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Teacher Efficacy and Achievement of Students With Disabilities: A Mixed-Methods Study

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This is to certify that the doctoral study by

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Abstract

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MAEd, University of Nebraska at Kearney, 2011

BA, Nebraska Wesleyan University, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Special Education

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Abstract

Students with special needs in secondary schools are not meeting standards as indicated by adequate yearly progress. Guided by Bandura's social cognitive theory, the purpose of this mixed-methods study was to examine the relationship between general education teacher self-efficacy and academic achievement among students with disabilities. Quantitative data were collected from 23 general education teachers using the Teacher Efficacy for Inclusive Practice Scale and Collection of Classroom Assessment Data Form, in which general education teachers reported student academic achievement data in the form of end-of-chapter and end-of–unit summative quiz and test scores. A multiple linear regression analysis was used to investigate the dependent variable, academic achievement of secondary students, and 2 independent variables: general education teacher self-efficacy and disability status of students. Quantitative results indicated no relationship between teacher self-efficacy and student academic achievement. To further examine areas of reported lower teacher self-efficacy from the quantitative portion of the study, qualitative general education teacher interview data were collected from 20 participants from the same population. Responses were summarized, analyzed, and managed into themes and subtle trends. Qualitative results indicated negative feelings regarding teacher education programs and positive feelings regarding a desire for continuing professional development opportunities in the area of special education. The outcomes of this study may lead to positive changes in teacher education programs and professional development opportunities and may create a path for improved general education teacher preparation on providing instruction for students with disabilities.

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Dedication

This work is dedicated to God and my family, first and foremost; they never gave up on me and they never will. This journey has been one full of bumps, twists, turns, and sometimes complete roadblocks. But God gave me a fire for advocating and a passion for education, and I praise Him for these blessings. My husband, Jeremy, and my sons, Hudson and Asher, are beyond supportive of my appetite for and dedication to lifelong learning; they are so proud of "Dr. Mom." I love you all more than I could ever say in words, and thank you for being you and loving me. To my parents, thank you for your never-ending encouragement and for modeling what a strong marriage is; I am proud every day to be your daughter. To my brother, you are the smartest person I know and I love you more than words; but if you actually read this, I'll lie and say it was a typo. Next, I thank my friend and special education colleague and mentor, Sherry, for teaching me to truly love, to fight for what is good and true, and to NEVER give up on my students. Rest in peace, dear friend, and thank you for sharing your life lessons and passion for special education with me. Third, I dedicate this work and all my effort to my students past, present and future. You are my passion and my reason. Never stop learning and never stop fighting for the good. Hard work and success look different for everyone.

Acknowledgments

At this point in my academic career, I have come to truly understand this work is due not only to my own effort but also, and especially, to the support network of my family, friends, colleagues, and Walden faculty who never gave up on me and never allowed me to sacrifice my dream of helping students through research. This degree is an accomplishment but only because I will use it to make a difference in education. I especially thank my husband, Jeremy, and sons, Hudson and Asher, for always providing words and hugs of encouragement. I thank my chairs, Dr. Luetzow, Dr. Hoffman, and Dr. Khoury, for continuously inspiring and challenging me as well as always offering professional advice and assistance. To my URR, thank you for working so hard to help me make this research accurate, effective, and thorough. To the general education teachers willing to participate in my research study, thank you. And to all who helped on this journey—family, friends, colleagues, and professors included—thank you for your support, encouragement, and persistence.

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Chapter 1: Introduction to the Study

Introduction

General education teachers experience increased demands to effectively teach all students (Shoulders & Scott Krei, 2016). Not only are teachers responsible for being experts in content areas, they also have to have the skills necessary to teach students with disabilities along with their nondisabled peers (Shani & Hebel, 2016). However, numerous researchers have concluded general education teachers often have not received the necessary training to teach students with disabilities (Lim & Kim, 2014; Wagner & Imanel-Noy, 2014). As a result of the lack of training, many general education teachers do not have confidence in teaching students with disabilities, which often leads to low self-efficacy (Cameron & Cook, 2013). Self-efficacy was defined by Bandura (1994) as the beliefs people hold about their own abilities to generate positive outcomes for others. By studying the relationship between general education teacher self-efficacy and achievement of secondary students with disabilities, it is possible to provide implications for the development of effective teacher education programs (Gao, Xiang, Chen, & McBride, 2014). Researchers, such as Conderman, Johnston-Rodriguez, Hartman, and Walker (2013), have discussed such improved teacher training programs are necessary for greater student success. This chapter consists of background information related to the study topic as well as the problem and purpose of the study with stated research questions and hypotheses. I provide information regarding theoretical framework, nature of the study, definitions, assumptions, and scope and delimitations. Finally, I discuss limitations and significance.

Background

When general education teachers exhibit low self-efficacy, it negatively impacts student achievement (Risconscente, 2014). It is common to find connections between low teacher self-efficacy and student achievement in multiple core education areas (Chang, 2015; Son, Han, Kang, & Kwon, 2016). Specifically, Fuchs et al. (2014) reported secondary students with disabilities continued to fall short of meeting school, district, and national standards. Rashidi and Moghadam (2014) provided more evidence low teacher self-efficacy led to low academic achievement. Furthermore, researchers have discussed students with disabilities, while physically included in the classroom, do not academically perform as well in the inclusive setting as those students without disabilities, and this may be due to a lack of teacher preparation (Cramer, Alvarez McHatton, & Little, 2015). As a result of this perceived negative relationship between general education teachers' low self-efficacy and the low achievement of students with disabilities, this study aimed to examine the validity of that relationship.

There is an ever-increasing disparity between the academic achievement of secondary students with disabilities and those without, both of whom are taught by general education teachers in the same environment (Harr-Robins et al., 2013). Little research exists with a focus on achievement of students with disabilities as it relates to general education teacher self-efficacy; most studies center on achievement of students without disabilities. Eventually, results of this study could provide teacher training programs and school districts with suggestions for improving the self-efficacy of general education teachers.

Problem Statement

There is an increased number of students with disabilities who receive the majority of their instruction in general education classrooms at the secondary level (National Center for Education Statistics, 2015). This increase is evident since the passage of the Education for All Handicapped Children Act of 1975 and the Individuals with Disabilities Education Act of 1997, which required students with disabilities to receive their education in the least restrictive environment (Education for All Handicapped Children Act, 1975; Individuals with Disabilities Education Act Amendments, 1997). There is a problem in education in that, across the United States, students with disabilities in secondary schools are not meeting school, district, and national standards as indicated by adequate yearly progress (AYP) (Fuchs et al., 2014; Schulte & Stevens, 2015; Usher, 2012). Specifically, Morgan et al. (2014) and Schulte and Stevens (2015) reported students with disabilities at the secondary level showed lower average achievement and slower growth academically than students without disabilities when they received instruction in general education classrooms. Levi, Einav, Raskind, Ziv, and Margalit (2013) discussed that greater problems with low general education teacher self-efficacy may be exacerbating this disparity in student achievement.

Researchers have also noted general education teachers' low self-efficacy may be a factor causing the lack of student achievement at the secondary level (Castro-Villarreal, Guerra, Sass, & Hseih, 2014; Loreman, Sharma, & Forlin, 2013). However, there seems to be a gap in research specifically geared toward finding how general education teachers' self-efficacy is related exclusively to the achievement of students with

disabilities being taught in the general education classroom; much of the research is instead focused on the achievement of all students (Buzick & Jones, 2015). Research has shown the low self-efficacy level of general education teachers may negatively impact the time and effort devoted to designing lesson plans and delivery of instructional strategies and practices (Holzberger, Philipp, & Kunter, 2013). For example, teachers with low self-efficacy were more likely to give up on students who did not learn as quickly, to hold a pessimistic view of the student's achievement, and to possess a rigid classroom management style (Bernadowski, Perry, & Del Greco, 2013). Alternately, Walter (2015) found general education teacher self-efficacy may predict actual teaching skills. Additionally, Althauser (2015) stated professional development, provided in an effort to increase teacher self-efficacy, was important to improved student achievement. Increasing general education teacher self-efficacy may help schools address the issue of students with disabilities not meeting AYP.

Other researchers expanded on the effects teacher self-efficacy can have on student achievement via student self-efficacy. For example, Chang (2015) discussed increases to teacher self-efficacy positively impacted student self-efficacy and therefore caused increases to student achievement in two general education mathematics classrooms. Teachers' views of their abilities to effectively instruct all students greatly affected the beliefs students held about their own abilities to perform academically; student self-efficacy ultimately affected their achievement (Durowoju & Onuka, 2015). Therefore, the possibility exists that low general education teacher self-efficacy is a continuous contributing factor to the low achievement of secondary students with

disabilities. Due to the gap in research discussed previously, I focused this study on the achievement of secondary students with disabilities.

Purpose of the Study

The purpose of this mixed-methods study was to determine if general education teachers' self-efficacy is related to the academic achievement of students with disabilities at the secondary level. Risconscente (2014) and Shahzad and Naureen (2017) reported teachers' high self-efficacy had a positive effect on students' achievement. Conversely, teachers with low self-efficacy had a negative effect on students' achievement (Holzberger et al., 2013). However, few studies exist which specifically focus on general education teachers' self-efficacy related to the achievement of students with disabilities. I employed a mixed methods study using a sequential explanatory design to explore and offer insight into general education teacher initial survey responses.

To assist schools in addressing the problem of secondary students with disabilities not meeting AYP, it may be beneficial to study the role general education teachers' self-efficacy plays. The ultimate intention of this study was to allow general education teachers to open up a dialogue with public school administrators, and possibly with administration in teacher training programs at higher education institutions, to convey needs and desires for greater preparation to meet the ever-increasing needs of students with disabilities in their classrooms. The Teacher Efficacy for Inclusive Practice (TEIP) scale (Sharma, Loreman, & Forlin, 2012), an already established measure of teacher efficacy, and classroom assessment data were used to better understand the relationship between general education teacher self-efficacy and the achievement of students with

disabilities compared to students without disabilities. I employed a multiple linear regression analysis to investigate one dependent variable, achievement of secondary students, and two independent variables, general education teacher self-efficacy and whether secondary students had a verified disability. After the completion of quantitative analysis, I conducted detailed interviews with general education teachers from the same population to further explain their perceived self-efficacy related to instructing students with disabilities alongside nondisabled peers.

Research Question and Hypotheses

A mixed-methods research design allowed for a deep analysis of the research questions in this study. The quantitative aspect of the study included the dependent variable, achievement of secondary students, and two independent variables, general education teacher self-efficacy and disability status of secondary education students; these were measured using a multiple linear regression analysis to determine if self-efficacy was related to the achievement of secondary students. I collected summative achievement data for both students with and without disabilities to allow for comparison if a significant interaction was found. For the quantitative portion of this study, the research question is as follows:

RQ1: What is the relationship between the self-efficacy of general education teachers on providing instruction to secondary students with disabilities and those students' academic achievement as measured by their performance on classroom assessments?

H_0: Academic achievement of secondary students with disabilities is not significantly related to general education teacher self-efficacy.

H_1: Academic achievement of secondary students with disabilities is significantly related to general education teacher self-efficacy.

I gathered qualitative data through individual interviews with general education teachers who instruct students with disabilities along with their nondisabled peers. These data were gathered to further explain areas of reported lower levels of self-efficacy from quantitative survey data. The qualitative research question is as follows:

RQ2: What roles do teacher education programs and continuing professional development workshops play in the perceived levels of teacher self-efficacy for general education teachers instructing students with disabilities in the inclusive classroom?

Theoretical Foundation for the Study

Bandura's (2001) social cognitive theory served as the theoretical foundation for this study. This theory describes cognitive processes and emergent brain activities. Bandura contended humans were agents of cognitive processing as opposed to simply being reactive to thoughts (Bandura, 1986). Essentially, the human cognitive process was one which was creative, reflective, proactive, and generative. Thoughts created action, and humans were capable of intentionally creating thoughts. Bandura's research focused on the impact of self-efficacy on performance and motivation (Bandura, 1986, 1989; Bandura & Wood, 1989). Because this study centered on general education teacher self-efficacy and student achievement, Bandura's social cognitive theory was used to focus on the importance of improving self-efficacy to overcome teachers' negative attitudes and

barriers to effective use of skills. Chapter 2 includes a more detailed explanation of this theoretical foundation.

Nature of the Study

The nature of this study had a mixed-methods focus. The quantitative research question focused on finding if a relationship existed between general education teachers' self-efficacy, specifically focusing on instructing secondary students with disabilities in the general education classroom, and student achievement. The qualitative research question focused on finding what role teacher preparation programs and continuing professional development opportunities played in perceived lower levels of general education teacher self-efficacy. The quantitative aspect of the study included a multiple linear regression analysis to investigate the dependent variable, achievement of secondary students, as well as two independent variables, general education teacher self-efficacy and disability status of students. I summarized data from individual general education teacher interviews to answer RQ2. To increase the sample size, I conducted research in multiple secondary schools across central Nebraska.

Definitions

Academic achievement: A complex idea which consists of multiple realms of learning typically including critical thinking and literacy in core educational areas such as mathematics, science, social sciences, reading, and language (Spinath, 2012).

End-of-chapter and end-of-unit summative assessments: Cumulative assessments which intend to capture what a student has learned; they are also known as *high-stakes assessments*, used to determine how much learning has taken place or how much students

know at the end of segments of instruction before moving on to a new topic (Dixson & Worrell, 2016).

Self-efficacy: The beliefs people hold about their own abilities to generate positive outcomes for others (Bandura, 1994).

Assumptions

In this study, I assumed all general education teachers surveyed came from different levels of education, training, and experience in regard to teaching secondary students with disabilities. Additionally, I assumed classroom assessment data, including quizzes and tests, regarding student performance were an accurate indicator of students' academic achievement because it is used to determine if students are prepared to move on to the next grade in each school. I also assumed general education teachers' reports of student data were true and accurate. Finally, I assumed the surveys from general education teachers reflected an honest and accurate reporting of perceived self-efficacy related to the instruction of secondary students with disabilities.

Scope and Delimitations

I conducted this study in multiple secondary schools in central Nebraska and focused on general education teachers who instruct students with disabilities along with their nondisabled peers in secondary inclusive classrooms. The sample size was made larger due to the ability to use data from multiple secondary schools in the area. A total of 23 general education teachers participated in the quantitative survey portion of the study, and 20 teachers from the same population were interviewed for a greater understanding of reported general education teacher self-efficacy. Teachers in all Nebraska schools

administer classroom assessments in the form of scores from quizzes and tests, so I was able to compare student achievement data. I surveyed and interviewed general education teachers providing instruction in the areas of mathematics, language arts, science, or social science. The dependent variable was student achievement data in the form of scores from classroom administered quizzes and tests for end-of-chapter or end-of-unit summative assessments from all secondary students with disabilities and those without disabilities receiving instruction in the general education environment. Results of this study could be generalizable to other secondary education schools across the United States as well as teacher preparation programs. I chose this specific focus based on my experiences with general education teachers who did not perceive themselves as well-prepared to effectively educate students with disabilities in their classrooms. While it is not unusual for general education teachers to collaborate with special education (SPED) teachers, a dramatic shortage of SPED teachers across the United States drastically limits the availability of this professional resource for general education teachers (West & Shepherd, 2016). Such is the case in school sites selected for this research where multiple general education teachers compete for the help of only one or two special educators. Now, as a current lecturer at the University of Nebraska at Kearney, my hope is this research will provide implications for greater general education teacher preparation and continued professional development related to instructing students with disabilities because collaboration with special educators on a daily basis—or even with consistency—is not widely available. It is also my hope this research will inspire further

research studies regarding general education teacher self-efficacy as it relates to the academic achievement of students with disabilities.

Limitations

Factors such as student maturity, behavior, and socioeconomic status can all influence academic achievement. These factors were unknown with regards to the percentages of the population sample in this research as student achievement data does not separate data based on these factors. Conducting the study in close proximity to my home and work was justifiable bias due to the need for travel to obtain larger sample numbers and to allow for better generalizability of results. This study occurred in schools with a wide range of surrounding community populations, including urban, suburban, and rural. The type of disability students have and any test and quiz accommodations and/or modifications provided for the students with disabilities in the inclusive classroom were unknown.

Threats to reliability and validity were possible due to the use of student achievement data provided by individual participating teachers in participating schools. Because not all classroom achievement quizzes and tests are uniform throughout all schools in this research, differences exist in how teachers assess students with disabilities and those without. However, schools deem such student achievement data as an accurate portrayal of student performance, and it is used to inform decisions regarding whether a student is prepared to move on to the next class or grade. For this reason, classroom student achievement data were a reliable measure of student academic achievement for the purposes of this research. Additionally, limited threats to validity and reliability

existed in this study due to the use of already established measures of teacher self-efficacy.

Significance

This study is significant to all participants on the educational journey, including professionals, students, parents, schools, and communities. Studying the possible relationship between general education teachers' self-efficacy and the achievement of students with disabilities is crucial to helping schools identify potential methods of increasing achievement from research-based evidence. Experts (Cameron & Cook, 2013; Loreman et al., 2013) have focused their attention on the importance of increasing teacher self-efficacy to increase student achievement. Castro-Villarreal et al. (2014) noted the importance of increasing teacher self-efficacy to make positive progress in student achievement. Bernadowski, Perry, and Del Greco (2013) also highlighted the positive effects that increased self-efficacy had on student learning. All this research suggests if general education teachers perceive themselves to be ill-prepared to effectively teach all students, students suffer in their achievement. However, there seems to be a gap in research specifically geared toward finding how general education teacher self-efficacy is related specifically to the achievement of students with disabilities who are taught in an inclusive classroom. This study is especially significant to those teachers, students, and institutions looking for possible reasons students with disabilities are not meeting AYP requirements.

When looking specifically at studies focused on the importance of increasing teacher self-efficacy, I was able to locate further affirmation for the research exclusively

rooted in the observed positive progress for both students and teachers when researchers noted gains to teacher efficacy. Risconscente (2014) and Shahzad and Naureen (2017) discussed when increases to teacher self-efficacy occurred, positive outcomes for both teachers and students were evident. Chang (2015) found specifically increases in teacher self-efficacy affected increases to student achievement likely due to an increase in student self-efficacy. The discussion centered on the importance of increasing teacher efficacy to develop student self-efficacy and ultimately positively influence student achievement. This is significant because the way teachers view their own abilities to teach ultimately affects how students view their abilities to learn from them. Furthermore, teaching self-efficacy may predict actual teaching skills with greater accuracy than cognitive measurements (Walter, 2015). This research could support professional practice by highlighting the necessity to ensure teachers are well-prepared and have high levels of self-efficacy to effectively instruct all students in the general education classroom. It may be possible to provide implications for greater teacher preparation and help schools understand this often-overlooked educational dilemma of low teacher self-efficacy may be part of the problem of students with disabilities not meeting standards.

Summary

It is necessary to ensure general education teachers have a high level of self-efficacy with regards to the enormous demands placed on them to effectively instruct all students, both with and without disabilities, in the classroom. Parents, teachers, and school officials have expressed a need for better preparation of general education teachers to achieve higher levels of self-efficacy as they instruct students with disabilities along

with nondisabled peers in the same environment. This study is important to research because of the specific focus on general education teacher self-efficacy as it relates to the academic achievement of students with disabilities at the secondary level. I presented theoretical framework information via multiple studies, including Bandura (1986, 1989, 1994, 2001) and Bandura and Wood (1989), and focused on teacher self-efficacy and the need for greater teacher preparation as well as the relationship between teacher self-efficacy and student academic achievement. I also identified limitations and assumptions possible in this study. Chapter 2 consists of a literature review and Chapter 3 details the research methods.

Chapter 2: Literature Review

Introduction

The purpose of this research was to determine if a relationship exists between the self-efficacy of general education teachers and the academic achievement of secondary students with disabilities. The problem of students with disabilities displaying low achievement may have been exacerbated by low general education teacher self-efficacy since an increased number of students with disabilities are receiving instruction in the general education classroom (Loreman et al., 2013). There was a gap in the current literature related to the relationship between general education teacher self-efficacy and the achievement of students with disabilities. Many studies I found focused on teacher self-efficacy and student achievement regarding students both with and without disabilities. However, research supports the idea that low teacher self-efficacy can greatly contribute to low student achievement (Chang, 2015; Risconscente, 2014). This chapter consists of a brief synopsis of the literature search strategy as well as the theoretical foundation for this research. A literature review related to key variables is provided in detail and is followed by a summary and conclusion.

Literature Search Strategy

Numerous search engines were used to locate journal articles related to teachers' self-efficacy and the motivation of students with special needs: Google Scholar, Education Source, ERIC, Education Research Complete, ProQuest Central, Academic Search Complete, and SAGE Premier. The search for related articles produced limited publications in current special education journals. The majority of publications were

found in general and generic education journals. Publications in the background literature are included by leading professionals in the study of teacher self-efficacy and the achievement of students with disabilities at the secondary level.

There was little current research located specifically studying general education teacher self-efficacy and the achievement of secondary students with disabilities, so I broadened my search terms. When searching the multiple research databases, key search terms included *teacher efficacy, self-efficacy, students with disabilities*, and *academic achievement*. These search terms were used in combination with one another to narrow research results. Additionally, the terms *general education teacher self-efficacy* and *student achievement* resulted in valid articles. The scope of the literature review primarily consisted of the years 2013 through 2018 to keep research as current as possible. Sources searched included peer-reviewed journal articles, dissertations, books, statistics, and assessments. However, when specifically researching theories related to self-efficacy, I broadened the years searched to include as far back as 1960 when Bandura began publishing theories related to social learning and self-efficacy.

Theoretical Framework

Humans are much more capable of controlling thoughts and emotions than often thought (Bandura, 2005). This proposed study is based on Bandura's (2001) social cognitive theory which centers on human cognitive processes and developing brain activities. Essentially, Bandura suggested individuals are capable of being proactive with thoughts as opposed to consistently being reactive (Bandura, 1986). This means humans are creative and generative with thoughts and can use their thoughts to create actions. The

social cognitive theory evolved from a long process of research involving experiments designed to test the notion that humans adjust behavior based on development and experiences (Bandura, 2005). This research began in the early 1970s and continually expanded into the social cognitive theory used for this research.

The purpose of this study centered on general education teacher self-efficacy and the achievement of students with disabilities at the secondary level. I selected Bandura's social cognitive theory as the theoretical foundation because of its focus on increasing self-efficacy to promote progress. Self-efficacy is defined as the beliefs people hold about their abilities to effectively carry out any given task (Bandura, 1994). Bandura's (1996) social cognitive theory discussed the importance of teachers increasing their self-efficacy to improve their teaching skills. When teachers do not feel well -prepared to effectively instruct individuals in the learning environment, their self-efficacy is low.

Low teacher self-efficacy can have a negative impact on students. Bandura (1986, 1989) and Bandura and Wood (1989) focused their research on the impact self-efficacy had on student performance and motivation and highlighted the importance of growing teacher self-efficacy to increase achievement. Bandura, throughout years of self-efficacy research, consistently discussed the role teacher self-efficacy played in student functioning and cognitive development. Specifically, Bandura (1993) stated teachers' beliefs in their own abilities "to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve" (p. 117). It is possible, through a thorough review of the literature, low general

education teacher self-efficacy acts as a roadblock to sufficient academic achievement on behalf of secondary students with disabilities.

Multiple researchers have used Bandura's social cognitive theory as a basis for self-efficacy studies. Shahzad and Naureen (2017) cited Bandura as the foundation for a study focusing on how teacher self-efficacy affects secondary school students' academic achievement. Additionally, Chears-Young (2014) discussed math teachers' moral judgment and self-efficacy related to student achievement and used Bandura's work as the footing for research. The hypothesis behind this particular study focused on the possibility there was a relationship between general education teacher self-efficacy and the achievement of secondary students with disabilities. Because Bandura (1993) focused so much of his social cognitive theory on the ability of teachers to have a large impact on student success either positively or negatively, depending on their level of self-efficacy, the assumption was general education teacher self-efficacy had a strong relationship to the achievement of students with disabilities.

Bandura's social cognitive theory related directly to this research because of the focus on self-efficacy and achievement and, in fact, may build on the theory even further. Bandura's theory never specifically focused on the effects teacher self-efficacy had on achievement among students with disabilities, but rather on all students collectively. Individuals with disabilities often struggled with self-efficacy themselves (Lawler, Joseph, & Narula, 2014). Therefore, it is possible the social cognitive theory could be further discussed to relate specifically to those with more challenges to cognitive processing.

Literature Review Related to Key Variables

This literature review was motivated by the research question to find if general education teacher self-efficacy is connected to the achievement of secondary students with disabilities. I focused specifically on four areas to gain a deep understanding of the literature: (a) general education teacher responsibilities, (b) teacher self-efficacy, (c) academic achievement, and (d) implications for teacher development. Even with much research focusing on teacher self-efficacy, many researchers have noted the importance of further studies focusing on the topic related to student outcomes (Hamman, Lechtenberger, Griffin-Shirley, & Zhou, 2013). Self-efficacy has been studied extensively but with little emphasis on general education teacher self-efficacy concerning instructing students with disabilities in the secondary general education environment. Researchers have not previously compared achievement outcomes for both sets of students—those with disabilities and those without—to determine if findings were more significant for one group of students over the other related to general education teacher self-efficacy. One survey, Ruble, Toland, Birdwhistell, McGrew, and Usher's (2013), Autism Self-Efficacy Scale for Teachers did measure the self-efficacy of teachers, but only for those working with students with autism as opposed to all disabilities. Another established survey was noted multiple times throughout the literature; Tschannen-Moran and Woolfolk Hoy's (2001) teachers' sense of efficacy scale was categorized into three parts: (a) efficacy in student engagement, (b) instructional strategies, and (c) classroom management. But the scale did not adequately address the dependent variable, academic achievement of students with disabilities. In fact, students with disabilities were not

mentioned in the study when the researchers discussed the construction of the teachers' sense of efficacy scale as this was not the focus of their research. With general education teacher self-efficacy concerning the instruction of students with disabilities in the inclusive classroom being the focus of this study, I devoted more attention to inclusive methods in a teacher self-efficacy scale. After further research, I concluded the teacher efficacy for inclusive practice (TEIP) scale most accurately addressed the research question involving general education teacher self-efficacy related to instructing students with disabilities in an inclusive classroom (Sharma et al., 2012). The TEIP scale consisted of 18 questions categorized into three parts: (a) efficacy to use inclusive instructions, (b) efficacy in collaboration, and (c) efficacy in managing behavior. All three parts of this scale were crucial to this research due to my ultimate intention to allow general education teachers to open up a dialogue with public school administrators, and possibly with administration in teacher training programs at higher education institutions, to convey the needs and desires for greater preparation to meet the ever-increasing needs of students with disabilities in their classrooms. The TEIP scale measures not only efficacy to use inclusive instruction but also to effectively collaborate with special educators and other experts in the field of SPED to continuously increase knowledge and skills and to manage challenging behavior often a direct result of the students' disability (Sharma et al., 2012). By using the TEIP scale for this research, greater and more focused conversations concerning needs for general education teachers to increase their self-efficacy may be possible. I gave this established and peer-reviewed scale to accurately measure an independent variable, general education teacher self-efficacy, and to provide

a thorough view of self-efficacy skills related specifically to instructing students with disabilities in the inclusive classroom.

General Education Teacher Responsibilities

Inclusion of students with disabilities in the general education environment has increased dramatically in the past 40 years since the Education for All Handicapped Children Act (1975). With its passing came ever-increasing responsibilities for general education teachers. More recent legislation mandated all states be held accountable for the continuously progressing academic achievement of all students, including and especially those with disabilities (No Child Left Behind Act, 2002). Furthermore, the Individuals with Disabilities Education Improvement Act (2004) required the individual needs of students with disabilities be considered during education planning to ensure accommodations were provided in the general education environment for those students with exceptionalities. An analysis of inclusion rates across the United States found Nebraska heavily favored inclusion, meaning pressures on general education teachers in Nebraska were endlessly growing (Heasley, 2014). Katz (2015) stated the huge workload associated with students with disabilities being educated in the general education classroom was an enormous stressor for general education teachers and contributed to their low self-efficacy. This vast workload was characterized by the planning for multiple classes and a wide range of disabilities simultaneously, constant monitoring of behavior plans, and attempts to find solutions related to problems with assessing students with disabilities along with nondisabled peers (Katz, 2015). Ever-increasing demands, including not only content area knowledge but also knowledge of how individual children

learn, to educate appropriately to a wide range of abilities were being placed on general education teachers to effectively instruct individuals with disabilities along with their nondisabled peers (Shoulders & Scott Krei, 2016). Patterson and Seabrooks-Blackmore (2017) used a mixed-methods approach and concluded preservice teachers often exhibited low self-efficacy and did not feel confident in their abilities to effectively instruct all students. The researchers further discussed recommendations for improving teacher preparation programs (Patterson & Seabrooks-Blackmore, 2017); more details for such implications are provided in a later section of this literature review. Other researchers have also reported general education teachers have expressed their training was inadequate to successfully meet the needs of students with disabilities (Cameron & Cook, 2013; Lindsay, Proulx, Thomson, & Scott, 2013; Loreman et al., 2013). Using interview methods to discuss goals and expectations general education teachers held for their students, including students with disabilities, Cameron and Cook (2013) discussed challenges for these inclusive classroom teachers; issues included learning which portions of the general education curriculum were appropriate for students, when and how to instruct students using the general education curriculum, and when and how to address the behavioral, functional, and social goals set for students. Additionally, general education teachers of students with autism spectrum disorder, indicated in a study using qualitative interview methods they desired more training in understanding and managing behavior of these students with disabilities (Lindsay et al., 2013); those same teachers also mentioned sociostructural barriers, including school policies and a lack of training and resources, as challenges to their effective instruction of students with disabilities in

an inclusive classroom. Much evidence supports the need for further research concerning the self-efficacy of general education teachers instructing students with disabilities.

One of the greatest problems arising from general education teacher low self-efficacy has been its impact on teacher performance. In a study centering on teacher and student behavior in inclusive education, using a time-sample behavior analysis focused on academic engagement, problem behavior, and off-task behavior, Yildiz (2015) concluded many general education teachers held negative attitudes about the education of students with disabilities in the general education classroom. Furthermore, the results showed the achievement of students with mild intellectual disabilities in inclusive classrooms was closely related to teachers' behaviors (Yildiz, 2015). However, the study did not include a comparison to students without disabilities. Holzberger, Philipp, and Kunter (2013) also reported, using longitudinal analyses, general education teachers had low self-efficacy in teaching students with disabilities and such an issue negatively impacted their instruction, job performance, job satisfaction, stress, and burnout. Furthermore, in a study focused on teaching stress and efficacy, perceived stress from teachers' workload and self-efficacy were directly associated with job satisfaction (von der Embse, Sandilos, Pendergast, & Mankin, 2016). While the study did not directly focus on students with disabilities in the inclusive classroom, it did center on teacher efficacy for student engagement, classroom management, and instruction with a wide range of student abilities in the classroom (von der Embse et al., 2016). When teachers did not fully believe in their abilities to effectively accomplish their increasing responsibilities in the general education environment, it negatively impacted teaching in

multiple ways, including job satisfaction and performance, stress, behavior management, and appropriate curriculum selection and instruction (Cameron & Cook, 2013; Lindsay et al., 2013, von der Embse, 2016).

Teacher Self-Efficacy

Researchers consistently found both pre-service and in-service teachers struggled with low self-efficacy regarding their abilities to effectively educate individuals with disabilities. Malinen et al. (2013) discussed the low self-efficacy teachers experienced when teaching students with disabilities in the general education classroom. Even more challenging to overcome was the low self-efficacy levels exhibited by educators in the secondary setting to effectively instruct students with disabilities because of the content-driven nature of instruction and lack of adequate teacher preparation (Montgomery & Mirenda, 2014). But low self-efficacy was much more than teachers not believing in their own abilities to accomplish tasks. Teacher self-efficacy was found to greatly impact many areas. Kormos and Nijakowska (2017) talked about the negative attitudes teachers portrayed toward the inclusion of students with dyslexia when the teachers felt ill-prepared to effectively educate them. Low self-efficacy was also found to negatively impact job satisfaction, emotional exhaustion, and even job engagement (Skaalvik & Skaalvik, 2014). Due to the low self-efficacy often displayed by teachers attempting to effectively educate all students, including those with disabilities, in the same learning environment, negative outcomes were frequently present.

On a positive note, teachers with higher levels of self-efficacy had more encouraging outcomes. Sharma, Shaukat, & Furlonger (2015) found teachers with greater

preparation in instructing students with disabilities in the inclusive classroom had higher levels of teaching self-efficacy and also had more positive attitudes toward the inclusion of individuals with disabilities in the general education classroom. Additionally, teachers were found to be more focused on achieving goals and improving their instructional strategies when they had higher levels of self-efficacy (Ozkal, Demirtas, Sucuoglu, & Guzeller, 2014). Levi et al. (2013) discussed teachers' self-efficacy levels greatly impacted the learning of students diagnosed specifically with learning disabilities. Interestingly, teachers with higher self-efficacy levels were more likely to exhibit behaviors of fostering creativity from their students (Ozkal, 2014). In essence, teachers with higher self-efficacy levels were much more likely to have a positive outlook on their profession and to continuously strive to improve their methods.

Academic Achievement

Multiple researchers directly studied self-efficacy related to student achievement and motivation. Research has shown over and over teachers with higher levels of self-efficacy positively impact their own beliefs about student behaviors effectually improving classroom instruction and positively affecting student achievement (Miller, Ramirez, & Murdock, 2017). Shahzad and Naureen (2017) discussed teacher self-efficacy had a positive influence on student achievement. Risconscente (2014) also provided information regarding the effects teacher self-efficacy had on student motivation and academic achievement. Furthermore, student achievement was also affected by teachers' classroom perceptions, an aspect of teaching greatly influenced by teacher self-efficacy (Gilbert et al., 2014). While these particular studies did focus on the

importance of high teacher self-efficacy for increasing academic achievement, limited teacher self-efficacy research focused specifically on academic achievement outcomes for students with disabilities, so this portion of the literature review revealed more evidence for the need of this particular study.

Changes to Education Regarding the Inclusion of Individuals With Disabilities

Every year, more and more research can be found regarding teacher preparation for inclusive practices. Both before employment, through teacher education programs, and after employment, via professional development opportunities, research for this study consistently showed more training for general education teachers is needed due to substantial changes to education regarding the inclusion of individuals with disabilities. Schneider (2018), in a chronological study of past to present teaching practices, discussed this significant change to education, primarily with the inclusion of individuals with disabilities in the general education environment. His study revealed a regression to practices of the past as opposed to forward-thinking preparation and inclusive methods. Similarly, Blanton, Pugach, and Boveda (2018) provided a historical analysis of changes to teacher education beginning in the 1970s. The researchers discussed essential instances in which general and special education must collaborate at every stage of teacher education reform due to the substantial changes to the educational environment through the years. Livingston (2016) stated:

> The speed and complexity of changes in society signal the need for teacher educators and teacher education programmes to be more proactive and prominent in their contribution to the change process. New ways of understanding

> knowledge and how we learn; new and powerful technologies; new patterns of integration and new migration flows across the world need more dynamic forms of teacher education. (p. 1)

In summary, substantial changes to education, especially regarding the inclusion of individuals with disabilities in the general education environment, have created a problem for schools since teachers are not always prepared to meet the ever-changing needs of all their students.

Implications for Teacher Development for Inclusive Practice

Nearly every study found in this literature review focusing on teacher self-efficacy provided implications for greater teacher preparation. Montgomery and Mirenda (2014) stated many teachers lacked the essential preparation to implement evidence-based practices and effectively instruct all students in inclusive classrooms. They discussed the importance of better preparing those teachers for the reality of being an educator today. Gao et al. (2014) also discussed implications for the development of effective teacher education programs to increase teacher self-efficacy. Most commonly, SPED teachers had much higher levels of experience, education, and self-efficacy than did general education teachers when it came to educating individuals with disabilities (Corona, Christodulu, & Rinaldi, 2017). Personal character and teacher preparation were extremely important for teachers to achieve high levels of teaching self-efficacy (Lim & Kim, 2014). Wagner and Imanel-Noy (2014) emphasized the benefit of unique teacher preparation programs in increasing teacher motivation and self-efficacy. Hutzler and Barak (2017) also provided implications for general education teachers to receive greater

training to effectively instruct individuals with disabilities. Furthermore, Hart and Malian (2013) focused on the importance of targeted teacher preparation to effectively educate students with autism spectrum disorders and discussed a model for the collaboration of universities and state teacher licensure organizations. Zagona, Kurth, and MacFarland (2017) discussed a relationship between teachers' readiness for inclusive education and whether they had received special training or had taken university courses regarding inclusive education. Implications for greater teacher preparation for inclusive practices before employment were discussed. Researchers have studied self-efficacy extensively, and scholars (Hutzler & Barak, 2017; Lil & Kim, 2014; Wagner & Imanel-Noy, 2014; Zagona et al., 2017) continuously highlighted implications for greater teacher preparation, primarily due to the enormous changes related to the inclusion of individuals with disabilities in the general educational environment over the years.

While more teacher preparation before employment is necessary, there is also a need for continued education of instructors already teaching in the field. There are multiple studies focusing specifically on the importance of continuing education for in-service teachers. Creating specialized training opportunities for teachers was a critical step toward achievement of more positive teacher perceptions and efficiency when working with individuals with disabilities (Yada & Savolainen, 2017). Peebles & Mendaglio (2014) found teachers with prior experience teaching individuals with special needs had higher levels of self-efficacy than pre-service teachers. Findings of the study portrayed the importance of continued teacher preparation for both pre-service and in-service teachers to enhance their qualifications for providing instruction to individuals

with disabilities (Peebles & Mendaglio, 2014). Additionally, Deris and Di Carlo (2013) focused on the need for specialized training and modifications to classrooms already serving young children with specific disabilities. It was possible to provide effective instruction and greater training to general education teachers via professional development activities (Althauser, 2015). Furthermore, Peter (2013) discussed even SPED teachers were in constant need of sustained professional development activities; this was due to the growing expectations placed on all teachers. With this in mind, it is possible to provide enriching training to all educators to foster higher levels of self-efficacy and increase collaboration between general and SPED teachers and achieve better outcomes for all students.

Summary and Conclusions

This literature review revealed multiple negative effects that low general education teacher self-efficacy can have on student achievement as well as a large number of positive student outcomes stemming from higher levels of teacher self-efficacy. In regards to general education teachers, it is known that low self-efficacy negatively impacted teaching in multiple ways including job satisfaction and performance, stress, behavior management, and appropriate curriculum selection and instruction (Cameron & Cook, 2013; Lindsay et al., 2013; von der Embse, 2016). However, it is not known how general education teacher self-efficacy relates specifically to the academic achievement of students with disabilities. This is where this research intends to fill that gap. Developing more effective teacher education programs is certainly a method to be highlighted as a means of increasing teacher self-efficacy and thus

improving student achievement. Additionally, it is important to implement more targeted and intense training for teachers already actively educating individuals with disabilities in the general education classroom. Chapter 3 focuses specifically on the gap concerning teacher self-efficacy as it relates to the achievement of secondary students with disabilities and those without for comparison to analyze the strength of any noted relationship.

Chapter 3: Research Method

Introduction

In this mixed-methods study, I sought to determine if general education teachers' self-efficacy was related to the academic achievement of secondary students with disabilities. Student achievement has been positively impacted when teachers have a positive sense of self-efficacy (Risconscente, 2014). Additionally, teachers with low self-efficacy have had a negative impact on student achievement (Holzberger et al., 2013). However, few past studies have focused on general education teacher self-efficacy specifically related to secondary students with disabilities and their academic achievement. Through this research, I first attempted to help schools in addressing the problem of secondary students with disabilities not meeting AYP due to a possible relationship between the independent variables, general education teacher self-efficacy and disability status of students, and the dependent variable, achievement of secondary students. Through a second research question, I focused on the roles teacher preparation programs and continued professional development opportunities play in perceived general education teacher self-efficacy levels. This chapter details research methods for the study. I provide a rationale for the chosen research design and discuss methodology with information regarding the setting, population, sampling procedures, data collection and analysis, and instrumentation. Additionally, I discuss threats to validity and ethical procedures.

Setting

This study took place in multiple schools in central Nebraska. It was important to include general education teachers from schools with a variety of student populations to allow for greater generalization and transferability of research results. I invited general education teachers who instruct students, both with and without disabilities, in the areas of language arts, mathematics, science, or social science to participate. Since teachers were asked to complete a survey and provide classroom assessment data for students with and without disabilities, it was key to receive permission from school superintendents to invite teachers to participate and provide confidential data. Additionally, after the initial quantitative data collection portion, teachers from the same population were invited to participate in an in-person interview to further explore perceptions and expectations of teachers with self-reported lower levels of self-efficacy related to preparation and professional development for inclusive classrooms.

Research Design and Rationale

The nature of this study had a mixed-methods focus. To increase the sample size, I conducted research in multiple secondary schools in the nearby educational service units. My current position as a lecturer at a local university did not interfere with the relationship established with the participating general education teachers and helped with time and resource constraints as I typically do not travel to campus on Fridays and was able to conduct research on those days. Creswell (2012) noted mixed-methods designs provide a greater understanding of the research problem and question than either quantitative or qualitative methods alone can. Such was the case in this study. For the

quantitative portion of the study, teachers reported self-efficacy levels related to instructing students with disabilities along with nondisabled peers in their classrooms using an already established survey.

The quantitative research question focused on finding the strengths of any relationship between general education teachers' self-efficacy related to instructing students with disabilities in the inclusive classroom. This first portion of the study included two independent variables, general education teacher self-efficacy and whether students had a disability, and one dependent variable, students' academic achievement. By focusing on the academic achievement of students both with and without disabilities, I was better able to analyze the strength of any relationship found. Quantitative research is consistent with finding relationships between data sets and analyzing the strength of any noted relationship (Creswell, 2012). I investigated the independent variables using regression analysis as I attempted to determine if general education teacher self-efficacy was related to academic achievement for students with and without disabilities. Students in the districts of the locations of the study often have the same teacher for 4 years, which helped to control for variables which may have interfered with the data collected.

The qualitative portion of this study included interview questions designed to further investigate the roles of teacher preparation before employment and continued professional development opportunities for general education teachers already in the field in perceived lower levels of self-efficacy regarding inclusive practices. To allow for a deeper understanding of the research questions, I asked general education teachers to further explain their challenges with teaching students with disabilities along with

nondisabled students. I asked teachers to expand in an attempt to understand the role teacher preparation programs and continuing professional development opportunities have in these perceived lower levels of teacher self-efficacy. The various data gathered throughout this study allowed for limited generalizability and transferability to local school district stakeholders and teacher preparation programs.

Role of the Researcher

As the researcher, my role included data collection with the general education teachers. Self-efficacy survey, classroom assessment, and interview data were all collected via general education teachers, and I made no contact with students. Additionally, no names or disability information were provided. Some of the participating teachers were former coworkers and current personal friends, but I had no administrative or supervisory power over participants. I offered a $5 Amazon gift card as incentive for potential participants to complete the quantitative survey and then to agree to an in-person interview in reach a larger number of participants. Interested teachers provided their e-mail address and a gift card was digitally sent via Amazon on return of the survey or completion of the interview. In the quantitative portion of the study, biases were managed by complete confidentiality of the returned self-efficacy survey and classroom assessment data via postal mail or online survey; I did not collect participants' names. Additionally, I hired a quantitative data analysis expert. Furthermore, in the qualitative portion of the study, I managed biases by asking interview participants to review the results of the qualitative analysis. I also reviewed findings with qualitative research peers at my university of employment.

Methodology

The following sections include details of the chosen methodology for this research based on the literature review. I discuss population and sampling procedures. Additionally, I detail instrumentation used for teacher surveys and classroom achievement data for secondary students with disabilities.

Participant Selection

The sites for this research included multiple public schools in Nebraska within a drivable distance. The research population consisted of public general education teachers who provided instruction to students with disabilities in an inclusive classroom during the Spring 2017 semester. Teachers who delivered education in the areas of language arts, mathematics, science, or social science were the target population since students with disabilities receive instruction from them (National Center for Education Statistics, 2015). It was my goal to obtain a population of greater than 100 general education teachers to acquire the largest sample possible. To do this, I contacted 33 public schools near my home as possible sites for research. After receiving approval from superintendents in six public schools, I e-mailed general education teachers and invited them to participate in the study.

When individuals are willing to participate in a study and are readily available, researchers recommend a convenience sample (Fink, 2006). The convenience sample in this research consisted of all general education teachers providing secondary instruction, Grades 7 through 12, in language arts, mathematics, science, or social science during the Spring 2017 semester in the nearby public schools. I found teacher contact information

through district websites detailing teacher job titles and e-mail addresses. The general education teachers' employers provided permission to contact the teachers and to ask for student achievement data from students with and without disabilities in the Spring 2017 semester as well as their completed teacher self-efficacy scales for comparison. I invited teachers to participate because of their roles in instructing secondary students with disabilities in an inclusive classroom in the areas of mathematics, language arts, social science, or science. I determined sample size based on how many school districts were willing to allow their general education teachers to voluntarily participate in the self-efficacy survey and to provide classroom assessment data analysis from students with disabilities and those without. A total of 23 general education teachers participated in the quantitative portion of the study by submitting a completed TEIP scale and enough student achievement data from students with and without disabilities in the Spring 2017 semester to allow for data comparison. In total, student achievement data were provided for a total of 422 students from the participating general education teachers. Of those students, 273 did not have a verified disability and 149 did. After completion of quantitative data analysis, 20 general education teachers from the same population consented to an in-person interview to discuss reported lower levels of self-efficacy.

Instrumentation

A thorough review of the literature revealed the TEIP scale was the best option for the quantitative portion of this research. Developed by Sharma et al. (2012), the TEIP scale consisted of 18 questions categorized into three parts: (a) efficacy to use inclusive instructions, (b) efficacy in collaboration, and (c) efficacy in managing behavior. The

authors created the 18-item scale from a sample of 607 preservice teachers. Researchers selected these teachers from four specific areas: Australia, Canada, Hong Kong, and India. The alpha coefficient was 0.89 for the full scale including all three areas. Alpha coefficients for the three parts individually ranged from 0.85 to 0.93. A reliability analysis revealed the scale provides a reliable measure of teacher self-efficacy for inclusion. This measure fit this research because of the already-established reliability. I retrieved the TEIP scale for free from the ERIC database within Walden University's library and I have provided it in Appendix A. I obtained permission from Sharma via e-mail to use the TEIP scale for this research (Appendix B).

One of the independent variables, general education teacher self-efficacy, was measured using the TEIP scale detailed above. These scores represented an accurate degree of general education teacher self-efficacy since the TEIP scale measured three crucial areas needed for this research to apply specifically to general education teacher self-efficacy as it related to instructing students with disabilities in an inclusive classroom: (a) efficacy to use inclusive instructions, (b) efficacy in collaboration, and (c) efficacy in managing behavior. The information for the second independent variable, whether students had a disability, was provided by the participating general education teachers through a collection of classroom assessment data form as they reported scores of students with disabilities and scores of students without disabilities at different locations on the form. I measured the dependent variable, academic achievement, using provided classroom assessment data in the form of end-of-unit and end-of-chapter summative assessment scores provided by the general education teachers. These scores

accurately represented the academic achievement of students because summative assessment scores are used by school districts to determine whether students have retained the knowledge needed to move on to the next class or grade. I compared this classroom assessment data to the scores derived from the TEIP scale for general education teachers as well as to whether the students had a disability, and I used multiple linear regression analysis, detailed in the next section, to find if a relationship existed.

After data analysis from the quantitative portion was complete, I created 13 interview questions to expand on survey data. These questions were based on reported general education teacher self-efficacy levels which averaged less than 5.0 on a the 6.0 TEIP scale with 23 teachers reporting. Appendix D includes the developed interview questions. Because researchers such as Conderman et al. (2013) discussed such improved teacher training programs were necessary for greater student success, I developed these interview questions to explore more about how teacher training programs and continuing professional development opportunities may or may not have contributed to the lower levels of reported teacher self-efficacy.

Procedures for Recruitment, Participation, and Data Collection

Before contacting any general education teachers or collecting any data, I obtained written permission from all participating school districts via the superintendent. To receive such written permission, I e-mailed an informational packet to all possible participating secondary public schools and followed up with a phone call for clarification. This package consisted of the general education teacher self-efficacy survey instrument being used for this research (Appendix A), the Collection of Classroom Assessment Data

Form (Appendix C), a Letter of Implied Consent for participating teachers, Invitation to Participate, and permission to survey teachers and analyze classroom data. Once I obtained school district approval, participating teachers were identified using school district websites and were either hand-delivered or e-mailed, depending on the school district's preference for contact, a participant package including an invitation to participate letter along with voluntary participation and confidentiality information, the survey, collection of classroom assessment data form, and letter of implied consent.

General education teachers providing instruction in the areas of language arts, mathematics, science, or social science who taught in the Spring 2017 semester were asked to voluntarily participate in completing the survey and collection of classroom assessment data form. Participants gave consent by simply returning the completed survey and data collection form for the quantitative portion of the study. End-of-chapter and end-of-unit summative assessment terms were described in detail on the Collection of Classroom Assessment Data Form to ensure teachers understood what classroom assessment data were needed for this research. Teachers completed surveys via postal mail in a preaddressed, prepaid envelope or by using the electronic versions of materials distributed via e-mail (based on school district preference) and participants exited the quantitative portion of the study once they had returned their completed survey and student achievement data. Participants had no follow-up procedures required.

After quantitative data analysis and creation of qualitative interview questions based on general education teacher responses to TEIP survey questions, teachers from the same population were invited to participate in in-person interviews via e-mail. For

interview consent, teachers replied with "I consent" via e-mail, after I sent an informational packet containing the interview questions as well as the Interview Letter of Consent. After receiving consent, I scheduled individual interviews with general education teachers. No follow-up procedures were required of participants for the qualitative portion of the study.

Classroom Assessment Data

From the same general education teachers who I collected self-efficacy data for, I also collected classroom assessment data in the form of end-of-chapter and end-of-unit summative quizzes and tests for the Spring 2017 semester for those students with and without disabilities whom were taught in each participating general education teacher's classrooms. I specifically analyzed data from students with disabilities and those without in Grades 6 through 12 to allow for greater data comparison and to analyze the strength of any noted relationship found between general education teacher self-efficacy and students' academic achievement. To gain access to the data set, I obtained written permission from the districts as was detailed in the previous section. I asked general education teachers to provide classroom assessment data from both end-of-chapter and end-of-unit summative quizzes and tests because not all teachers administer the same type or number of assessments. This allowed for a larger data set. Appendix C consists of the Collection of Classroom Assessment Data Form which I gave to all participating general education teachers either in paper or electronic form (using Google Forms). I considered standardized tests for use but deemed them unreliable for this research due to issues with data not being identified by teacher. For this reason, classroom assessment

data were the primary form of data collection for the dependent variable. I maintained complete confidentiality by assigning general education teachers a number and by coding all forms specifically for that teacher as he or she provided both a completed TEIP scale as well as student assessment data. For example, "Teacher 1" appeared on all materials delivered specifically to one teacher to ensure the students were compared to the correct teachers and to find if a relationship existed.

Data Analysis Plan

For the quantitative portion of the study, I worked with a statistician, who signed a confidentiality statement, to control for human error of this data analysis. The research question focused on finding if a relationship existed between general education teacher self-efficacy and the achievement of students with disabilities. I used a multiple linear regression analysis to compare two independent variables to the one dependent variable and find if general education teacher self-efficacy was related to both students with and without disabilities' academic achievement to allow for data comparison if a significant relationship was found (Creswell, 2012). I collected and analyzed data from multiple districts over the course of nine months to achieve as large a sample as possible. I hypothesized academic achievement of secondary students with disabilities was significantly related to general education teacher self-efficacy. The null hypothesis was academic achievement of secondary students with disabilities was not significantly related to general education teacher self-efficacy. Using a Likert-type TEIP scale with summative assessment scores of students both with and without disabilities in the Spring

2017 semester provided by participating general education teachers, I coded data for comparison.

Qualitative data consisted of interviews which I conducted, recorded, and transcribed. The qualitative data analysis began with "immersing one's self in the data" as described by Ulin, Robinson, and Tolley (2005). Belotto (2018) provided strategies for manual qualitative data analysis. During and after interviews, I continually read and re-read the transcriptions in an effort to constantly familiarize myself with the information received. This allowed me to contact interviewees and ask for clarification as discrepant cases emerged. For the qualitative data analysis, a preassigned coding system, established by the interview questions, helped me first organize the data. I then used coding strategies to identify perspectives held by subjects concerning their teacher preparation as well as needs related to increasing general education teacher self-efficacy for inclusive teaching. I manually coded data by highlighting sections of transcribed interviews and noting comments in margins to allow for emerging themes and subtle trends.

Threats to Validity

Threats to validity and reliability in this study were limited because of the use of an already established general education teacher self-efficacy measure for the quantitative portion. A threat to internal validity did exist in the fact that classroom assessment data in the form of quizzes and tests were not uniform throughout all teachers surveyed. However, quiz and test grades are used by schools to determine progress and decide if students are prepared to move on to the next class or even grade. Additionally, maturation of students was unknown. Furthermore, I assumed teachers completing the TEIP scale all

had different levels of education, knowledge, and experience. The bias of this research, being conducted in multiple schools within close proximity to my home, was justified due to the need to find if low general education teacher self-efficacy contributed to a lack of students with disabilities academic achievement locally. To control for threats to validity related to the qualitative interviews, I asked experts in areas relevant to my research, including qualitative researchers and SPED professionals, to review my questions and verbally assess their relevance to addressing my research questions.

Trustworthiness

To evaluate my analysis of the data, I employed a triangulation method based on an explanatory design in which qualitative data collection followed quantitative to greater explore the general education teacher survey responses (Creswell, 2012). I used data collected from the quantitative portion of the study and compared it to the codes and themes which emerged from qualitative interview data. The quantitative portion of data analysis consisted of a correlational statistical analysis with a trained statistician to ensure accuracy. For the qualitative portion of data analysis, validity occurred as interviewees checked their interview transcriptions to confirm accuracy. Emphasis was placed equally on both quantitative and qualitative findings.

Ethical Procedures

To maintain the highest level of ethics, all possible participating schools received a packet of information detailing this research. The packet included a letter of implied consent, invitation to participate, survey instruments, and permission to analyze students with and without disabilities academic achievement. Before collecting any data, the

Institutional Review Board (IRB) approved the first three sections of the research proposal (approval number 04-13-17-0413561). I obtained written permission from all participating district administrators to survey general education teachers and request classroom assessment data from students with and without disabilities. Once I obtained school administrator permission, I either hand-delivered or e-mailed, depending on school preference, an invitation to participate letter to general education teachers along with information regarding the purpose of the research, voluntary participation, confidentiality measures, risks involved with research, and procedures for returning completed surveys. Because I used classroom assessment data in the form of end-of-chapter and end-of-unit summative quiz and test scores and general education teachers report academic achievement of students with and without disabilities in numbers, this study achieved complete anonymity for data from students with and without disabilities. I provided additional safeguards to all participants by specifying my committee chair and Walden University's Director of Research contact information.

Summary

Through this study, I attempted to help school administrators address the issue of students with disabilities not meeting AYP since general education teacher self-efficacy may predict student academic achievement (Holzberger et al., 2013; Risconscente, 2014). I used the TEIP scale to measure general education teacher self-efficacy and compared data from the scale to classroom assessment data for the academic achievement of students with and without disabilities. By using a multiple linear regression analysis, it became possible to find if general education teachers' self-efficacy was related to the

academic achievement of secondary students with disabilities in the quantitative portion of the study. Because I also studied if a relationship existed between general education teachers' self-efficacy and the achievement of secondary students without disabilities, I was better able to analyze the strength of any noted relationship. With the completion of the quantitative survey portion, I employed a qualitative interview process to further investigate the roles that teacher education programs and continued professional development opportunities played in reported lower levels of general education teacher self-efficacy related to instructing individuals with disabilities in the inclusive environment. Chapter four will detail results from this research.

Chapter 4: Results

Introduction

High teacher self-efficacy levels have been tied to greater academic achievement for students (Miller et al., 2017). However, this study focused specifically on the achievement of students with verified disabilities. I conducted the quantitative portion of this mixed-methods study first. The primary research question focused on determining if a relationship existed between general education teacher self-efficacy and the academic achievement of students with disabilities. My hypothesis was academic achievement of secondary students with disabilities was significantly related to general education teacher self-efficacy. The null hypothesis was academic achievement of secondary students with disabilities was not significantly related to general education teacher self-efficacy.

Following my quantitative data analysis, I began the qualitative interview process. The second research question focused on the roles teacher education programs and continuing professional development workshops play in the perceived levels of self-efficacy for general education teachers instructing students with disabilities in an inclusive classroom. Chapter 4 focuses on data collection as well as a report of the descriptive and demographic characteristics of the sample population, including how the sample was representative of the population of interest. Additionally, I report results using descriptive statistics and describe an additional statistical test which emerged from the analysis of the main hypotheses. Finally, I summarize the answers to my research questions.

Setting

This study took place in multiple schools in central Nebraska with a variety of student populations. I invited general education teachers instructing students both with and without disabilities in the areas of language arts, mathematics, science, or social science to participate. I sought permission from school superintendents to invite teachers to participate and provide confidential data, and teachers were asked to complete a survey and provide classroom assessment data for students. Additionally, after the initial quantitative data collection portion, teachers from the same population were invited to participate in an in-person interview to further explore the roles teacher preparation programs and continued professional development opportunities played in reported lower levels of self-efficacy.

Data were collected for the quantitative portion of the study at the end of the Spring 2017 semester and continued through the beginning of the Fall 2017 semester. Increased demands placed on teachers during this time frame could have influenced the number of willing participants. Participants' teaching experience ranged from a few months to over 20 years, which provided a greater saturation of qualitative data.

Data Collection

The sample consisted of general education teachers teaching inclusive classes in mathematics, social science, language arts, or science for students in Grades 6 through 12. These teachers were employed in one of six approved districts in central Nebraska. Years of teaching experienced ranged from 1 to more than 20 years. More information regarding the unknowns of the population and sample in this study was provided in

Chapter 1. The sample is representative of the population of interest due to my use of convenience sampling. The convenience sample in this research consisted of all general education teachers providing secondary instruction during the Spring 2017 semester in nearby public schools. The general education teachers' employers provided permission to contact the teachers and ask for student achievement data from students with and without disabilities as well as teachers' completed self-efficacy scales for comparison. I invited general education teachers from the districts in which I received permission to contact them because of their roles in instructing secondary students with disabilities in an inclusive classroom in the areas of mathematics, language arts, social science, or science. I found this information through district websites detailing teacher job titles, and I used both face-to-face and electronic means of inviting them to participate.

The data collection for this study was dependent on me having access to general education teachers. Because I did not receive IRB approval until late in the month of April 2017, I had a limited amount of time to receive district approval and contact teachers before the summer months. In the target population of general education teachers in central Nebraska, teachers are typically released from contract obligations near the middle to end of May and resume duties in the beginning to middle of August. Due to this timing issue, the quantitative data collection process lasted a total of 9 months and resulted in a disappointing number of willing participants. I contacted 33 administrators of public schools within driving distance of my location in central Nebraska and received approval to contact general education teachers and collect data in six school districts over the 9-month period.

After collecting data over many months by traveling to schools and hand-delivering participant packages with minimal participation, my chair suggested some changes to the data collection process. I applied for and received approval through the IRB for changes which included moving from in-person and paper format data collection to electronic means. Using Google Forms, I transferred the consent form, TEIP scale, and collection of classroom assessment data form to electronic versions and began to e-mail the link to all general education teachers in the districts where I had received approval to collect data. Additionally, I offered an incentive of a $5 Amazon gift card for any willing participants who filled out the requested information and submitted it. In all, after 9 months of data collection, a total of 23 general education teachers voluntarily completed the TEIP scale and provided student achievement data for students both with and without disabilities. The TEIP scale and collection of classroom assessment data forms used during the quantitative data collection phase can be found in Appendix A and Appendix C.

The quantitative data analysis which followed data collection revealed a need to thoroughly investigate lower levels of reported general education teacher self-efficacy. At that time, I chose to change my study from solely quantitative to mixed methods. I received IRB approval for a data collection extension as well as a change in procedures so I could contact the population again and interview general education teachers. I contacted the superintendents of the six school districts I had previously completed quantitative research in and asked to reach out to general education teachers one more time to invite them to participate in a face-to-face or telephone interview. I received

approval from all the districts again and began qualitative data collection with questions based on answers they provided regarding their self-efficacy levels during the quantitative data collection phase.

After studying the general education teacher TEIP survey data, I found general education teachers reported they did not always feel prepared to effectively educate students with disabilities along with their nondisabled peers in the general education environment. I formed qualitative interview questions based on average responses of less than 5.0 (agree) on the 6.0 scale. Qualitative data are collected through semistructured interviews to better explore the topic under inquiry (Clark & Vealé, 2018). In all, a total of 20 general education teachers from the same population participated in the qualitative data collection phase. Interviews took place either face-to-face in the participants' schools or over the phone, depending on the teacher's preference. Before the start of each interview, I e-mailed the qualitative interview questions created based on the general education teacher responses to the TEIP scale during the quantitative phase of data collection. These questions guided the interview process and allowed for a deeper understanding of these teachers' perceptions of self-efficacy.

Data Analysis

Because I used a regression analysis in the quantitative portion of this study, covariates did exist. Essentially, I studied two independent variables—general education teacher self-efficacy and disability status of students—to find if they were related to student academic achievement, the dependent variable. The covariates included general education teacher self-efficacy as well as whether students had a verified disability

(disability status). I analyzed the degree to which any noted relationship was significant. Then, I investigated the areas of reported lower general education teacher self-efficacy further through qualitative interviews with the sample.

Following Moustakas' (1994) transcendental phenomenological design for qualitative data analysis, the first step in the qualitative data analysis involved the transcription of all interviews immediately following the interaction. This allowed me to note important quotes from the participants, begin to develop clusters of meaning, and classify data into themes (Moustakas, 1994). I summarized responses from participants for each interview question to answer RQ2. I then searched for themes in support of the answer. I analyzed and managed the data first into nodes and then themes and subtle trends. Nine nodes emerged quickly due to the focused questions asked based on the quantitative data analysis in the first portion of this mixed-methods study. The nodes included (a) self-efficacy, inclusion; (b) self-efficacy, behaviors of students with disabilities (SWD); (c) teacher education (TE) prep, behaviors of SWD; school district support, behaviors of SWD; (d) school district support, inclusive teaching; (e) teacher education prep; (f) inclusive teaching, self-efficacy; (g) SPED law; (h) teacher education improvement suggestions; and (i) school district support for inclusive teaching improvement suggestions. From the nine nodes, seven themes emerged in support of the answer to RQ2.

The next sections of this chapter focus on the study results based on the research questions. Results are derived from the quantitative portion of the study in which 23 general education teachers participated in the TEIP survey and provided classroom

assessment data for students with and without disabilities. Qualitative data from 20 general education teacher interviews taken from the same population as the quantitative data are presented.

Results

RQ1 focused on determining if a relationship existed between the self-efficacy of general education teachers on providing instruction to secondary students with disabilities and those students' academic achievement as measured by their performance on classroom assessments. Results from data gathered for this quantitative portion of the study are presented in the quantitative components section. RQ2 was dedicated to the roles teacher education programs and continuing professional development workshops play in the perceived levels of teacher self-efficacy for general education teachers instructing students with disabilities in an inclusive classroom. Results from data gathered for the qualitative portion of this mixed-methods study are detailed in the qualitative components section.

Quantitative Components

Results of the study varied with multiple interactions tested in two different models based on the sample. I collected data in six secondary schools in central Nebraska whose superintendents provided permission to contact general education teachers to participate. The 23 general education teachers who chose to participate completed the TEIP scale (Sharma et al., 2012) and provided classroom assessment data in the form of quiz and test scores from the Spring 2017 semester for students with and without disabilities. Results are reported and organized by research question.

The quantitative research question was as follows:

RQ1: What is the relationship between the self-efficacy of general education teachers on providing instruction to secondary students with disabilities and those students' academic achievement as measured by their performance on classroom assessments?

The hypothesis was rejected because no significant relationship was found between general education teacher self-efficacy and academic achievement of secondary students with disabilities. Quantitative analysis and results displaying this nonsignificant interaction are detailed in tables and figures below. In the first model tested, shown in Table 1 and Table 2, I included the interaction of teacher efficacy and students with a verified disability with student achievement. Essentially, I investigated the degree to which teacher efficacy and verified disability were related to academic achievement. I used multiple linear regression to relate academic achievement based on a teacher's reported self-efficacy and the fact that the student had a disability. A nonsignificant regression equation was found ($F (3, 418) = 5.079$, $p < .002$), with an R_2 of .035.

Table 1

Model Summary

Model	R	R_2	Adjusted R_2	*SE* of the estimate
1	.188[a]	0.035	0.028	1.11446

a. Predictors: (constant), TE by disability, TE, disability

Table 2

ANOVA

Model	Sum of squares	df	Mean square	F	Sig.
Regression	18.925	3	6.308	5.079	.002[b]
Residual	519.163	418	1.242		
Total	538.088	421			

Dependent variable: Grade

b. Predictors: (constant), TE by disability, TE, disability

Participants' predicted academic achievement was equal to 3.651 – .186 (teacher efficacy) – 1.191 (disability) + .158 (TE by disability), where teacher efficacy was measured on a scale from 1 to 6 and verified disability status was coded as 1. This is shown in Table 3. The academic achievement of students with disabilities increased by a small margin of .158 points for each point of increase in reported teacher efficacy. Neither teacher efficacy nor students' disability status was a significant predictor of academic achievement with the interaction of teacher efficacy and disability on student achievement.

Table 3

Coefficients[a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B.	SE	Beta		
1	(Constant)	3.651	0.568		6.426	0.000
1	TE	–0.186	0.113	–0.099	–1.640	0.102
1	Disability	–1.191	0.940	–0.504	–1.267	0.206
1	TE by disability	0.158	0.188	0.336	0.842	0.400

a. Predictors: (Constant), TE by disability, TE, disability

Frequency Distributions

The following histograms detail the frequencies of reported teacher efficacy levels as well as instances of disability and levels of academic achievement (i.e. grades). Figure 1 displays the frequency of teacher efficacy on a scale of 1 to 6. The TEIP scale used is provided in Appendix A.

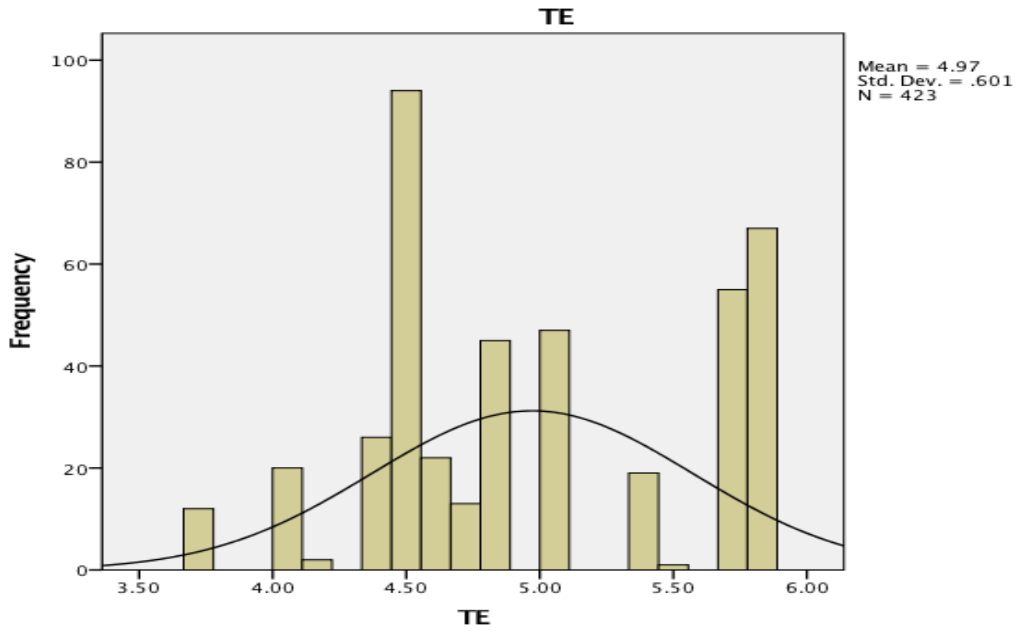

Figure 1. Frequency of Reported Teacher Efficacy

Figure 2 includes a graph of the presence of disability in students whose summative assessment scores were reported by their general education teachers. A score of 1 indicated the student whose data were reported had a verified disability. A score of 0 indicated the student had no disability. Coding through the use of this method allowed for ease of data comparison. It can be seen 273 students whose achievement data were reported by general education teachers did not have a verified disability and 149 students did.

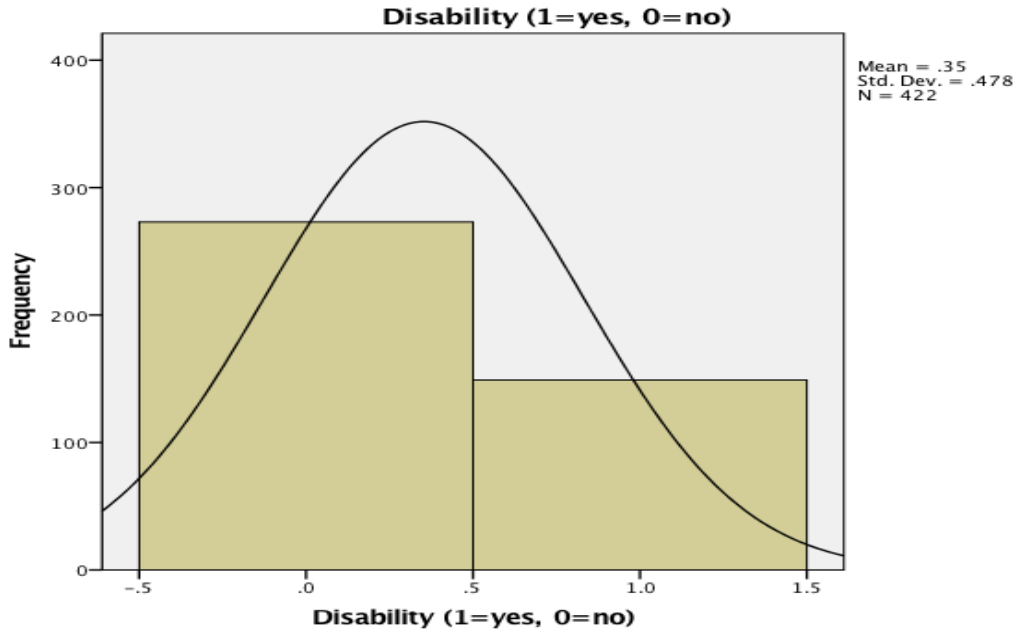

Figure 2. Presence of Disability

Finally, Figure 3 shows the frequency of grades, levels of academic achievement, reported for all students on a 4-point scale. The use of this scale allowed for data comparison since grades are often reported in letter format. The following are equivalent letter grades which were reported by general education teachers: 4.0 = A+ to A; 3.7 = A–; 3.3 = B+; 3.0 = B; 2.7 = B–; 2.3 = C+; 2.0 = C; 1.7 = C–; 1.3 = D+; 1.0 = D; and 0 = F.

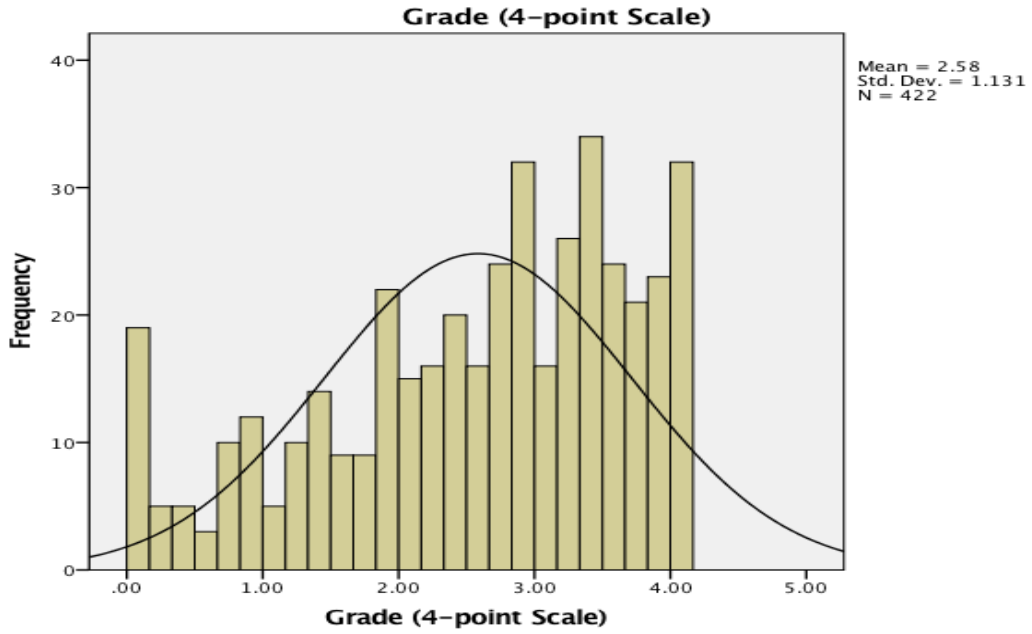

Figure 3. Frequency of Grades Reported

Qualitative Components

During the quantitative portion of this study, general education teachers reported some lower levels of self-efficacy related to instructing students with disabilities in the inclusive classroom; the qualitative research question focused on further studying these professed levels presented and discussed in Data Collection. I investigated the roles teacher education programs and continuing professional development workshops played in the perceived levels of teacher self-efficacy for general education teachers instructing students with disabilities in the inclusive classroom.

I conducted teacher interviews with a sample of 20 general education teachers from the same population used in the quantitative portion of this study. These teachers had already completed the TEIP survey, provided in Appendix A, and then later agreed to be interviewed either via face-to-face or telephone. The following reference scale was

provided in the TEIP survey: 1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = agree somewhat, 5 = agree, 6 = strongly agree. Interview questions were based on general education teacher responses which averaged less than 5.0 on the 6.0 scale as shown in Table 4 below.

Table 4

General Education Teacher Responses

TEIP question	Response average scale rating
I can make my expectations clear about student behavior.	5.5
I am able to calm a student who is disruptive or noisy.	4.8
I can make parents feel comfortable coming to school.	5.0
I can assist families in helping their children do well in school.	5.3
I can accurately gauge student comprehension of what I have taught.	5.1
I can provide appropriate challenges for very capable students	5.3
I am confident in my ability to prevent disruptive behavior in the classroom before it occurs	4.9
I can control disruptive behavior in the classroom.	4.9
I am confident in my ability to get parents involved in school activities of their children with disabilities.	4.0
I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	4.99
I am able to get children to follow classroom rules	5.41
I can collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	5.27
I am able to work jointly with other professionals and staff (e.g., aides, other teachers) to teach students with disabilities in the classroom.	5.33
I am confident in my ability to get students to work together in pairs or in small groups.	5.09
I can use a variety of assessment strategies (e.g., portfolio assessment, modified tests, performance-based assessment, etc.)	5.31
I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	3.87
I am confident when dealing with students who are physically aggressive.	4.37
I am able to provide an alternate explanation or example when students are confused	5.22

Prior to our meeting, I presented all interviewees with an interview guide. This interview guide contained information regarding how the qualitative interview questions

were developed, based off of results from the quantitative portion of the study, the purpose of the interview, and the interview questions. In addition to the questions designed to investigate the reported lower levels of general education teacher self-efficacy, other more focused questions sought to investigate the roles teacher education programs and continuing professional development played in these perceived levels to answer RQ2 and provide recommendations.

I summarized the interview data to answer RQ2: What roles do teacher education programs and continuing professional development workshops play in the perceived levels of teacher self-efficacy for general education teachers instructing students with disabilities in the inclusive classroom? I found general education teachers overwhelmingly had negative feelings about their secondary teacher preparation programs. Any positive self-efficacy levels were attributed to years of experience or SPED collaboration as opposed to teacher education programs. Additionally, the interviewees reported positive feelings related to their current school district support; they contributed such positivity to strong collaboration with SPED professionals, administration, and counselors. Table 5 below includes a summary of participant responses to interview questions:

Table 5

Summary of Participant Responses

Interview question	Summary of participant responses
1. How many years have you been teaching?	1–33 years
2. How many years have you been teaching students with disabilities in the inclusive environment?	1–20 years
3. How many inclusive courses do you currently teach? What are the general ages of the students with disabilities in your courses?	0–9 courses, 11–21 years old
4. What kinds of inclusive settings are in use in your classroom? (pull-out instruction, co-teaching, classroom accommodations, etc.)	Classroom accommodations (19 mentions), para support (16 mentions), pull-out instruction (13 mentions), resource room anytime use (6 mentions), SPED collaboration (6 mentions), co-teaching (4 mentions)
5. How do you feel about your abilities to effectively instruct students with disabilities in your classroom in comparison with students without disabilities?	Positive (11 interviewees), Neutral (6 interviewees), Negative (3 interviewees)
6. How do you feel about your abilities to effectively control disruptive behaviors of students with disabilities in your classroom? Why?	Positive (15 interviewees), Neutral (3 interviewees), Negative (2 interviewees)
7. How did your teacher education institution prepare you for handling disruptive behaviors of students with disabilities in the inclusive classroom?	Negative feelings (17 mentions), higher self-efficacy levels attributed to years of experience as opposed to teacher education (8 mentions), Need for more SPED classes (6 mentions), Need for more SPED field experiences (5 mentions)
8. How does your current school district support you in handling disruptive behaviors of students with disabilities in your classroom?	Positive feelings (17 interviewees), Neutral feelings (2 interviewees), Negative feelings (1 interviewee)

9. How do you feel about the support given to you in regards to the creation of effective learning tasks for students with disabilities in your classroom?	Positive feelings (12 interviewees), Neutral feelings (5 interviewees), Negative feelings (3 interviewees)
10. How well do you feel you have been prepared by your teacher education institution to effectively instruct and meet the needs of students with disabilities?	Positive feelings (2 interviewees), Neutral feelings (0 interviewees), Negative feelings (18 interviewees)
11. How confident are you in your understanding of the laws and policies related to the inclusion of students with disabilities in the general education environment?	Low confidence (6 interviewees), Neutral confidence (7 interviewees), High confidence (7 interviewees)
12. How do you feel teacher education institutions can better prepare general education teachers to meet the needs of students with disabilities in the general education inclusive environment?	Need for more SPED classes (11 mentions), Need for more SPED field experiences (18 mentions), More hands-on learning in teacher preparation (4 mentions), Need for more SPED demonstrations/examples (7 mentions)
13. How do you feel school districts can better support general education teachers in feeling confident in their abilities to effectively instruct students with disabilities in the general education inclusive environment?	Need for more SPED collaboration (11 mentions), Need for more SPED resources (7 mentions), Need for more SPED professional development (13 mentions)

Below are themes found in support of the answer to RQ2, is an extensive summary of participant responses primarily to Questions 7, 9, 10, 12, and 13.

Theme 1: Positive self-efficacy attributions. This theme is evidence of support for the answer to RQ2 in that many of the interviewees in this study felt any positive levels of self-efficacy in teaching students with disabilities did not come from their teacher preparation programs, but rather from later training and collaboration during employment. When discussing general education teacher self-efficacy as it related to instructing individuals with disabilities along with nondisabled peers, a large theme emerged. Of those who reported positive self-efficacy, every interviewee attributed their

self-efficacy levels to either teaching experience or SPED collaboration. One interviewee stated,

> I was a marine for 15 years so I'm used to it. The hardest is the younger kids who have the attention-seeking behaviors. I have a hard time managing/ignoring rather than approaching it in a way where I call them out in class and give them that attention. I typically don't have trouble, but a lot of that came from being an older teacher. Started at age 34.

Another interviewee said, "I think that I've gained a little bit more knowledge and ability to do that over the years that I've taught because I've had at least two classes each year." One more teacher reported,

> I feel pretty capable, I think, of instructing them. When I have any questions about what I'm doing with those students, I really try to visit with those SPED teachers. Just to make sure we're on the same page. Ask for suggestions. I'm not afraid to ask for help.

Overall, positive self-efficacy levels were attributed to both collaboration and experience as opposed to teacher education preparatory programs. This supports the answer to RQ2 since general education teachers had substantial negative feelings about their teacher education program preparation.

Theme 2: TE prep, negative. To answer part of RQ2, I asked questions focusing on teacher education program preparation related to handling behaviors of students with disabilities as well as effectively instructing them alongside nondisabled peers. The TE prep – negative theme emerged. One teacher stated, "There was one class on

differentiation and I don't feel like it really adequately taught me anything." Another interview held,

> I only had one special education class and I really wish that they would have had a class maybe once a semester where we would go and work with students with disabilities with someone who was trained so we could get more one on one.

When answering these questions focusing on teacher education program preparation, 80% of interviewees had negative feelings toward their teacher education preparation programs; interviews did not feel their TE programs had adequately prepared them for instructing individuals with disabilities in the inclusive classroom. When I related this information back to RQ2, it was clear TE programs played a vital and negative role in perceived levels of general education teacher self-efficacy as it related to inclusive teaching at the secondary level once those teachers had begun their careers.

Theme 3: Content overemphasis. In discussion with general education teachers during the same questions focused on in the TE prep – negative theme above, multiple interviewees discussed their frustration with too much emphasis having been put on content in their TE program as opposed to instruction of students with disabilities. One interviewee discussed their teacher training program was almost entirely content-focused and said, "The only class I felt like we even talked about that was a class where they talked about all the different disabilities and certification areas, but no instruction on how to differentiate for that."

Many interviewees emphasized frustration concerning the importance placed on content in secondary education as opposed to teaching methods. Again, when relating this

theme back to the RQ2, I can say with confidence from this study that secondary TE programs played a negative role in general education teacher self-efficacy levels related to instructing students with disabilities in the inclusive classroom due largely to an over-emphasis on content.

Theme 4: Positive SD support – collaboration. One of the largest themes which emerged during this qualitative data collection process was a positive general education teacher view of school district support through collaborative methods. Research Question 2 in this study focused partly on the role continuing professional development opportunities after employment played in perceived general education teacher self-efficacy. To answer this portion of the qualitative research question, I asked questions specific to school district support of general education teachers in regards to instructing students with disabilities. Teachers reported school district support in handling behaviors of students with disabilities as well as providing effective instruction for them was a large factor in their perceived positive self-efficacy levels. One teacher stated,

> They support me very well. On any kid who has an [individualized education program], we have a game plan. If it's not going like it should, our SPED teachers and administrators are here ASAP. I have great resources. Our SPED Department is great.

Another teacher emphasized positive collaboration between administration, counselor, and SPED collaboration as well:

> Our principal is super supportive. If there is an issue, we are to let him know right away so he can help right away. Our counselor is a huge help too. He deals a lot

> with the behaviors that happen a lot. I feel super supported. Our SPED department is awesome too.

When relating the information gathered during the qualitative interview phase back to RQ2, it was clear continuing professional development opportunities, primarily through district collaboration, are of vital importance to positive general education teacher self-efficacy related to instructing students with disabilities.

Theme 5: More hands-on/field experiences with students with disabilities. During the interview process, I asked general education teachers to provide suggestions for improvement of teacher education programs. I discussed the content over-emphasis theme above; this theme arose from general education teachers stating they felt a need for less content in TE preparation programs. Another large theme emerged from this question resulting in teachers discussing the need for more hands-on learning and field experiences specifically with students with disabilities. One teacher in particular stated,

> There is no substitute for practice. To teach and discuss in the classroom is a foundation. You have to get those kids in the classroom to practice. More hands-on. More in classrooms. You have to teach your teachers. Part of teaching is understanding that they're gonna fail and how to work through those failures.

It was clear, when relating this theme to RQ2, general education teachers believed teacher education programs held value in perceived levels of self-efficacy, but substantial changes to the instruction they had received in their teacher education programs needed to be made. Again, this is evidence general education teachers had largely negative feelings regarding their teacher preparation before employment.

Theme 6: More special education training. By far, the theme regarding a need for more SPED training in teacher education programs was the largest which emerged from the qualitative interview process. General education teachers overwhelmingly discussed a necessity for more SPED training before teacher candidates leave undergraduate programs for employment. Interviewee 1 stated, "Spend more time in special education classes. Half of my kids I see every day have an [individualized education program]. I wish I would have had more than one class…more instructional time devoted to special education." Interviewee 2 said, "SPED block needs to be required for EVERY major. Especially now where everyone sue happy. Those strategies help every student, not just those with disabilities."

Interviewee 5 alleged, "I think more field experiences with a SPED teacher or in those inclusive classrooms." And interviewee 8 mentioned, "There has to be some type of pre-certification in SPED. They need more training…more information on [individualized education programs], accommodations." Overall, comments about the need for more SPED instruction in teacher education programs were extremely common. General education teachers instructing students with disabilities in the inclusive classroom collectively argued the need for more SPED training to positively affect their perceived self-efficacy levels.

Theme 7: SPED resources. A final theme, the need for more SPED resources, emerged from the questions posed to general education teachers concerning how school districts can better support them in their efforts to feel well prepared to effectively instruct and handle behaviors of students with disabilities in the inclusive classroom.

Sixty-five percent of interviewees discussed how they would appreciate more training/in-service opportunities from SPED focusing on inclusive teaching methods and/or accommodation creation. Forty-five percent of interviewed general education teachers stated the need for more time for SPED collaboration in general. Thirty-percent of interviewees talked about feeling the need for more updates on SPED law, policy, and their students with disabilities throughout the school year while 20% mentioned the need for more SPED resources in general. Interviewee 17 said,

> I think either sending teachers to workshops. Maybe in-services specifically for learning how to work with students with disabilities. And I love having the cooperating teacher in with me too. So time for collaboration with SPED would be very beneficial.

Furthermore, interviewee 19 mentioned the need for "more in-depth training on how to modify assignments." Interviewee 16 discussed the need for "allowing the teacher to interact and co-teach with the SPED teachers." Interviewee 14 said, "I feel like there should be special education coaching for general education teachers." And interviewee 13 discussed ideas for more professional development opportunities with SPED through "continued communication, trainings every so often to share different tasks that would work. Instead of technology, you talk about accommodations. And maybe it's a once a year thing."

Throughout the qualitative portion of this research, SPED resources were discussed by general education teachers often. In reference to RQ2, a question was asked regarding school district support: How do you feel about the support given to you in

regards to the creation of effective learning tasks for students with disabilities in your classroom? General education teachers overwhelmingly discussed professional development opportunities, primarily focusing on SPED collaboration and resources, played an extremely important role in perceived levels of positive general education teacher self-efficacy. This supports part of the answer to RQ2 in that general education teachers reported positive feelings about school district support and attributed much of that to strong collaboration with SPED professionals, administration, and counselors. They expressed a strong desire for even more SPED professional development.

The qualitative research question was as follows:

RQ2: What roles do teacher education programs and continuing professional development workshops play in the perceived levels of teacher self-efficacy for general education teachers instructing students with disabilities in the inclusive classroom?

I found general education teachers overwhelmingly had negative feelings about their secondary teacher preparation programs; they provided suggestions for improvement mostly focusing on a need for more SPED instruction and field experiences to improve their self-efficacy related to teaching students with disabilities in the inclusive setting before they began their teaching careers. Additionally, the interviewees reported positive feelings related to their current school district support; they contributed that positivity to strong collaboration with SPED professionals, administration, and counselors and provided suggestions for and a desire to obtain even more SPED resources, primarily through SPED professional development opportunities.

As displayed above in Table 5, I used data from the interview questions to answer this research question. I primarily analyzed responses to Interview Questions 7, 9, 10, 12, and 13 to determine patterns or themes in support of the answer to RQ2. The incidences of occurrence of these themes were reported through coding interview responses into categories and subcategories.

Theme 2: TE prep – negative and Theme 3: Content overemphasis. Because I sought to understand the roles both teacher education programs and continuing professional development opportunities played in perceived general education teacher self-efficacy levels, Interview Questions 7, 10, and 12 focused on how well general education teachers felt they were prepared by their teacher education programs to effectively instruct students with disabilities along with nondisabled peers. A large majority of the interviewed general education teachers reported negative feelings regarding the preparation they received through their teacher preparation programs. This supports the answer to RQ2. One teacher stated, "There was one class on differentiation and I don't feel like it really adequately taught me anything." Another interviewee discussed only one SPED course had been required in their teacher education program. Overall, 80% of interviewees discussed negative feelings regarding the preparation they received to effectively instruct students with disabilities in their general education classrooms through their secondary teacher education programs. Additionally, a large majority of general education teachers discussed an enormous emphasis put on content-area courses in their teacher education programs. Many interviewees emphasized frustration concerning the importance placed on content in secondary education as

opposed to teaching methods. One interviewee discussed their teacher training program was almost entirely content-focused and said, “The only class I felt like we even talked about that was a class where they talked about all the different disabilities and certification areas, but no instruction on how to differentiate for that.”

In answering part of RQ2, teacher education programs played a negative role in general education teacher self-efficacy related to instructing students with disabilities in the inclusive classroom.

Theme 4: Positive SD support – collaboration and Theme 7: SPED resources. In RQ2, I also sought to understand the role professional development opportunities played in general education teacher self-efficacy related to instructing individuals with disabilities in the inclusive environment once employed. Interview Questions 9 and 13 allowed teachers to discuss how well their school district supported them in creating effective learning tasks for individuals with disabilities and how school districts can support them in a stronger way. One of the largest themes which emerged to answer this portion of RQ2 was a positive general education teacher view of school district support through collaborative methods. General education teachers in this study largely reported a positive opinion regarding the use of collaborative methods in their school districts to support their self-efficacy levels. Teachers described school district support in handling behaviors of students with disabilities as well as providing effective instruction for them was a large factor in their perceived positive self-efficacy levels. Additionally, 65% of interviewees discussed they would appreciate more training/in-service opportunities from SPED focusing on inclusive teaching methods and/or accommodation creation.

Interviewee 17 said, “I think either sending teachers to workshops. Maybe in-services specifically for learning how to work with students with disabilities.” Another interviewee mentioned the need for “more in-depth training on how to modify assignments.” And yet another general education teacher talked about the need for “trainings every so often to share different tasks that would work” to increase self-efficacy. In answering the latter part of RQ2, continued professional development opportunities played a positive role in perceived general education teacher self-efficacy related to instructing students with disabilities in the inclusive classroom environment in this study.

Evidence of Trustworthiness

To establish credibility and transferability in this study, I employed a triangulation method based on an explanatory design in which qualitative data collection followed quantitative to greater explore the general education teacher survey responses (Creswell, 2012). I used data collected from the quantitative portion of the study and compared it to the codes and themes which emerged from qualitative interview data. The quantitative portion of data analysis consisted of a correlational statistical analysis with a trained statistician to ensure accuracy. For the qualitative portion of data analysis, interview participants checked their interview transcriptions to confirm accuracy. Emphasis was placed equally on both quantitative and qualitative findings. No adjustments to the strategies outlined in Chapter 3 were needed.

Summary

After data analysis, I found the interaction of teacher efficacy and disability on student academic achievement was not significant. This indicates, in this study, data did not support the hypothesis that a significant relationship existed between general education teacher self-efficacy and the achievement of secondary students with disabilities. The hypothesis is rejected, and the null hypothesis is confirmed.

As presented in Data Collection, since general education teachers reported lower levels of self-efficacy in some areas related to the instruction of students with disabilities, I chose to further investigate this phenomenon through the use of qualitative interviews. The research question focused on learning more about the roles teacher education programs, during undergraduate studies, and professional development opportunities, after employment, played in those perceived levels of self-efficacy. I found general education teachers overwhelmingly had negative feelings about their secondary teacher preparation programs; they provided suggestions for improvement mostly focusing on a need for more SPED instruction and field experiences to improve their self-efficacy related to teaching students with disabilities in the inclusive setting before they began their teaching careers. Additionally, the interviewees reported positive feelings related to their current school district support; they contributed that positivity to strong collaboration with SPED professionals, administration, and counselors and provided suggestions for even more SPED resources. Overall, seven themes emerged from the qualitative data in support of the answer to RQ2: positive self-efficacy attributions, TE prep – negative, content over-emphasis, positive SD support – collaboration, more hands-

on/field experiences with SWD, more SPED training, & SPED resources. Discussion, conclusions, and recommendations are presented.

Chapter 5: Discussion, Conclusion, & Recommendations

Introduction

The purpose of this study was to determine if general education teacher self-efficacy was related to the academic achievement of students with disabilities. I conducted this study in hopes of providing schools with a possible reason students with disabilities consistently are not meeting AYP requirements. Additionally, through qualitative interview findings, I hoped to help general education teachers open a conversation with school administration and possibly higher education institutions regarding their needs for preparation and continuing education to feel better equipped to effectively instruct students with disabilities in an inclusive environment.

I rejected the hypothesis that a significant relationship existed between general education teacher self-efficacy and academic achievement of students with disabilities in this study. However, qualitative interviews allowed me to explore the roles teacher education programs and continuing professional development opportunities play in perceived levels of self-efficacy. Teachers reported substantial negative feelings toward their secondary teacher preparation programs and provided tips for improvement to possibly increase self-efficacy for future teacher candidates. Interviewees noted positive feelings toward their school districts' support on educating students with disabilities and credited collaboration with SPED, administration, and counselors for this. They highlighted a need for even more SPED professional development, resource availability, and collaboration as a method of increasing their self-efficacy levels. An interpretation of

the findings of this study as well as its limitations are discussed in this chapter. Additionally, recommendations for and implications of future studies are highlighted.

Interpretation of the Findings

Preservice general education teachers reported they did not always feel confident in their abilities to effectively instruct all students, including those with disabilities, in the general education classroom (Patterson & Seabrooks-Blackmore, 2017). In looking at Figure 1 in Chapter 4, it is clear general education teachers confirmed a lack of self-efficacy in a variety of situations. Using the TEIP scale, the participating general education teachers reported their self-efficacy related to instructing a wide range of students with diverse backgrounds and abilities. With a mean score of 4.97, participants revealed they did not always feel strongly or completely prepared to teach students with disabilities in the general education classroom. Gao et al. (2014) discussed implications for the development of effective teacher education programs to increase teacher self-efficacy. To further investigate these implications in this study, I interviewed general education teachers in an attempt to learn more about the roles teacher education programs and continuing professional development opportunities play in the reported levels of general education teacher self-efficacy. In the quantitative portion of this study, teacher participants did not always report strong levels of efficacy related to instructing students with disabilities in the inclusive classroom. Because of these reported lower levels of self-efficacy, I interviewed general education teachers to learn more about the roles teacher education programs and continued professional development opportunities played

in perceived levels of self-efficacy related specifically to educating students with disabilities in the general education environment.

Qualitative interviews confirmed the need to continue improving teacher education programs and provide opportunities for continuous growth and learning for already employed teachers. Due to the enormous changes in general education teacher responsibilities, the need for more SPED training and resources is evident. Schneider (2018), Blanton et al. (2018), and Livingston (2016) studied educational reform and specifically highlighted the substantial differences in the inclusion of students with disabilities in the general education environment. Table 5 provides a summary of general education teachers' responses to each interview question. In this study, general education teachers overwhelmingly discussed negative feelings regarding how well their teacher education programs had prepared them for teaching students with disabilities. Additionally, teachers expressed positive feelings toward their current school districts' support and highlighted a desire for even more SPED professional development opportunities. Montgomery and Mirenda (2014), Hutzler and Barak (2017), and Gao et al. (2014) all discussed the importance of more effective means of educating general education teachers in preparation for instructing all students in the general education environment. Interview responses in this study confirmed this need.

In past research, teacher self-efficacy was found to significantly impact many areas. Low self-efficacy negatively affected job satisfaction, emotional exhaustion, and even job engagement (Skaalvik & Skaalvik, 2014). On the other hand, Shahzad and Naureen (2017) found teacher self-efficacy had a positive influence on student

achievement. Through qualitative interviews, general education teachers provided suggestions for improvement of teacher preparation programs to possibly increase general education teacher self-efficacy levels before teachers enter the education workforce. Additionally, interviewees suggested methods of increasing their self-efficacy levels once employed through school districts providing greater opportunities for SPED collaboration and resources. While the findings of this study did not confirm teacher efficacy predicted student academic achievement, I found many implications for further research, which are discussed in the implications section.

The theoretical framework of this study was Bandura's (2001) social cognitive theory which focused on human cognitive processes and developing brain activities. Bandura (1986, 1989) and Bandura and Wood (1989) focused their research on the impact self-efficacy can have on student performance and motivation, and they highlighted the importance of improving teacher self-efficacy to increase achievement. While no significant interaction was found in this research between teacher efficacy and student academic achievement, teachers did report they did not always feel completely prepared to effectively instruct students with disabilities in the inclusive classroom. Teachers from the same population provided suggestions for improving teacher education programs and increasing support from school districts to possibly increase self-efficacy levels related to instructing students with disabilities in the inclusive classroom. In this way, the research confirmed the need to continue growing teacher self-efficacy.

Limitations of the Study

A total of 23 general education teachers voluntarily participated in the quantitative portion this research study while 20 participants shared views and experiences in qualitative interviews. Over a period of 9 months, I contacted general education teachers instructing secondary education students in the core areas of mathematics, social science, science or language arts and invited them to participate. Likely due to the timing of quantitative research, at the end of the school year, over the summer, and then in the beginning of a new school year, it proved to be difficult to find willing participants. The sample size for the quantitative portion was relatively small so this did limit generalizability and reliability of results. For that reason, I chose to further investigate through the use of qualitative interviews and changed from a solely quantitative study to mixed methods. Many factors including, but not limited to, education and experience levels of surveyed general education teachers were not known.

Participating general education teachers provided student achievement data used for this research in the form of quiz and test scores. Roughly 3% of the variability in student grades was accounted for by unknown independent variables such as age and grade level since I did not ask for any identifying data on students to maintain complete confidentiality. Additionally, not all general education teacher participants use the exact same form of achievement quizzes and tests in their classrooms, so limitations to reliability and validity did exist in this way. However, all participating teachers use this achievement data as an accurate portrayal of student performance to inform decisions regarding whether a student is prepared to move on to the next class or even grade. For

this reason, classroom student achievement data were a reliable measure of student academic achievement for the purposes of this research.

Recommendations

While this research did not confirm previous studies highlighting the connection between general education teacher self-efficacy and the academic achievement of students with disabilities, I did find important recommendations for future research. Gao et al. (2014) and other researchers discussed in Chapter 2 provided implications for the development of effective teacher education programs to increase teacher self-efficacy. This research supported the need for general education teachers to continue increasing their self-efficacy because they reported they did not always feel strongly prepared to instruct all students in the inclusive classroom. Qualitative interviews confirmed this recommendation and teachers provided suggestions for increasing general education teacher self-efficacy through improvement of teacher education programs and school district support via collaboration and SPED resource availability once employed. Low teaching self-efficacy was found by Skaalvik and Skaalvik (2014) to negatively impact job satisfaction, emotional exhaustion, and even job engagement. Further studies could focus on finding if different levels of reported teacher self-efficacy affect specific areas of teaching including, but not limited to, the three mentioned above and studied by Skaalvik and Skaalvik (2014).

Additionally, even though this study did not find a significant interaction between the self-efficacy of general education teachers and the academic achievement of students with disabilities, other researchers including Gilbert et al. (2014) and Risconscente

(2014) have found that connection. Due to the limitations in this study, discussed above, I believe further research is needed with larger populations and sample sizes to study the possible connection in greater depth. I received a total of 23 surveys from general education teachers who were willing to participate and while a difference was found, it proved to be not statistically significant. It may be possible, with a greater sample size, a significant relationship may be found. However, in this research, it was possible to further investigate the effects of teacher preparation programs and continuing professional development activities on general education teacher self-efficacy regarding their instruction of students with disabilities in inclusive classrooms through the use of qualitative interviews.

Furthermore, it may be beneficial to narrow down the population of general education teachers in future research to those just beginning their careers in secondary education. Since there were many factors unknown regarding the years of experience, age, level of education, and type of courses taught by the participating general education teachers in the quantitative portion of this study, it is possible the teachers reported higher levels of self-efficacy due to having more experience or education, particularly with SPED training or inclusive classrooms. This suspicion was confirmed when one of the themes which emerged from qualitative data was the fact that higher levels of general education teacher self-efficacy were attributed to either years of experience or strong collaboration with others. By regulating the population of general education teachers, future researchers may be able to find a significant relationship between beginning

general education teachers' self-efficacy and students' with disabilities achievement and use the information to inform teacher preparation programs at colleges and universities.

In this research, students with disabilities performed significantly lower than students without disabilities being educated in the same environment and by the same general education teachers. In the limitations section above, I discussed roughly 3% of the variability in student grades was accounted for by unknown independent variables such as age and grade level. To control more for these variables in future studies, the researcher could limit general education teachers to only reporting student achievement data for a certain age or grade level of students. Because the sample size was small in this research, having had a total of 23 surveys from general education teachers returned for the quantitative portion, it is important to continue research on a larger scale and with fewer unknowns.

Implications

This study does have potential impacts for positive social change at the individual level. Participating general education teachers answered questions on a scale of 1 to 6 related to their self-efficacy in effectively instructing individuals with disabilities in inclusive classrooms. I found no significant relationship between general education teacher self-efficacy and students' with disabilities academic achievement. However, since teachers reported, during the quantitative data collection phase via the TEIP survey, they did not always feel strongly prepared to effectively teach all students, I found implications for more research to answer RQ2. Interview responses highlighted a need for greater teacher preparation or further education at the individual level as well as

greater school district support regarding inclusive education. These results may encourage teachers to open up a conversation with administration in the schools in which they are employed; conversations may center on needs for continuing education program assistance or even teacher in-service possibilities involving effective methods for educating students with disabilities alongside their nondisabled peers. Additionally, these teachers may be able to use this research to help convey their needs to higher education institutions regarding teacher preparation course and instruction needs.

This study may contribute to positive social changes by helping general education teachers create a conversation with school administrators to discuss their needs and desires for continued training after employment; these conversations may take place in an effort to increase general education teacher self-efficacy related to the instruction of students with disabilities. Additionally, general education teachers currently employed may be able to help future teachers feel better prepared by contributing to a conversation about best practices and strategies needed to effectively teach in inclusive classrooms before future teachers leave teacher education programs for the workforce. These possible social changes are evident in this study due to the data showing a lack of self-efficacy by general education teachers in some situations. General education teachers indicated they do not always feel completely prepared to effectively instruct students with disabilities in the inclusive classroom. Through qualitative interviews, suggestions for improvement of teacher education programs and professional development opportunities during employment were discussed. In this way, teachers may receive a better education

and more support which may result in increased self-efficacy and greater success in the inclusive classroom.

Conclusion

Multiple conclusions emerged from this study regarding the relationship between general education teachers' self-efficacy and the achievement of students with disabilities. First, data indicated general education teachers did not always feel strongly prepared to effectively instruct individuals with disabilities in the inclusive classroom. Because of this finding, research was expanded to include qualitative interviews and study the role teacher education programs and continuing professional development opportunities played in perceived general education teacher self-efficacy levels. This study could help teachers open up a conversation with administration and teacher education institutions about their needs regarding how to improve instruction and learning for students in inclusive classrooms. It is crucial general education teachers are better prepared at the university level and receive on-the-job support in their school districts; this may result in increased self-efficacy and greater success teaching in inclusive classrooms.

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Appendix A: TEIP Scale

Teacher Efficacy for Inclusive Practice (TEIP) Scale

Directions: 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 reference the following scale for your answers:

1 = Strongly Disagree

2 = Disagree

3 = Disagree Somewhat

4 = Agree Somewhat

5 = Agree

6 = Strongly Agree

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

1. I can make my expectations clear about student behavior.

   (1) (2) (3) (4) (5) (6)

2. I am able to calm a student who is disruptive or noisy.

   (1) (2) (3) (4) (5) (6)

3. I can make parents feel comfortable coming to school.

   (1) (2) (3) (4) (5) (6)

4. I can assist families in helping their children do well in school.

   (1) (2) (3) (4) (5) (6)

5. I can accurately gauge student comprehension of what I have taught.

   (1) (2) (3) (4) (5) (6)

6. I can provide appropriate challenges for very capable students.

   (1) (2) (3) (4) (5) (6)

7. I am confident in my ability to prevent disruptive behavior in the classroom before it occurs.

   (1) (2) (3) (4) (5) (6)

8. I can control disruptive behavior in the classroom.

   (1) (2) (3) (4) (5) (6)

9. I am confident in my ability to get parents involved in school activities of their children with disabilities.

   (1) (2) (3) (4) (5) (6)

10. I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.

    (1) (2) (3) (4) (5) (6)

11. I am able to get children to follow classroom rules.

    (1) (2) (3) (4) (5) (6)

12. 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)

13. 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)

14. I am confident in my ability to get students to work together *in pairs or in small groups.*

    (1) (2) (3) (4) (5) (6)

15. I can use a variety of assessment strategies (e.g., portfolio assessment, modified tests, performance-based assessment, etc.)

    (1) (2) (3) (4) (5) (6)

16. 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)

17. I am confident when dealing with students who are physically aggressive.

    (1) (2) (3) (4) (5) (6)

18. I am able to provide an alternate explanation or example when students are confused.

    (1) (2) (3) (4) (5) (6)

Developers: 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.

For researcher use only: School/Teacher Code: _____

(See Appendix B for permission.)

Appendix B: Permission to Use TEIP Scale

Dr. Sharma,

First of all, let me introduce myself and say hello. My name is Bailey Koch and I am an online doctoral student at Walden University (based out of Minnesota). I am currently working tirelessly on my proposal focusing on general education teacher self-efficacy as it relates to instructing individuals with special needs in the inclusive classroom. I am contacting you in hopes that you will allow me to use your TEIP Scale I found through a review of literature for my own research. I am very impressed with the scale and know it is the perfect measure for my research. I found the article with the TEIP Scale in the appendix through Walden University's library utilizing the ERIC database.

Will you allow me to use your TEIP scale for my research, please?

Respectfully,

Mrs. Bailey Koch, M.A.Ed. Special Education
bailey.koch@waldenu.edu

Umesh Sharma <umesh.sharma@monash.edu> Wed, Aug 10, 2016 at 6:36 PM
To: Bailey Koch <bailey.koch@waldenu.edu>

Dear Bailey,
You are most welcome to use our scale for your research project. I will really appreciate if you can send us a brief report at the end of the project. We have developed few other scales (see attached) - you may also like to look at them and please feel free to use them for your research.
Warm regards,
Umesh

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Chief Co-Editor: *Australasian Journal of Special Education*
http://journals.cambridge.org/action/displayJournal?jid=JSE

Appendix C: Collection of Classroom Assessment Data

Collection of Classroom Assessment Data

Directions:
Thank you for filling out the Teacher Efficacy for Inclusive Practice (TEIP) scale. In order to ensure your responses are matched with your students, please provide classroom assessment data (in the form of end-of-chapter and end-of–unit summative quiz and test scores) for the past academic school semester (SPRING 2017 SEMESTER) from your students (in all classes you taught) with verified disabilities below. Class names are not needed and all students' scores can be listed below as long as the same grading scale is used. Please do not provide any identifying information about the students. Only scores are requested.

Please provide your grading scale used (example: A = 100 – 93%, B = 92% - 85%, C = 84% - 77%, D = 76% - 70%, F = 69% and below):

Please provide **end-of-chapter and end-of-unit summative assessment quiz and test** scores for students WITH disabilities being educated in your inclusive classrooms over the past academic semester (SPRING 2017 SEMESTER). An example is provided for you in "Student A" below. If more space is needed, please add students in the final question paragraph at the end of this section. Please only include data from those students with disabilities being educated by you along with their nondisabled peers in the same classroom environment. If the same student with a disability is in more than one of your classes taught, please provide both classrooms' data as student scores will be different for different classes.

Summative quiz and test scores are requested (typically chapter and unit quiz and test scores) as this data is typically used by teachers to determine if students have met

objectives and are ready to move on to the next lesson. So not all scores are requested, only the scores from those you classify as summative.

EXAMPLE:

“Summative scores for student A WITH a verified disability:

93, 45, 100, 105, 76, 83, 67, 100, 91, 62, 100, 100, 95, 93, 74, 70, 67, 83, 80, 91, 76"

NOTE: You may only teach a few students with disabilities. However, more are listed in case you have more students in your classes. There is no minimum or maximum needed for this research.

Student 1 with a disability:

_____

_____

Student 2 with a disability:

_____

_____

Student 3 - 20 with a disability (continued).

* Attach an additional page if more room is needed.

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Directions:

Now that you have provided quiz and test scores from all students with disabilities you teach in your classrooms, please provide that classroom assessment data for your students WITHOUT disabilities from the past academic school semester (SPRING 2017 SEMESTER). Class names are not needed. Please do not provide any identifying information about the students. Only quiz and test scores are requested.

Please provide **end-of-chapter and end-of-unit summative quiz and test** scores for students WITHOUT disabilities being educated in your inclusive classrooms over the past academic semester (SPRING 2017 SEMESTER). If you teach a class in which no students with disabilities are present, that data is not needed. Only include data in this section from those students WITHOUT disabilities being educated by you in the same environment as students with disabilities.

Summative quiz and test scores are requested (typically chapter and unit quiz and test scores) as this data is typically used by teachers to determine if students have met objectives and are ready to move on to the next lesson. So not all scores are requested, only the scores from those you classify as summative.

Student 1:

_____

_____

Student 2:

_____

_____

Student 3-40 (continued).

* Attach an additional page if more room is needed.

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Appendix D: Qualitative Interview Questions

1. How many years have you been teaching?

2. How many years have you been teaching students with disabilities in the inclusive environment?

3. How many inclusive courses do you currently teach? What are the general ages of the students with disabilities in your courses?

4. What kinds of inclusive settings are in use in your classroom? (pull-out instruction, co-teaching, classroom accommodations, etc.)

5. How do you feel about your abilities to effectively instruct students with disabilities in your classroom in comparison with students without disabilities?

6. How do you feel about your abilities to effectively control disruptive behaviors of students with disabilities in your classroom? Why?

7. How did your teacher education institution prepare you for handling disruptive behaviors of students with disabilities in the inclusive classroom?

8. How does your current school district support you in handling disruptive behaviors of students with disabilities in your classroom?

9. How do you feel about the support given to you in regards to the creation of effective learning tasks for students with disabilities in your classroom?

10. How well do you feel you have been prepared by your teacher education institution to effectively instruct and meet the needs of students with disabilities?

11. How confident are you in your understanding of the laws and policies related to the inclusion of students with disabilities in the general education environment?

12. How do you feel teacher education institutions can better prepare general education teachers to meet the needs of students with disabilities in the general education inclusive environment?

13. How do you feel school districts can better support general education teachers in feeling confident in their abilities to effectively instruct students with disabilities in the general education inclusive environment?