants in this study consisted of a convenience sample of 139 teachers. The researcher recruited teachers from conservative Christian schools in North Carolina whose schools were found on the North Carolina directory of non-public schools. Teachers who teach general education classes on the kindergarten through 12th grade levels were asked to volunteer to complete an online survey of their self-efficacy for educating SWD in a general education classroom. North Carolina was selected because of the researcher's location and the state's regional similarity to surrounding states.

Population

The participants for the study were drawn from a convenience sample of Christian school teachers providing core academic instruction in private Christian schools located in the state of North Carolina during the fall semester of the 2022-2023 school year. The sample population was identified from the North Carolina directory of non-public schools – Conventional schools edition (2021). The North Carolina Division of Non-Public Education reported a total of 783 private schools operating in the 2020-2021 school year; 506 of those schools are considered "religious" schools which represent almost 65% of all private schools in North Carolina.

The United States Department of Education classifies private schools into three major categories: (1) Catholic, (2) nonsectarian, and (3) other religious (Broughman et al., 2021). Catholic schools are categorized by governance (Parochial, Diocesan, and private). Nonsectarian schools do not have any religious purpose, so they are categorized by special emphasis or program. "Other religious schools" are faith-based but are not Catholic. These schools are sub-categorized as (1) conservative Christian, (2) other affiliated, and (3) unaffiliated. To be categorized as conservative Christian, schools would have reported membership in at least one of four associations: Accelerated Christian Education (ACE), American Association of Christian Schools (AACS), Association of Christian Schools International (ASCI), or the Oral Roberts University Education Fellowship (ORUef) (Broughman et al., 2021).

The participants for this study were selected from schools in North Carolina most closely described as "conservative Christian." North Carolina has only two designations for non-public schools: independent and religious (*North Carolina directory of non-public schools – Conventional schools edition,* 2021). To determine which schools on the North Carolina list of non-public schools would be considered "conservative Christian" by the standards of the US Department of Education, the researcher conducted an internet search of the four associations that

the US Department of Education uses to classify the schools. A search of each association's website revealed that 200 schools in North Carolina are member schools of either AACS (70), ACSI (95), A23CE (34), and ORUef (1).

Participants

For this study, the number of participants sampled was 139, which exceeds the required minimum when assuming a medium effect size. According to Gall et al. (2007), 66 is the required minimum for a multiple regression analysis when assuming a medium effect with a statistical power of .7 at the .05 alpha level. The sample came from Christian schools in the state of North Carolina that were categorized as "conservative Christian." Participants in this study were limited to general education teachers who were teaching at the elementary, middle, or secondary level. The sample consisted of 36 males and 103 females.

Setting

The survey was available via an online link to a Google Form and took approximately 20 minutes for participants to complete and return to the researcher electronically. Participants from the selected schools were volunteers who agreed to provide demographic information and rate their perceived self-efficacy for inclusion of SWD in their classrooms. North Carolina was chosen for the setting of this study because of the researcher's location and its regional similarity to other southern states (United States Census Bureau, 2021). The southern region of the United States has the largest percentage (35%) of private schools compared to the Midwest (23%), the Northeast (22%) and the West (20%) (Broughman et al., 2021). According to the North Carolina directory of non-public schools (2021), North Carolina has a total of 506 religious schools out of the total number of 783 private schools.

Instrumentation

This study investigated a correlational predictive relationship between the criterion variables (aggregate self-efficacy for inclusion of students with special needs; teacher efficacy for using inclusive instruction; teacher efficacy for collaboration; teacher efficacy with managing disruptive behaviors) and the predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience). The instrument used to measure self-efficacy was the Teacher Efficacy for Inclusive Practices (TEIP), developed by Sharma et al. (2012). See Appendix A for permission to use the instrument, Appendix B for permission to publish the instrument, and Appendix C for the survey questions. Additional demographic questions including questions used as predictor variables were added to the survey. Demographic questions provide essential information to allow the researcher to accurately describe the sample and make sense of the data (Allen, 2017).

The Teacher Efficacy for Inclusive Practices

The purpose of the Teacher Efficacy for Inclusive Practices is to measure teachers' perceived efficacy to teach in inclusive classrooms. Teachers' perceived efficacy influences their judgments about instructional strategies to enhance student learning and the kinds of environment they create to enhance student learning (Bandura, 1997). The authors of the TEIP recognized a need for a holistic scale to address the inclusion context of teacher efficacy for using their skills to teach all children, including SWD (Sharma et al., 2012). The instrument focuses on teachers' abilities to include all learners with inclusive strategies rather than narrowly focusing on individual disability categories. The TEIP is an internationally recognized instrument for measuring teacher self-efficacy for teaching in inclusive classes and was chosen for its previous use in numerous studies around the world (Horan & Merrigan, 2019; Savolainen et al., 2020;

Tumkaya & Miller, 2020; Yada et al., 2019). The TEIP was originally written in English, but it has been translated into Greek, Spanish, German, Finnish, Japanese, etc. for use internationally as well as in the United States (Alsarawi & Sukonthaman, 2021; Avramidis et al., 2019; Kettunen & Prokkola, 2022; Merz-Atalik et al., 2016; Yada et al., 2019). One of the authors' stated purposes for developing the TEIP was for schools who are concerned about not being able to effectively include SWD. School leaders can use the results of this instrument to create targeted professional development for addressing areas where teachers lack competence (Horan & Merrigan, 2019; Sharma et al., 2012).

The instrument uses rating scales to collect data regarding teachers' self-efficacy for inclusion of SWD. The entire instrument is composed of 18 questions related to teachers' self-efficacy for inclusion of SWD. Questions are subdivided into three factors with each factor consisting of six questions. Respondents choose their answers on a 6-point Likert scale that ranges from Strongly Agree to Strongly Disagree. Responses are as follows: Strongly Agree = 6, Agree = 5, Agree Somewhat = 4, Disagree Somewhat = 3, Disagree = 2, and Strongly Disagree = 1. The values of all the scores are then summed, ranging from 18 to 108 for an aggregate score of self-efficacy. The values of each of the three factors are summed and range from 6 to 36. Higher scores indicate higher perceived teacher self-efficacy for teaching in inclusive classrooms. The criterion variables are treated as ordered categorical variables (Sharma et al., 2012).

The reliability of the instrument was tested internationally with teachers from Canada, Australia, Hong Kong, and India with a purposeful sample of 609 pre-service teachers; Cronbach's alpha coefficient values for the total scale were 0.87 (Canada), 0.91 (Australia), 0.89 (Hong Kong), and 0.84 (India). The TEIP measured three factors: teacher efficacy for inclusive instruction (Factor 1); teacher efficacy for collaboration (Factor 2); and teacher efficacy for

managing disruptive behaviors (Factor 3). The alpha coefficients for the three factors were, respectively, 0.93, 0.85, and 0.85 (Sharma et al., 2012).

Content validity was established with a Delphi survey conducted by an expert panel of university faculty who work in special education and educational psychology. Panel experts were recruited from Canada, Australia, Hong Kong, and India. Participants were asked to comment on the usefulness of each item for measuring teacher self-efficacy and to report on the clarity of the items and instructions. The panel rated each question on a scale from 1 (does not measure efficacy to implement inclusion) to 5 (measures efficacy to implement inclusion). Six of the original questions on the instrument were deleted because they were rated less than two; slight changes were made to other questions. Minor revisions were made after the first review of the panel, and in the second review, the panel finalized all items and supported the validity of the instrument.

The authors of the instrument conducted an exploratory factor analysis on the original 26 items to determine the construct of the scale. The sample size of 609 was considered sufficient for factor analysis. Scree plot analyses and examination of eigenvalues were employed to determine the number of meaningful factors. Factor one had an eigenvalue of 9.20; factor two was 3.51; and factor three was 1.28. Factors four and five were 0.919 and 0.644 respectively, so they were eliminated. A principal component analysis with varimax rotation was used to explore the factor structure. Items were included in a factor if the item related in concept to the other items in the scale and if their factor coefficient loading exceeded 0.40. Items that loaded on more than one factor were eliminated. The authors deleted eight items at this stage. Following this analysis, factor analysis was re-run on the 18-item scale. The percentage of variance for factor 1 (efficacy to use inclusive education) was 35.40; factor 2 (efficacy in collaboration) was 13.48; and factor 3 (efficacy for managing disruptive behaviors) was 4.91. The three factors that remain in the scale

accounted for 64.5% of the explained variance (Sharma et al., 2012).

This instrument was an appropriate scale for use in this current study to measure Christian school teachers' self-efficacy for incorporating inclusive strategies in their classrooms. Although the instrument was constructed and tested in countries with ties to the British Commonwealth, the survey has been used in the United States for measuring the self-efficacy for inclusion of teachers in American schools (Alsarawi & Sukonthaman, 2021; Merz-Atalik et al., 2016). The nature of the items on the TEIP capture the three areas of skills that teachers in all schools (public, private, or Christian) need to have to effectively create inclusive environments for SWD: knowledge of content and pedagogy, the ability to work collaboratively with parents and colleagues, and effective strategies for managing classroom behaviors and environment (Sharma et al., 2012). Scores from the three factors were summed up together for an aggregate score and separately by factors for the criterion variables in this study.

The primary author of the instrument is Dr. Umesh Sharma. An email was sent to Dr. Sharma to request permission to use the TEIP in this study. The researcher obtained permission from the author of the TEIP to use the survey instrument (See Appendix A). Dr. Sharma also granted permission to publish the survey questions in the study (See Appendix B). See Appendix C for the TEIP questions.

Researcher Prepared Survey Questions

Questions that ask respondents for demographic information and predictor variables were included on the survey as selected response items with two or more options. Teachers were asked to report their pre-service training by answering the question, "Have you ever had any college-based pre-service courses that addressed special education needs of students?" Teachers were asked a similar question to report their in-service training by answering the question, "Have you

ever had any school-based training or professional development courses (including graduate level courses) that addressed special education needs of students?" Participants were directed to respond with "yes" or "no" for each question. Participants were asked to provide the number of years they had worked as a general education teacher.

According to Wiersma and Jurs (2009), collecting background or demographic information about respondents is important because it identifies individuals in terms of classifying the variables for analysis. Background information contributes to the researchers' understanding of the participants and helps effectively categorize and analyze the collected data (Allen, 2017). The survey collected information from participants about age, gender, and grade levels taught (elementary, middle, high, or a combination) and whether they had ever taught a student with any of the disabilities identified and defined by IDEA: specific learning disability, other health impairment, autism spectrum disorder, emotional disturbance, speech or language impairment, visual impairment including blindness, deafness, hearing impairment, deaf-blindness, orthopedic impairment, intellectual disability, traumatic brain injury, multiple disabilities (Individuals with disabilities education act, 1975). Based on the researcher's 20 years of experience in Christian education, findings were that many Christian school teachers are unfamiliar with the 13 categories of disabilities, and especially other-health impaired (OHI). For this reason, the researcher included an explanation of OHI to include attention deficit hyperactive disorder (ADHD) and attention deficit disorder (ADD). The entire survey was estimated to take each participant approximately 20 minutes to complete.

Procedures

The researcher submitted a formal request to the Liberty University IRB for approval to begin collecting data. See Appendix G for IRB approval. The researcher initiated the study by

emailing the administrators of each Christian school in North Carolina associated with at least one of the following four associations: AACS, ACSI, ACE, or ORUef. The email to administrators introduced the study, purpose of the study, explanation of confidentiality measures, and selection criteria. It included the researcher's contact information and educational information (Appendix D). If the administrator agreed to participate in the study, he or she was asked to forward an emailed invitation to individual teachers in the participating school (Appendix E). Key elements included in the invitation were the following: a clear description of the study, the purpose of the study, information about the researcher, how long it would take to complete the survey (20 minutes), when responses were due (within four weeks of first contact), how results would be used, and measures for ensuring anonymity of responses. A hyperlink was included in the body of the email. The link took the respondents directly to the survey.

The first item on the survey was the Teacher Consent Form (Appendix F). Teachers were asked to read an introduction to the survey and detailed information on how to complete the survey and indicate their consent before proceeding to the survey. They were presented with the option to continue the survey or decline. If they declined, they were exited from the survey to a page that thanked them for their time and consideration. If they chose the option to participate in the study, they proceeded through the survey to completion. Participants had the option to skip questions and were allowed to go back and change responses. Participants were able to access the survey for four weeks.

Data from completed surveys were transferred to a Microsoft Excel spreadsheet before being loaded into Statistical Package for the Social Science® (SPSS) software. Responses from the TEIP were scored as directed by the authors. At all stages of data collection, information that could identify the participants was protected. All entries were identified by a unique identifying

number; no names were collected from the participants. Data was stored securely on a password-protected computer and password-protected external drive. Only the researcher has access to records. The data will be retained for a period of five years after the completion of this research study.

Data Analysis

Multiple regression was used to analyze three predictor variables and four criterion variables; therefore, the Bonferroni procedure was applied to limit risk for a Type I error. Warner (2021) described the Bonferroni approach as the simplest but most conservative approach for controlling for an inflated risk for Type I errors. The alpha threshold for rejecting each null hypothesis in this study was 0.0125 = .05/4. The TEIP instrument was scored following TEIP prescribed procedures to obtain an overall score indicating teacher efficacy for inclusion. Each of the three subfactors in the TEIP was scored separately to obtain scores on the remaining criterion variables (efficacy for inclusive instruction, efficacy for collaboration, and efficacy for managing disruptive behaviors). TEIP values and demographic information were entered into SPSS software for analysis. Data for criterion variables came from a 6-item Likert scale but were treated as continuous variables. Years of experience was treated as a continuous variable; pre-service training in special education and in-service professional development on topics related to special education were coded into categories with dummy variables which is necessary in most applications of regression analysis; a dummy variable is a variable that takes on a numerical value to code groups in regression analysis (Canela et al., 2019). Teachers provided data on their pre-service and in-service training as “yes” or “no” responses (0 = yes; 1 = no). Data from the surveys were collected via Google Forms, sorted, and visually inspected for errors, inconsistencies, and omissions.

A multiple regression was run to assess the comparative strength of relationship of each criterion variable (teachers' aggregate self-efficacy for inclusion of students with special, teacher efficacy for using inclusive instruction, teacher efficacy for collaboration), and the predictor variables (pre-service training in special education, in-service professional development on topics related to special education, and years of teaching experience). The multiple regression requires that three assumptions be met: no unusual combinations of variables (bivariate outliers), normal distribution across variables (multivariate normal distribution), and non-multicollinearity among the predictor variables. Scatter plots were run between the one continuous predictor variable (years of teaching experience) and each criterion variable and between the predictor variables themselves. No outliers were detected, and descriptive statistics were obtained on each of the variables. Assumption of multivariate normal distribution was tested by plotting a scatter plot for each pair of predictor variables and between the predictor variables and the criterion variables and looking for the classic "cigar shape" (Gall et al., 2007). Assumption of non-collinearity was examined using a collinearity table and the Variance Inflation Factors (VIF) among the predictor variables. If a predictor variable is highly correlated with another predictor variable, they essentially provide the same information about the criterion variable. If the Variance Inflation Factor (VIF) is greater than 10, the assumption is violated (Gall et al., 2007).

The coefficient of determination (R^2) measures the proportion of the variance in the criterion variable that is explained by the predictor variable and determines whether the multiple regression model is a good fit for the data (Multiple regression, nd.) According to Warner (2021), R^2 is an index of effect size. It estimates the proportion of variance in the criterion variables from the predictor variables. However, R^2 is based on the sample and may be larger than it should be when generalized to a larger population; the adjusted R^2 corrects for this positive bias to provide

a value that would be more indicative of the population (Multiple regression, nd.). Consequently, the adjusted R^2 was used in this study to determine effect size. The following are the recommended verbal labels for R^2 sizes: r^2 of about .01 or less is a small effect, r^2 of about .09 is medium, and r^2 that is greater than .25 is large. The effect size statistic helps the researcher determine the practical significance of the research results and aid in interpretation; however, the effect size should not be used as the only determiner of the practical significance (Gall et al., 2007).

Statistical significance of the overall regression model was assessed in an ANOVA table to determine if years of experience, pre-service training, and in-service training predict teachers' aggregate self-efficacy for inclusion, self-efficacy for inclusive instruction, self-efficacy for collaboration, and self-efficacy for managing disruptive behaviors. If the levels of significance were less than .0125 due to Bonferroni Correction, the corresponding null hypothesis was rejected. If the post-hoc analysis revealed that the coefficient was not significantly different from zero, those coefficients were not deemed statistically significant in predicting the criterion variable (Gall et al., 2007).

Coefficients were interpreted for the continuous predictor variable (years of teaching experience). If p <.05, the slope coefficient was statistically significant, indicating a linear relationship between years of experience and the criterion variables. Coefficients for the categorical predictor variables (pre-service training and in-service training) were evaluated at the 95% confidence interval and statistical significance of the difference the same way as for the continuous predictor variables. If p < .05, the null was rejected; there was a statistically significant predictive relationship. Finally, a regression equation was generated from the coefficients.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative, predictive correlational study was to determine the best predictors of Christian school general education teachers' self-efficacy for inclusion of students with special needs. The predictor variables were pre-service training in special education, in-service training on topics related to special education, and years of teaching experience. The criterion variables were respondents' scores for aggregate self-efficacy for inclusion of students with special needs, teacher self-efficacy for using inclusive instruction, teacher self-efficacy for collaboration, and teacher self-efficacy with managing disruptive behaviors. A multiple linear regression was used to test the hypotheses. The Results section includes the research questions, null hypotheses, data screening, descriptive statistics, assumption testing, and results.

Research Questions

The following research questions were proposed:

RQ1: How accurately can aggregate self-efficacy for inclusion of students with special needs be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ2: How accurately can teacher self-efficacy for using inclusive instruction be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ3: How accurately can teacher self-efficacy for collaboration be predicted from a linear combination of predictor variables (pre-service training in special education; in-service

professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

RQ4: How accurately can teacher self-efficacy with managing disruptive behaviors be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

Null Hypotheses

The following null hypotheses were proposed:

$H_0$1: There will be no significant predictive relationship between the criterion variable (aggregate self-efficacy for inclusion of students with special needs) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

$H_0$2: There will be no significant predictive relationship between the criterion variable (teacher self-efficacy for inclusive instruction) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

$H_0$3: There will be no significant predictive relationship between the criterion variable (teacher self-efficacy for collaboration) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

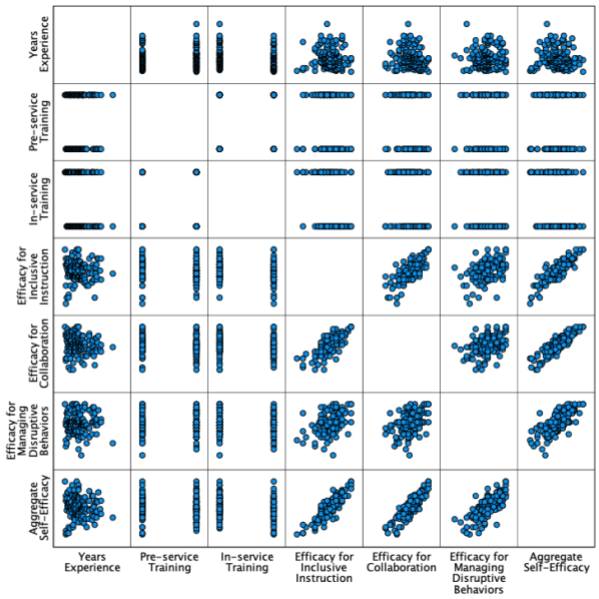
H_04: There will be no significant predictive relationship between the criterion variable (teacher self-efficacy for managing disruptive behaviors) and the linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools.

Data Screening

The researcher sorted the data and scanned for inconsistencies on each variable. No data errors or inconsistencies were identified. A matrix scatter plot was used to detect bivariate outliers between predictor variables and the criterion variables. No bivariate outliers were identified. Scatterplots for the dummy variables (pre-service training and in-service training) are not useful for detecting outliers but were included for reporting. See Figure 1 for the matrix scatter plots.

Figure 1

Matrix Scatter Plot



Descriptive Statistics

Descriptive statistics were obtained on each of the variables. The sample consisted of 139

participants (36 males and 103 females). The average age of participants was 45 years old. The youngest participant was 24 years old, and the oldest was 76. Values for the predictor variables were self-reported by the participants. Efficacy for inclusion of students with special needs was measured using the TEIP and scored following TEIP prescribed procedures to obtain an overall score on each of the three factors in the instrument along with an aggregate score of the average of each of the factors. Using SPSS® software, the researcher calculated the mean, mode, standard deviation, and range of scores of responses (n = 139) to the instrument. A value of 1 = *strongly disagree* indicated the lowest degree of self-efficacy and a value of 6 = *strongly agree* indicated a maximum level of self-efficacy. A high score of 6 indicated a high level of self-efficacy while a low score of 1 indicated extremely low self-efficacy. Table 1 provides the descriptive statistics for each variable.

Criterion Variables

The criterion variable, aggregate self-efficacy for inclusion of students with special needs, was measured by averaging the scores from the three factors to achieve a collective understanding of the overall self-efficacy of teachers for the inclusion of students with special needs in the general classroom. The researcher calculated the mean (M = 4.80) standard deviation (SD = .49) and range of scores (3.56 – 6.00). The criterion variable, self-efficacy for inclusive instruction, was measured with a series of six items that targeted a teacher's self-efficacy for using differentiated strategies for instruction and assessment of students with special needs. The calculation of teachers' responses on this variable produced a mean (M = 4.81), standard deviation (SD = .55), and range (3 - 6) of scores. The criterion variable, self-efficacy for collaboration, indicates teachers' self-efficacy for collaborating with other teachers, physical and occupational therapists, school professionals, and parents (Park et al., 2014). Descriptive statistics

revealed the mean (M = 4.67), standard deviation (SD = .66), and range (2.83 - 6). The criterion variable, self-efficacy for managing disruptive behaviors, measured teachers' self-efficacy for classroom management and managing difficult behaviors. The mean (M = 4.94), standard deviation (SD = .56), and range (3.17 - 6) were calculated.

Predictor Variables

Years of experience relates to the number of years that an individual has worked as a classroom teacher (Burroughs et al., 2019). The average number of years' experience for the survey respondents was 15 years (M = 15; SD = 10.51). The highest number of years' experience was 53, and the lowest was for one participant who indicated less than one year experience. Pre-service training refers to learning that was acquired during undergraduate studies for teacher candidates (Hills & Sessoms-Penny, 2021). Teachers were asked to respond either "yes" or "no" to the question, "Have you ever had any college-based pre-service courses that addressed special education needs of students?" Of the 139 respondents, 73 (52%) indicated that they had received some pre-service training in topics relating to special needs, and 66 (48%) responded that they had not. In-service training is also referred to as professional development which is a process of educator training that continues throughout teachers' entire teaching careers (Sancar et al., 2021). Teachers were asked, "Have you ever had any in-service training or professional development courses (including graduate level courses) that addressed special education needs of students?" Eighty-one teachers (58%) responded "yes" to having had in-service training compared to 58 (42%) who indicated that they had not. Responses to pre-service and in-service training were coded in SPSS® as 0 = yes and 1 = no.

Table 1

Descriptive Statistics

	N	Minimum	Maximum	*M*	*SD*
Years' Experience	139	0	53	15.43	10.505
Efficacy for Inclusive Instruction	139	3.00	6.00	4.8116	.54886
Efficacy for Collaboration	139	2.83	6.00	4.6677	.66337
Efficacy for Managing Disruptive Behaviors	139	3.17	6.00	4.9391	.55942
Aggregate Self-Efficacy	139	3.56	6.00	4.8061	.48695
Valid N (listwise)	139				

Assumption Testing

Assumption of Linearity

The multiple regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 1 for the matrix scatter plot.

Assumption of Bivariate Normal Distribution

The multiple regression requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution was met. Figure 1 provides the matrix scatter plot.

Assumption of Multicollinearity

A Variance Inflation Factor (VIF) test was conducted to ensure the absence of multicollinearity. This test was run because if a predictor variable (x) is highly correlated with another predictor variable (x), they essentially provide the same information about the criterion variable. If the VIF is too high (greater than 10), then multicollinearity is present. Acceptable

values are between 1 and 5. The absence of multicollinearity was met between the variables in this study. Tables 2, 3, 4, and 5 provide the collinearity statistics.

Table 2

Collinearity Statistics for Aggregate Self-Efficacy

		Collinearity Statistics	
Model		Tolerance	VIF
1	Years' Experience	.935	1.069
	Pre-service Training	.807	1.240
	In-service Training	.806	1.240

a. Dependent Variable: Aggregate Self-Efficacy

Table 3

Collinearity Statistics for Efficacy for Inclusive Instruction

		Collinearity Statistics	
Model		Tolerance	VIF
1	Years' Experience	.935	1.069
	Pre-service Training	.807	1.240
	In-service Training	.806	1.240

a. Dependent Variable: Efficacy for Inclusive Instruction

Table 4

Collinearity Statistics for Efficacy for Collaboration

		Collinearity Statistics	
Model		Tolerance	VIF
1	Years' Experience	.935	1.069
	Pre-service Training	.807	1.240
	In-service Training	.806	1.240

a. Dependent Variable: Efficacy for Collaboration

Table 5

Collinearity Statistics for Managing Disruptive Behaviors

		Collinearity Statistics	
Model		Tolerance	VIF
1	Years' Experience	.935	1.069
	Pre-service Training	.807	1.240
	In-service Training	.806	1.240

a. Dependent Variable: Efficacy for Managing Disruptive Behaviors

Results

A multiple regression was conducted to see if there was a relationship between the predictor variables and the self-efficacy scores of Christian school general education teachers. The predictor variables were pre-service training in special education, in-service training on topics related to special education, and years of teaching experience. Data from the teachers' responses to pre-service training and in-service training were provided as "yes" or "no" responses (0 = yes; 1 = no). The criterion variables were respondents' scores for aggregate self-efficacy for inclusion of students with special needs, self-efficacy for using inclusive instruction, self-efficacy for collaboration, and self-efficacy with managing disruptive behaviors.

$H_0$1: The researcher failed to reject the null of the first hypothesis at the 98.75% confidence level where $F(3, 135) = 2.015$, $p = .115$. There was not a statistically significant relationship between the predictor variables and the criterion variable (aggregate self-efficacy for inclusion of students with special needs). Table 6 provides the regression model results.

Table 6

Regression Model Results - Aggregate Self-Efficacy

Model		*SS*	*df*	*MS*	*F*	Sig.
1	Regression	1.403	3	.468	2.015	.115
	Residual	31.320	135	.232		
	Total	32.723	138			

a. Dependent Variable: Aggregate Self-Efficacy

b. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

The model's effect size for the first variable (aggregate self-efficacy) was medium where R = .207. Furthermore, R^2 = .043 and adjusted R^2 = .022 indicating that approximately 4.3% of the variance of the criterion variable can be explained by the linear combination of predictor variables pre-service training, in-service training, and years of experience. Table 7 provides a summary of the model.

Table 7

Model Summary – Aggregate Self-Efficacy

Model	*R*	R^2	Adjusted R^2	*SE*
1	.207[a]	.043	.022	.48167

a. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

$H_0$2: The researcher failed to reject the null of the second hypothesis at the 98.75% confidence level where $F(3, 135) = 3.069$, $p = .030$. There was not a statistically significant relationship between the combination of predictor variables and the criterion variable (teacher self-efficacy for using inclusive instruction). The *p*-value for the model did not fall under .0125 after the Bonferroni Correction. If the Bonferroni Correction were not implemented, the results would have been statistically significant at the $p = .05$ value, but the risk for a type 1 error would have increased (Warner, 2021). Table 8 provides the regression model results.

Table 8

Regression Model Results – Self-Efficacy for Inclusive Instruction

Model		*SS*	*df*	*MS*	*F*	Sig.
1	Regression	2.654	3	.885	3.069	.030
	Residual	38.918	135	.288		
	Total	41.572	138			

a. Dependent Variable: Self-Efficacy for Inclusive Instruction
b. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

The model's effect size was medium where R = .253. Furthermore, R^2 = .064 and adjusted R^2 = .043, indicating that approximately 6.4% of the variance of criterion variable can be explained by the linear combination of predictor variables. Table 9 provides a summary of the model.

Table 9

Model Summary - Self-Efficacy for Inclusive Instruction

Model	*R*	R^2	Adjusted R^2	*SEM*
1	.253	.064	.043	.53692

a. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

$H_0$3: The researcher failed to reject the null of the third hypothesis at the 98.75% confidence level where $F(3, 135) = 3.153$, $p = .027$. There was not a statistically significant relationship between the combination of predictor variables and the criterion variable (teacher efficacy for collaboration). The p value for the model did not fall under .0125 after the Bonferroni Correction. If the Bonferroni Correction were not implemented, the results would have been statistically significant at the $p = .05$ value, but the risk for a type 1 error would have increased (Warner, 2021). Table 10 provides the regression model results.

Table 10

Regression Model Results – Self-Efficacy for Collaboration

Model		*SS*	*df*	*MS*	*F*	Sig.
1	Regression	3.976	3	1.325	3.153	.027
	Residual	56.752	135	.420		
	Total	60.728	138			

a. Dependent Variable: Self-Efficacy for Collaboration

b. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

The model's effect size was medium where R = .256. Furthermore, R^2 = .065 and adjusted R^2 = .045, indicating that approximately 6.5% of the variance of criterion variable can be explained by the linear combination of predictor variables. Table 11 provides a summary of the model.

Table 11

Model Summary - Self-Efficacy for Collaboration

Model	*R*	R^2	Adjusted R^2	*SEM*
1	.256[a]	.065	.045	.64837

a. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

$H_0$4: The researcher failed to reject the null of the fourth hypothesis at the 98.75% confidence level where $F(3, 135) = .37$, $p = .780$. There was not a significant statistical relationship between the predictor variables and the criterion variable (teacher efficacy with managing disruptive behaviors). Table 12 provides the regression model results.

Table 12

Regression Model Results – Self-Efficacy for Managing Disruptive Behaviors

Model		*SS*	*df*	*MS*	*F*	Sig.
1	Regression	.351	3	.12	.37	.780
	Residual	42.84	135	.32		
	Total	43.19	138			

a. Dependent Variable: Self-Efficacy for Managing Disruptive Behaviors

b. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

The model's effect size was small where R = .090. Furthermore, R^2 = .008 and adjusted R^2 = -.014, indicating that approximately .8% of the variance of the criterion variable can be explained by the linear combination of predictor variables. Table 13 provides a summary of the model.

Table 13

Model Summary - Self-Efficacy for Managing Disruptive Behaviors

Model	*R*	R^2	Adjusted R^2	*SEM*
1	.090	.008	-.014	.56330

a. Predictors: (Constant), In-service Training, Years' Experience, Pre-service Training

The results of this study indicate that two of the models may have some predictive value for teachers' self-efficacy for inclusive instruction and for teachers' self-efficacy for collaboration. In-service training may possibly have some predictive value for self-efficacy for inclusive instruction. Christian schoolteachers who have had in-service training have more self-efficacy for inclusive instruction than those who have not. However, without the Bonferroni correction and low effect sizes, these results must be viewed as very inconclusive. When combined, pre-service training, in-service training, and years of experience may predict teachers' self-efficacy for collaboration. However, this finding is also impacted by the omission of the Bonferroni correction and low effect sizes.

CHAPTER FIVE: CONCLUSIONS

Overview

Because teachers' self-efficacy for inclusion impacts their willingness and effectiveness for creating successful inclusive environments for students with special needs, studies of variables that predict self-efficacy for inclusion are needed. This study specifically explored Christian schoolteachers' perception of their self-efficacy for inclusion of students with special needs in the general classroom. This chapter opens with a discussion of the results of the study, followed by the implications in light of relevant literature, limitations, and recommendations for further research.

Discussion

The purpose of this predictive correlation study was to determine the best predictors (pre-service training in special education, in-service training on topics related to special education, and years of teaching experience) of Christian school general education teachers' self-efficacy for inclusion of students with special needs. Teachers were asked to volunteer to complete an online survey of their self-efficacy for educating SWD in a general education classroom. The sample came from Christian schools in the state of North Carolina that identify as "conservative Christian." Participants in this study were limited to general education teachers who teach at the elementary, middle, or secondary level. The sample consisted of 36 males and 103 females, and the average age of participants was 45 years old. Participants rated their self-efficacy on a Likert scale of 1 to 6. A value of 1 = *strongly disagree* indicated the lowest degree of self-efficacy and a value of 6 = *strongly agree* indicated a maximum level of self-efficacy. Teachers reported data on the predictor variables by indicating the number of years they had been teaching and responding "yes" or "no" to whether they had had pre-service or in-service training in topics related to special

needs.

Research has demonstrated that inclusion of SWD is widely supported among educators and policy makers, yet the disparity of definitions of inclusion and inclusive education leads to confusion on how inclusion should be implemented. Advocates of full inclusion contend that all SWD should receive their education in the general classroom regardless of the level of their disabilities (Connor & Ferri, 2007; Friend & Bursuck, 2019.) On the other hand, Hornby (2015, 2020, 2021) proposed that inclusion of SWD should not be a one-size-fits-all approach. Each child's strengths and weaknesses should be considered when deciding on the most appropriate setting for the student to be successful. Confusion on this issue is not limited to public schools only; Christian school teachers would also be impacted by the dissimilarity of definitions for inclusion.

The theory of self-efficacy (Bandura, 1977) applies to the current study because when a teacher feels confident in his abilities to include SWD, he will be more motivated to organize and execute strategies to successfully accomplish inclusion (Bandura, 2012; Summers et al., 2017). Several prior research studies have targeted the self-efficacy of teachers for inclusion of SWD, but most samples studied have come from public schools in the United States and other countries. Few studies have explored the self-efficacy of Christian school teachers for inclusion (Bachrach, 2021). Lane (2017) found that research regarding special education services in Christian schools most often reported on small pockets of educators across the United States. The current study focused on only one state within the United States, North Carolina, which is representative of a larger body of Christian schools who have similar values and mission statements.

The theory of inclusive special education (Hornby, 2015) contributes to the current study as well. Inclusive special education is a comprehensive approach to special education and

recognizes that all SWD should be educated in the setting most appropriate for their individual needs (Hornby, 2015, 2021). Those settings may include the general classroom (mainstream), special classes (resource), or separate schools. The Christian schools in this study are not required to enroll SWD. Most Christian schools who do include SWD limit enrollment only to students with mild disabilities: ADHD, specific learning disabilities, and mild cognitive deficits. Those with more challenging behavioral disorders or intellectual disabilities are generally not admitted (Bachrach, 2021). Therefore, the participants in this study most likely teach in schools that serve only a limited population of SWD and only in the general education classes.

Of the 139 participants who completed the survey, 73 teachers (52.5%) indicated that they had pre-service training while 66 had not. When asked about in-service training, 81 teachers (58%) indicated that they had received in-service training while the remaining 42% reported that they had not. These statistics were compared to the scores for teachers' self-reported ratings of self-efficacy for inclusive instruction, collaboration, and managing disruptive behaviors. The participants in the study indicated relatively high rates of self-efficacy in all three factors. An analysis of the data revealed that a combination of pre-service training, in-service training, and years of experience did not significantly predict teachers' self-efficacy for inclusion of SWD. Werner et al. (2021) reported similar high ratings of teachers' self-efficacy for inclusion among Israeli elementary teachers in both general and special education. Their study did find a statistically significant relationship between teachers' self-efficacy and prior training in topics related to inclusion. The authors concluded that higher perceived knowledge of inclusion policy and teachers' perception of school support for inclusion were correlated to higher self-efficacy for inclusion of SWD.

Research Question One

The first research question for the study was the following:

RQ1: How accurately can aggregate self-efficacy for inclusion of students with special needs be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

The criterion variable, aggregate self-efficacy for inclusion of students with special needs, was measured by averaging the scores from the three factors (inclusive instruction, collaboration, and managing disruptive behaviors) to determine a collective understanding of the overall self-efficacy of teachers for the inclusion of SWD in the general classroom. An analysis of the data did not reveal a statistically significant relationship between a combination of years of experience, pre-service training, or in-service training and teachers' aggregate self-efficacy for inclusion of students with special needs. Although the combination of predictor variables does not indicate a significant correlation with this criterion variable, the data suggests that the teachers in this study believe they are capable of successfully creating an inclusive environment for their students. Teachers were asked to respond to a series of positively worded statements about their self-efficacy for including SWD. For example, "I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated." A response of 4 indicated "agree somewhat" and a response of 5 indicated "agree." After averaging all the scores from the three factors, the mean score on aggregate self-efficacy was 4.80, indicating that a majority of the participants in the study rate their self-efficacy between "agree somewhat" and "agree."

These levels of teachers' self-reported efficacy are similar to those reported in other studies (McGarrigle et al., 2021; Yada et al., 2022). The results in the current study are slightly higher than those reported by Alnahdi and Schwab (2021). Their study investigated the

relationship between pre-service teachers' attitudes, knowledge, and self-efficacy for inclusive teaching practices. Like the current study, the pre-teachers in the survey done by Alnahdi and Schwab (2021) reported having high self-efficacy for inclusive practices, yet the results indicated no statistically significant relationship between the predictor variables (gender, program, pre-service training, and experience working with SWD) and the criterion variables of self-efficacy for inclusion of SWD.

Research Question Two

The second research question for the study was the following:

RQ2: How accurately can teacher self-efficacy for using inclusive instruction be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

This study did not find a statistically significant relationship between the combination of predictor variables and teachers' self-efficacy for using inclusive instruction. However, the data did indicate that in-service training may possibly have some predictive value for self-efficacy for inclusive instruction ($p = .03$). Extensive reviews of the literature revealed that one of the challenges to successful inclusive instruction is teachers' self-efficacy (Kart & Kart, 2021; Woodcock & Jones, 2020). This study indicated that participants who have had in-service training reported having more self-efficacy for inclusive instruction than those who had not. This small effect must be cautiously considered because the result was not significant at the .0125 level required for this study.

The average score for teachers' self-efficacy for inclusive instruction in this study was 4.81, indicating a high level of self-efficacy for differentiating instruction effectively for SWD. In

a comparable study, McGarrigle et al. (2021) found similar results. Teachers in a large government primary school in Australia indicated high levels of confidence on the TEIP items relating to inclusive instruction practices. Specht and Metsala (2018) also reported high scores for inclusive instruction. The teachers in their study, also using the TEIP, rated their self-efficacy for inclusive instruction between 4.93 (female teachers) and 5.09 (male teachers). The researchers in this Canadian study found that teachers' self-efficacy for inclusive instruction was positively correlated to having had pre-service teaching experience with individuals with disabilities and practice with using inclusive techniques.

Previous research that studied the effectiveness of in-service training for teachers found that teachers' response to professional development is linked to their individual beliefs, social relationships, and their school conditions (Cooc, 2019). Similarly, Woodcock and Woolfson (2019) revealed that teachers' impressions of professional development are that most in-service training is too heavily focused on the principles of inclusion and too little on practical application. The current study asked only if the teachers had participated in any in-service training for special education. The type or quality of the training that participants received is unknown, so it is difficult to determine whether the small predictive relationship between in-service instruction was related to the quality or frequency of the professional development.

Research Question Three

The third research question for the study was the following:

RQ3: How accurately can teacher self-efficacy for collaboration be predicted from a linear combination of predictor variables (pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

A statistically significant relationship was not found between the combination of predictor variables and teachers' efficacy for collaboration. The average score for teachers' self-efficacy for collaboration was 4.67, the lowest score of the three factors. Although the relationship was not statistically significant (p = .03) after applying the Bonferroni to protect against type 1 errors, the responses to the survey did indicate the possibility of a predictive value between teachers' self-efficacy for collaboration and a combination of pre-service training, in-service training, and years of experience. However, this result must be considered as only potentially indicative of a predictive relationship. It is more likely that the current study confirms the findings of prior research on the topic of collaboration between general and special educators.

The research done by Specht and Metsala (2018) generated similar results using the TEIP. The teachers in their study rated their self-efficacy for collaboration lower than on the other two factors in the instrument. This study broke down the results by gender and found that men had an average score of 4.50 and the average of the female teachers' scores was 4.84. Specht and Metsala (2018) concluded that teachers who have a friend with a disability feel more efficacious in collaborating with parents, educational assistants, and other professionals in the education of SWD. In a similar study, Joyce et al. (2020) found that successful collaboration was the result of having ideal conditions and adequate time for communication between classroom teachers and other specialists.

Research Question Four

The fourth research question for the study was the following:

RQ4: How accurately can teacher self-efficacy with managing disruptive behaviors be predicted from a linear combination of predictor variables (pre-service training in special

education; in-service professional development on topics related to special education; years of teaching experience) for general education teachers in Christian schools?

There was not a significant statistical relationship between the combination of predictor variables and teachers' self-efficacy with managing disruptive behaviors. Teachers' self-efficacy for inclusion was highest on this factor (4.94). Teachers responded to statements that assessed their self-efficacy for classroom management as well as their self-efficacy for responding to challenging behaviors from students who are physically aggressive. Considering that approximately half the participants in the study indicated that they had not received any pre-service or in-service training, this score is considerably high. Without breaking down the impact of each predictor variable individually, it is difficult to ascertain if this result is a product of training that specifically targeted classroom management techniques in pre-service or in-service training, or if self-efficacy in managing disruptive behaviors was a product of experience or another factor altogether. Another possibility could be that Christian schools are not known for accepting or keeping students who have extremely disruptive behaviors, so teachers' definition of "disruptive" may be different from what public school teachers would encounter from SWD (Bachrach, 2021).

In contrast, teachers in the Specht and Metsala study (2018) rated their self-efficacy for managing disruptive behavior the lowest of the three factors. The researchers concluded that teachers' self-efficacy for managing disruptive behavior was correlated to teachers' beliefs about student-centered learning. They also found that teachers who had more teaching experience with individuals with exceptionalities and pre-service teachers who had lengthy student-teaching experiences felt more efficacious in managing behaviors. Alsarawi and Sukonthaman (2021) also used the TEIP to investigate a possible predictive relationship between teachers' self-efficacy for

inclusion and a combination of variables (gender, program, pre-service training, and experience working with SWD). The results of their study indicated no significant predictive relationship between teachers' self-efficacy for managing disruptive behaviors and a combination of gender, program, pre-service training, and experience. Instead, they discovered that attitude toward inclusion of SWD and knowledge of inclusion explained 31.4% above and beyond what was explained by the extraneous variables.

Implications

This study added to the body of knowledge and theories of self-efficacy, planned behavior, and inclusive special education among a population of educators who have previously not been widely studied. The findings of the current study are relevant not only for teachers but also for parents of SWD. Christian parents want more faith-based options for educating their children with disabilities (Lane et al., 2019). Studying the self-efficacy of Christian school teachers is essential for improving options for these families. If the predictors of self-efficacy for Christian school teachers can be understood, schools can develop targeted plans to enhance their ability to be more inclusive of SWD. Christian colleges can also benefit from understanding the importance of providing pre-service teachers with a more comprehensive preparation for developing their skills for inclusive instruction, collaboration, and managing disruptive behaviors.

Only 52% of participants indicated that they had received any pre-service training in topics relating to special needs, and 58% responded that they had received any in-service training in special education. These results should motivate Christian colleges to design teacher-training programs that incorporate more courses and more robust training for pre-service teachers on topics related to inclusion and special education. Christian colleges should develop programs that include practical training and practice in inclusion strategies. Alsarawi and Sukonthaman (2021)

investigated the relationship between self-efficacy for inclusion and pre-service training. Their analysis suggested that the current methods of presenting inclusion via university coursework may not be relevant to teachers' actual classroom experiences and observations of inclusion.

Additionally, school administrators should incorporate more professional development training for their teachers to increase their skills for creating inclusive environments for SWD. Although this study did not find a significant predictive relationship between the combination of variables, prior studies have demonstrated the importance of professional development for teachers (Sancar et al., 2021). Christian schools, as well as public schools, face a shortage of trained special education teachers; effective professional development may improve these staffing challenges by equipping general education teachers with the skills they need for effectively creating inclusive classrooms (Cooc, 2019). Continuing in-service training equips teachers with strategies for fostering the learning of students of all abilities (Schunk, 2020).

This study offered some understanding of Christian schoolteachers' perception of their ability to include SWD in the general classroom. The average self-efficacy for teachers on all three factors ranged from 4.67 to 4.94 with an aggregate score of 4.80. A score of 4 on the TEIP indicated that participants "agree somewhat" and 5 indicated that they "agree" with the statements on the survey. These scores suggest that teachers generally believe in their ability to create an inclusive environment in a multi-ability classroom. If so, why are more Christian schools not practicing inclusion? The results of this study may support the findings of previous studies that suggest that the barriers to inclusion in Christian schools are related to a lack of professional and financial resources as well as a fear of compromising the standards of academic excellence for the SWOD (Bachrach, 2021). Ramirez and Stymeist (2019) suggested that the gap between the inclusion of SWD in the public schools verses the exclusion model of many Christian schools

may be indicative of "an undeveloped heart for students with special needs" (p. 3). This may explain the lack of provision for SWD in some Christian schools; however, the teachers in this survey were from schools whose administrators volunteered to participate in the study, indicating a willingness to promote the expansion of special education services in Christian schools.

Limitations

The results of this study may be impacted the confusion in the term inclusion. According to several authors (Dell'Anna et al., 2021; Holmqvist & Lelinge, 2021; Krischler et al., 2019), definitions of inclusion remain ambiguous. Surveys of pre-service and in-service teachers in earlier studies revealed that teachers view inclusion in significantly different ways; this dissimilarity impacted teachers' attitudes and efficacy for inclusion (Krischler et al., 2019). Wilcox (2020) noted that without an agreed-upon definition of inclusion, research studies cannot adequately determine the self-efficacy of teachers for inclusion. Because of the quantitative nature of this study, the results may also have been impacted by the participants' diverse understandings of inclusion and inclusive instruction.

The predictor variables, pre-service training and in-service training, were not defined nor broken down to determine the extent of their training in topics related to special education. Teachers were simply asked to report "yes" or "no" as to whether they had had any pre-service or in-service training that addressed issues related to special education. The questions left teachers to infer for themselves whether pre-service training meant an entire course or one lecture. The difference between extensive training and a short presentation on special education topics could potentially have a significant impact on teachers' view of their self-efficacy.

This study used the TEIP which has reliability and validity. However, the items on the survey could be interpreted differently by Christian school teachers who are not as familiar with

terms related to inclusion as their public school counterparts. Additionally, some of the individual items on the TEIP could be interpreted differently by teachers depending on their prior experience. For example, a question referencing disruptive behaviors may indicate minor infractions to some teachers but may indicate oppositional defiant behaviors to another teacher who has had more exposure to students with a variety of disabilities.

A review of the literature suggests that teachers' self-efficacy for inclusion is linked to their attitudes toward SWD and their beliefs about inclusion (Van Mieghem et al., 2020; Yada et al., 2022). The theory of planned behavior assumes that attitudes affect behavior (Ajzen, 1991). This theory was tested by Knauder and Koschmieder (2019) to measure the impact of teachers' attitudes on their self-efficacy. The instrument used for this study did not include questions related to attitudes. Including an additional instrument to measure teacher attitudes may have contributed to understanding whether self-efficacy is impacted by attitude or vice-versa.

This study did not consider how individual predictors may impact teachers' self-efficacy for the three factors of the TEIP. The results for each factor on the scale were compared only to a combination of all three predictor variables. If the factors were compared to only one predictor variable at a time, the results may have been different. In addition, a breakdown by individual question on the TEIP may reveal even more specific understanding of specific weaknesses or strengths in teachers' self-efficacy for inclusion of students with special needs.

Recommendations for Future Research

The following are recommendations for additional research:

1. Conduct the same study using a qualitative approach for comprehensive understanding of how teachers define inclusion and their self-efficacy for creating an inclusive environment.

2. Analyze the three predictor variables used in this study separately against the criterion variables to determine which variable has the most impact on self-efficacy.
3. Incorporate an additional instrument to measure teachers' attitudes toward inclusion of SWD to determine how attitudes impact self-efficacy or vice-versa.
4. Consider the responses to individual items on the TEIP. Some of the questions included in the three factors could elicit very different ratings of self-efficacy. Separating them out and analyzing them individually may provide deeper understanding of teachers' self-efficacy on specific elements of inclusion.

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APPENDIX A – APPROVAL TO USE THE TEIP INSTRUMENT

May 9, 2022

Lisa Joyner
Liberty University
Department of Education
[redacted]

Dear Sir/Madam:
I am a doctoral student from Liberty University writing my dissertation titled *Predictors of Self-Efficacy of Christian School Teachers Toward Inclusion of Students with Disabilities*, under the direction of my dissertation committee chaired by Dr. Connie Pearson, who can be reached at [redacted]
I would like your permission to use the TEIP survey/questionnaire instrument in my research study. I would like to use and print your survey under the following conditions:

- I will use the surveys only for my research study and will not sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.
- I will send a copy of my completed research study to your attention upon completion of the study.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail: [redacted]
Sincerely,
Lisa Joyner

Hi Lisa,
You are most welcome to use the scale. All the very best with your studies. Regards,
Umesh

Professor Umesh Sharma, Ph.D, MAPS Associate Dean (Equity and Inclusion) Faculty of Education
Room 1.67D

Monash Universit ,
[redacted]
Website: https://research.monash.edu/en/persons/umesh-sharma

ORCID icon http://orcid.org/0000-0002-5198-9379 @Umesh3056 *Australia's Research Field Leader in Special Education* (a top rating for a researcher in his/her respective field). Chief Co-Editor: *Australasian Journal of Special and Inclusive Education* Chief Co-Editor: *The Oxford Encyclopaedia of Inclusive and Special Education* *I acknowledge and pay respect to the Traditional Owners and Elders - past, present and emerging - of the lands and waters on which Monash University is located*

APPENDIX B – APPROVAL TO PUBLISH INSTRUMENT

On Thu, 26 May 2022 at 00:15, Joyner, Lisa <[redacted]> wrote:
Dr. Sharma,

Thank you so much for permission to use the TEIP. May I also have your permission to publish the instrument in my manuscript? I plan to break down my data by the subfactors and would like to add them for context for the reader.

Thank you for your consideration,

Lisa Joyner
[redacted]

From: Umesh Sharma[redacted]
Sent: Sunday, May 8, 2022 9:28 PM
To: Joyner, Lisa <[redacted]>
Subject: [External] Re: Permission to use the TEIP

Hi Lisa,
Yes, you can.
Regards,
Umesh

Professor Umesh Sharma, Ph.D, MAPS
Associate Dean (Equity and Inclusion)
Faculty of Education
Room 1.67D
Monash University,
[redacted]
Website: https://research.monash.edu/en/persons/umesh-sharma

http://orcid.org/0000-0002-5198-9379

@Umesh3056

Australia's Research Field Leader in Special Education (a top rating for a researcher in his/her respective field).

Chief Co-Editor: *Australasian Journal of Special and Inclusive Education*

Chief Co-Editor: *The Oxford Encyclopaedia of Inclusive and Special Education*

I acknowledge and pay respect to the Traditional Owners and Elders - past, present and emerging - of the lands and waters on which Monash University is located

APPENDIX C – TEIP INSTRUMENT

Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs, 12*(1), 12-21. https://10.1111/j.1471-3802.2011.01200.x

Teacher Efficacy for Inclusive Practice (TEIP) Scale

This survey is designed to help understand the nature of factors influencing the success of routine classroom activities in creating an inclusive classroom environment. In an inclusive classroom, students from a wide range of diverse backgrounds and abilities learn together with necessary supports available to teachers and students.

Please circle the number that best represents your opinion about each of the statements. Please attempt to answer each question.

1 – Strongly disagree
2 – Disagree
3 – Disagree somewhat
4 – Agree somewhat
5 – Agree
6 – Strongly agree

	SD	D	DS	AS	A	SA
I can make my expectations clear about student behavior.	1	2	3	4	5	6
I am able to calm a student who is disruptive or noisy.	1	2	3	4	5	6
I can make parents feel comfortable coming to school.	1	2	3	4	5	6
I can assist families in helping their children do well in school.	1	2	3	4	5	6
I can accurately gauge student comprehension of what I have taught.	1	2	3	4	5	6
I can provide appropriate challenges for very capable students.	1	2	3	4	5	6
I am confident in my ability to prevent disruptive behavior in the classroom before it occurs.	1	2	3	4	5	6
I can control disruptive behavior in the classroom.	1	2	3	4	5	6
I am confident in my ability to get parents involved in school activities of their children with disabilities.	1	2	3	4	5	6

I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1	2	3	4	5	6
I am able to get children to follow classroom rules.	1	2	3	4	5	6
I can collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	1	2	3	4	5	6
I am able to work jointly with other professionals and staff (e.g., aides, other teachers) to teach students with disabilities in the classroom.	1	2	3	4	5	6
I am confident in my ability to get students to work together in pairs or in small groups.	1	2	3	4	5	6
I can use a variety of assessment strategies (e.g., portfolio assessment, modified tests, performance-based assessment, etc.).	1	2	3	4	5	6
I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	1	2	3	4	5	6
I am confident when dealing with students who are physically aggressive.	1	2	3	4	5	6
I am able to provide an alternate explanation or example when students are confused.	1	2	3	4	5	6

APPENDIX D – PERMISSION REQUEST TO ADMINISTRATORS

Date:

Dear (Administrator):

As a current doctoral candidate in the Education Department at Liberty University, I am conducting research for partial fulfillment of the requirements of a doctoral degree in Curriculum and Instruction with an emphasis in Special Education. The title of my research is "Predictors of Self-Efficacy of Christian School Teachers Toward Inclusion of Students with Disabilities." The purpose of the study is to understand how pre-service and in-service training in topics related to special education along with years of teaching experience influence teachers' self-efficacy for creating inclusive classrooms for students with a variety of abilities and disabilities.

I am writing to request permission to conduct my research with teachers in your school. Participants will be asked to respond to a brief demographic survey as well as respond to 18 statements related to their self-efficacy for inclusion practices. This data will be helpful for other Christian school administrators and universities to understand how to provide more effective pre-service and in-service training for general education teachers on effective strategies for including students with disabilities in general education classrooms. Participants will be given information about the study and asked to give their informed consent prior to participating in this voluntary, anonymous survey.

Thank you for considering my request. If you choose to grant permission for your teachers to participate in the survey, please respond by emailing your approval and providing me with the email addresses of the general (not special) education teachers in your school.

Sincerely,

Lisa Joyner

Doctoral Candidate

APPENDIX E – PARTICIPANT RECRUITMENT LETTER

Date:

Dear Teacher:

As a doctoral candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree in Curriculum and Instruction with an emphasis in Special Education. The purpose of my research is to understand how pre-service and in-service training in topics related to special education along with years of teaching experience influence teachers' self-efficacy for creating inclusive classrooms for students with a variety of abilities and disabilities. I am writing to invite eligible participants to join my study.

Participants must be K-12 general education teachers (not special educators) in a Christian school located in North Carolina. Participants will be asked to respond to a brief demographic survey as well as respond to 18 statements related to self-efficacy for inclusion practices. Participation will be completely anonymous; no personal, identifying information will be collected.

A consent document that contains additional information about my research is attached to this email. After reading the consent form, if you choose to participate in the study, please click the link and proceed to the survey. Doing so will indicate that you have read the consent information and agree to complete the survey. You do not need to sign and return the consent document.

Link to survey:

Sincerely,

Lisa Joyner

Doctoral Candidate

APPENDIX F – TEACHER CONSENT FORM

Title of the Project: Predictors of Self-Efficacy of Christian School Teachers Toward Inclusion of Students with Disabilities

Principal Investigator: Lisa Joyner, M.Ed., Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a general education teacher (not special education) in a Christian school located in North Carolina. 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 this quantitative correlational study is to determine how accurately self-efficacy for inclusion of students with special needs can be predicted from a linear combination of predictor variables (*pre-service training in special education; in-service professional development on topics related to special education; years of teaching experience)* for general education teachers in Christian schools. The lack of inclusion in Christian schools has been noted in the research, but few studies have researched the self-efficacy of Christian school educators toward the inclusion of children with special needs in general classrooms.

What will happen if you take part in this study?

If you agree to participate in this study, I will ask you to complete a questionnaire of the following:

- Fill out a demographic survey for purposes of replication (age, gender, years of teaching experience, grade levels taught, pre-service and in-service training in topics related to special education).
- Fill out the Teacher Efficacy for Inclusive Practices survey (18 items). You will be asked to respond to each statement on a 1-6 scale (Strongly Disagree to Strongly Agree).
- Estimated time: 20 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: The information you provide could influence Christian schools to make their schools more accessible to all children regardless of their learning disabilities. Administrators of Christian schools and universities may use the results of this study to provide more effective pre-service and in-service training for general education teachers.

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.

How will personal information be protected?

The records of this study will be kept private. At all stages of data collection, information that could identify participants will be protected. Google Forms has a feature that allows the researcher to see the email addresses of those who have participated but does not link the emails to the responses, ensuring anonymity. All entries will be identified by a unique identifying

number; no names will be collected from the participants. Data will be stored securely and only the researcher will have access to records. Data will be stored on a password-protected computer and/or password-protected external drive/jump drive/cloud storage. The data will be retained for a period of five years after the completion of this research study. Data collected may be shared for use in future research studies or with other researchers.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or your school. If you decide to participate, you are free to skip any question or withdraw from the study at any time 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 before submitting and close your internet browser. Your responses will not be recorded and will not be included in the study

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

The researcher conducting this study is Lisa Joyner. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted]. You may also contact the researcher's faculty sponsor, Dr. Constance Pearson, 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

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

_____

Printed Subject Name

_____

Signature & Date

APPENDIX G – IRB APPROVAL

July 25, 2022

Lisa Joyner
Constance Pearson

Re: IRB Exemption - IRB-FY22-23-14 Predictors of Self-Efficacy of Christian School Teachers Toward Inclusion of Students with Disabilities

Dear Lisa Joyner, Constance Pearson,

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.(i). 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).
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

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