2019

Teachers' Beliefs About Using a Growth Mindset When Teaching Special Education Students

Kimberly Nicole Hellthaler
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Kimberly Nicole Hellthaler

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Peter Ross, Committee Chairperson, Education Faculty
Dr. Karen Slonski, Committee Member, Education Faculty
Dr. Bonita Wilcox, University Reviewer, Education Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University

2019

Abstract

Teachers' Beliefs About Using a Growth Mindset When Teaching Special Education Students

by

Kimberly Nicole Hellthaler

MA, Sacred Heart University, 2006

BS, Northeastern University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2019

Abstract

The purpose of this study was to examine general education teachers' knowledge and experiences regarding a growth versus a fixed mindset while teaching students with disabilities in Grades K-2. The conceptual framework that was used to guide this study was Dweck's implicit theories of mindsets. Research questions were developed to explore teachers' knowledge and experiences about teaching with a growth mindset versus fixed mindset and how they assessed themselves in terms of teaching with a fixed or growth mindset. The research design was a basic qualitative study that included semi structured interviews and a teacher assessment using a Mindset Quiz. A convenience sampling method was used to recruit 10 general education teachers at a northeastern U.S. elementary school. Data were analyzed through open coding and thematic analysis. The following themes were identified: all participants received no training on how to teach with a growth mindset versus a fixed mindset, all participants were interested in attending professional development on this topic, there was some knowledge of the terms *growth* versus *fixed mindset*, and all participants use some type of strategy to help improve student mindsets. The results of this study contribute to positive social change by making educators and administrators more aware of fixed versus growth mindset strategies used in classrooms. This study may bring attention to the concept of mindsets and make educators aware of the need to promote growth mindsets. Additionally, results support the need for professional development for teaching with a growth mindset for students with disabilities. Increased teacher understanding of teaching with growth mindsets can lead to better learning experiences for students in the classroom.

Teachers' Beliefs About Using a Growth Mindset When Teaching Special Education Students

by

Kimberly Nicole Hellthaler

MA, Sacred Heart University, 2006

BS, Northeastern University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2019

Dedication

I dedicate this dissertation to my family. To my husband for believing in and supporting me all through the years. Thank you for never letting me give up. To my children, Kailyn and Camden, for your love and understanding of my constant busy moments. You both make me such a better person. To my parents for their endless support; financially and emotionally. Words cannot describe how beyond grateful I am. And to my friends, thank you for always lending me your ear and encouraging me to never give up.

Acknowledgments

I would like to acknowledge Dr. Peter Ross for his continued support and motivation. At a time when I was feeling broken, he helped me persevere. For that I am eternally grateful. I would also like to thank Dr. Karen Slonksi for your feedback, support and advice. Thank you both for never letting me give up and for encouraging me to reach this tremendous milestone.

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

Mindsets refers to the view one holds of a person's intelligence and malleability (i.e., whether intelligence can be changed; Myers, Wang, Black, Bugescu, & Hoeft, 2016). Individuals have a fixed or a growth mindset in the way they view their own intelligence. A person with a fixed mindset believes that his or her talent and ability was predetermined at birth and cannot be improved (Dweck, 2016). Bedford (2017) and Snipes and Tran (2017) have indicated that students with a fixed mindset are very concerned with making mistakes and attempting new opportunities and therefore will engage in performance avoidance. In contrast to a fixed mindset, individuals with a growth mindset believe in malleability, effort, and perseverance (Snipes & Tran, 2017). Snipes and Tran (2017) defined a growth mindset as the belief that intelligence is not fixed and could be improved with effort and learning over a time. Individuals with a growth mindset believe that their intelligence can be developed in many different ways, which in turn increases their incentive to succeed academically (Dweck, 2016; Snipes & Tran, 2017; Yeager et al., 2016).

Teachers who incorporate strategies to appeal to students' mindsets may bolster student learning. Recent research has indicated that students are more successful when they are instructed with a growth mindset (Dweck, 2013; Eckert, 2015; Esparza, Shumow, & Schmidt, 2014; Gutshall, 2013; Zander, Brouwer, Jansen, Crayen, & Hannover, 2018). Although research supports teaching with a growth mindset, not all teachers in the United States are teaching this way. Some teachers may perceive

themselves as teaching with a growth mindset; however, their perception and reality may be very different.

In this qualitative study, I sought to gain a further understanding of general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom. This research study was designed to specifically examine a school in the Northeast region of the United States and to understand general education teachers' self-reported perceptions of how they instruct special education students in an inclusive classroom for students in Grades K-2 through a growth mindset. In Chapter 1, I present the background for the study followed by the problem statement, purpose, research questions, theoretical concepts, nature of the study, definitions, scope and delimitations, limitations, and significance of the study.

Background

Previous researchers have explored student's mindsets. Dweck (2016) found that students with a fixed mindset have a need to appear intelligent and view challenges as risky. With challenges, there is a chance that they could fail, and failure might affect how they view their abilities, according to Dweck. In contrast, Dweck found that individuals with a growth mindset welcome and accept support and assistance from others and believe that their intelligence can be developed in many different ways.

Positive effects of teaching with a growth mindset have been documented in previous research (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013; Zander et al., 2018). An educator's mindset plays a significant role in how they educate

their students (Ramirez, Hooper, Kersting, Ferguson, & Yeager, 2018). Additionally, how that educator approaches learning also plays a role in student success (Dweck, 2013). More research is needed to understand what teachers know about teaching with a growth mindset. Exploring general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities is key to understanding why teachers may be limiting opportunities for students to develop a growth mindset (Brooks, 2004; De Kraker-Pauw et al., 2017).

Problem Statement

The problem is that educators teach special education students with a fixed mindset or too low of a frequency of growth mindset (Johnston, 2014). Few researchers have examined teachers' understanding about teaching with a fixed mindset (Hanson, Bangert, & Ruff, 2016). Ramirez, Hooper, Kersting, Ferguson, and Yeager (2018) stated that teachers with a fixed mindset and who lack process-oriented teaching strategies teach with a fixed mindset. Teachers with a fixed mindset appear to send the message that not all students are capable of learning (Ramirez et al., 2018). Although it is more effective to teach with a growth mindset, De Kraker-Pauw, Van Wessel, Krabbendam, and Van Atteveldtis (2017) found that teachers only provide growth feedback to students approximately 25% of the time. An educator who teaches with a fixed or growth mindset can influence how a student approaches learning, experiences, and relationships (Yeager et al., 2016). Johnston (2014) stated that some teachers are teaching students with disabilities with a fixed mindset while labeling special education student's intelligence as a fixed entity. When teachers do not provide students with growth mindset feedback and

opportunities to learn from their mistakes, they are limiting opportunities for students to develop a growth mindset and improve their intelligence (Brooks, 2004; De Kraker-Pauw et al., 2017). This supports the problem that educators teach special education students with a fixed mindset or too low of a frequency of growth mindset (Johnston, 2014).

A synthesis of research indicates that teaching with a growth mindset leads to higher academic performance and also reduces the achievement gap for students with disabilities in elementary school (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013; Zander et al., 2018). Findings from research support the idea that teacher mindsets and practices directly impact and influence how children. This is especially true for students who face challenges like identified special education students, function in school (Haimovitz & Dweck, 2017).

Additionally, teachers may be teaching with a fixed mindset or growth mindset without even being aware of the difference in mindsets (Meirick, 2016). To educate with a growth mindset, it is important for teachers to be aware of the language and feedback they are using with students (Bedford, 2017). Hanson, Bangert, et al. (2016) stated that more research is needed to find out what teachers understand about mindset beliefs (fixed vs. growth). Bedford (2017) added that although teachers are aware of the importance of a positive and growth feedback within the classroom, more research is needed to identify strategies that teachers can use to promote a growth mindset for their students. This area of research is fairly new to the special education field, and most recent studies have been published in psychological journals (e.g., Gutshall, 2013; Lin-Siegler, Dweck, & Cohen,

2016;Priester & Petty, 2016; Tirri & Kujala, 2016). This gap in the literature further substantiated the need to pursue this type of research in special education.

Purpose of the Study

The purpose of this study was to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. Meirdirk (2016) stated that general education teachers may be using a fixed mindset when teaching students without even realizing they are doing so. Rattan, Savani, Chugh, and Dweck (2015) have studied the positive effects of teaching with a growth mindset. My study focus differed in that I examined teachers' knowledge and experiences about using a growth mindset to teach students with disabilities. The findings of this study may inform educational practices by making educators and administrators more aware of fixed versus growth mindset strategies used in classrooms. Study findings may also inform teachers on how teaching with a growth mindset can improve student performance. Based on the review of literature, no other studies have been conducted on this topic.

Research Questions

The research questions (RQ) used for this study were as follows:

RQ1: How do general education teachers who teach Grades K-2 students with disabilities describe their knowledge and experiences about teaching with a fixed mindset versus growth mindset?

RQ2: How do general education teachers assess themselves in terms of teaching with a fixed versus growth mindset?

Conceptual Framework

The conceptual framework of this study was Carol Dweck's (1999) implicit theories of "mindsets." Dweck explored the way in which one's mindset can influence someone's values, goals and performance. Dweck proposed that a person's mindset influences how individuals understand and make sense of the world (Priester & Petty, 2016). Dweck identified two different theories about individual intelligence. These theories are called Growth mindset or incremental theory and fixed or entity theory.

Dweck's (1999) theory is directly related to my study because I investigated general education teachers' knowledge of the implications of using specific types of mindsets with elementary school students with disabilities. When considering how mindsets are present in teaching, it is important to understand the original concepts of mindset research. These concepts will be explored in more detail in Chapter 2. If general education teachers teach with a fixed mindset towards their students, the theory of mindsets would suggest that students will adopt the same beliefs (see Dweck, 2009).

Nature of the Study

The research methodology that best addressed the research questions was a basic qualitative study design. Babbie (2016) stated that qualitative research methods allow researchers to develop a deep and full understanding of the topic being studied. This study took place at a northeastern U.S. elementary school. Conducting a basic qualitative study allowed me to interview teachers to discover their understanding and perceptions of

teaching with a growth mindset. A basic qualitative study was appropriate for this study because it is a systematic method of inquiry to help the researcher gain a better understanding of what is occurring (Patton, 2015). Through this method, I was able to have teachers self-reflect by using an adapted version of Dweck's (2006) Mindset Quiz to assess their individual mindset. To address Research Questions 1 and 2, I conducted semi-structured interviews. I used open coding and thematic analysis to analyze the data. I used a convenience sampling approach to select 10 general education teachers in Grades K-2 who have taught special education students for more than three years in an inclusive classroom. Selecting teachers with this level of experience meant that participants had familiarity and knowledge of how SWD perform in the general education setting. I selected Grades K-2 for this study since most research related to this topic has focused on students in upper grades (Tirri & Kujala, 2016). Data sources included teacher-reported data in response to semi structured interview questions (see Appendix A for the interview questions) and teacher self-assessment responses to Dweck's (2006) Mindset Quiz (see Appendix B).

Definitions

Fixed mindset or *entity theory*: The concept that someone's belief about their talent and ability is predetermined and cannot be improved (Dweck, 2016). When individuals have a fixed mindset, they do not believe in effort because they believe effort should come naturally; intelligence is set in stone and cannot be improved (Dweck & Rule, 2013; Persellin & Davis, 2016). Individuals with a fixed mindset strive to outperform others when they are confident in a task (Schroder, Fisher, Lin, Lo,

Danovitch, & Moser, 2017). Esparza et al. (2014) noted that people with a fixed mindset view effort as a form of weakness; if they need to work hard, they are no longer intelligent. In contrast, individuals with a growth mindset believe in malleability, effort, and perseverance (Snipes & Tran, 2017).

Growth mindset or *incremental theory*: The belief that intelligence is not fixed and can be improved or enhanced with effort and learning over time (Snipes & Tran, 2017). People with a growth mindset welcome and accept support and assistance from others. With a growth mindset, people believe that their brain is a muscle that can grow stronger and stronger with practice (Yeager et al., 2016). They believe that their intelligence can be developed in many different ways, which in turn increases their incentive to succeed academically (Dweck, 2016; Snipes & Tran, 2017).

Inclusion: The practice of allowing all children to participate in the general education setting regardless of their disabilities or background (Eller et al., 2015).

Mindsets: The view one holds on malleability (whether intelligence/ability can change) using the Theory of Intelligence Scale (Myers et al., 2016).

Students with disabilities (SWD): Students who receive special education services and identify with a primary classification of autism; deafness; deaf-blindness; emotional disturbance; hearing impairment; mental retardation; orthopedic impairment; multiple disabilities; other health impairment; specific learning disability; speech or language impairment; traumatic brain injury; and visual impairment, including blindness (The National Center for Special Education Research, n.d.).

Assumptions

An assumption in this study was that general education teachers are teaching students with a fixed mindset because they have little knowledge and experience with the growth mindset philosophy. Another assumption was that teachers have little awareness of which mindset they are teaching with. I also assumed that teachers participating in the study would provide honest feedback about their teaching practices.

Scope and Delimitations

In this study, my main focus was on specifically examining general education teacher's knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. I did not collect data from teachers in other grade levels. Primary Grades 3-5 were excluded because there has been a lack of growth mindset research that has specifically focused on teachers and strategies used with students with disabilities in Grades K-2, based on my review of the literature.

Limitations

Limitations of the study were the small sample size and the use of self-reports from teachers. The sample size of the study was limited to 10 teachers. A larger sample may have yielded different information. Additionally, this study was conducted in one elementary school. Teachers may have responded with a biased representation of how they teach in terms of fixed versus growth mindset.

Significance

Rattan et al. (2015) stated that the United States must narrow the achievement gap; they highly recommended teaching with a growth mindset. Additionally, Boaler (2013), Bell, Smith, and Basham (2016), and Lin-Siegler et al. (2016) stated that it is important to perform an examination of teaching practices to determine if educators are teaching special education students with a growth mindset. Ramirez et al. (2018) wrote that student achievement is impacted if a student perceives their teacher to have a fixed mindset. Furthermore, Lin-Siegler et al. (2016) stated that teachers should educate students with a growth mindset. They also stated that applying a growth mindset in elementary schools is in an infancy stage and more research is needed to improve growth mindset strategies for elementary teachers to use (Lin-Siegler et al., 2016). In addition, Tirri and Kujala (2016) wrote that mindset research has predominantly focused on adults or teenagers. Tirri and Kujala found a lack of research on how younger students, who display fixed mindset behaviors, can change their mindset to a growth mindset.

Several researchers (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013; Shumow & Schmidt, 2014; Zander et al., 2018) have examined the impact of teaching with a growth mindset. Yet, it is not known what teachers' beliefs and understandings are about teaching with a growth mindset (Tirri & Kujala, 2016). Rattan et al. (2015) stated that there is currently a lack of training materials for teachers and administrators focused on developing this pedagogy. My study may positively impact the field of education and special education by making educators and administrators more aware of teaching practices that are being used in classrooms. The study may help

student welfare and learning by bringing attention to the concept of mindsets and making educators and administrators more aware of mindset strategies that are and are not being used in classrooms.

Summary

Although current research supports promoting a growth mindset for students with disabilities, little is known about teachers' knowledge and experiences with teaching this way for students in Grades K-2. In Chapter 1, I presented an overview of the study, which included the problem, the rationale, a definition of terms, the significance of the study, research questions that were used to guide the study, and the research method. The goal of this exploratory study was to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. Examining this problem may help educators and administrators become aware of what current growth mindset practices are being implemented to support students with disabilities. An implication for positive social change is that student welfare and learning may be improved. The research questions were designed to gain insights into general education experiences with promoting a growth mindset for students with disabilities. I used Dweck's (1999) implicit theories of mindsets, which centers on the belief that people are born with either a fixed entity theory or growth mindset of intelligence. Chapter 2 focuses on relevant literature as it relates to how mindsets impact student learning. The review of literature for this study concerns significant and current research related to teaching students with a fixed or growth mindset.

Chapter 2: Literature Review

Introduction

To develop an understanding of the ways in which a person's mindset impacts their ability to be successful in a classroom, the literature review addresses various areas. The search terms I used for the primary literature review reflect these areas: *fixed mindset, growth mindset, elementary education students with disabilities, teacher perceptions,* and *inclusion*. In the literature review, I examine current knowledge about how mindsets impact elementary aged students with disabilities, emotionally and academically in a school setting. Specifically, I explored teachers' perceptions of mindsets when teaching students with disabilities. First is an exploration of current literature on individuals' mindsets (fixed mindsets and growth mindsets). Mindsets refer to the view one holds on the malleability of intelligence (Myers et al., 2016).

Individuals have a fixed or a growth mindset in the way they view their intelligence. Whether an individual has a fixed or growth mindset will affect how students view learning, experiences, and relationships (Yeager et al., 2016). Several researchers have noted that teaching a growth mindset leads to higher academic performance for students with disabilities in elementary schools (Dweck, 2013; Eckert, 2015; Esparza et. al, 2014; Gutshall, 2013; Hanson et al., 2016; The National Center on Scaling up Effective Schools, 2015). The problem is that some teachers adopt a fixed mindset about students and teach students with disabilities with a fixed mindset or too low of a frequency of growth mindset (Johnston, 2014; Yeager et al., 2016). An educator who teaches with a fixed or growth mindset can influence how a student approaches

learning, experiences, and relationships (Yeager et al., 2016). While much is known about how a teacher's mindset can impact students, few studies have addressed teachers' self-reported knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2 (e.g., Lin-Siegler et al., 2016). I conducted this study to address this gap in the literature.

Literature Search Strategy

The literature search strategy for this dissertation included an exhaustive search for literature related to the problem area. Resources included publications within the past 5 years and comprised digital articles and printed materials. I used key words such as *growth mindset*, *fixed mindset*, *special education*, and *students with disabilities* to explore Walden University's Thoreau Library search engine and the following databases: PsycINFO, ERIC, Education Source, and ProQuest. Additionally, Google Scholar was used as a resource to find current peer-reviewed articles and other publications related to student and teacher mindsets. Although there were many publications available on Google Scholar, my search was limited by publication licenses that were not accessible. In some instances, if an article was unavailable through Google Scholar, I was able to input the title into the Walden University's Thoreau Library search engine and access the document.

To establish and maintain the academic rigor of the literature review, all articles were refereed or peer reviewed. Online journal publications that were reviewed to find articles related to this research study included *Research Papers in Education*, *Practice, Psychology in Schools*, *Journal of Educational Issues*, *Psychological Science*, *Journal of*

Educational Psychology, *Journal of Special Education Leadership*, *Learning Disabilities: A Contemporary Journal*, and *Perspectives on Psychological Science.* The search for related articles produced limited publications in current special education journals. The majority of publications related to the problem were found in psychological journals or general education journals. The lack of literature on the study topic further substantiates the need to pursue this type of research within the special education domain. There were 27 relevant references that were found and incorporated into the literature review.

Conceptual Framework/Theoretical Foundation

For the conceptual framework for this study, I drew on Dweck's (1999) implicit theories of mindsets. Dweck found that one's mindset has a significant impact on a person's meaning-making process and how one will respond to a challenge or a setback. According to this theory, individuals have either a "fixed" (entity theory) or "growth" (incremental theory) mindset about their own intelligence (Dweck, 1999). The main difference between a growth and fixed mindset is the concept of change. Individuals with a fixed mindset believe intelligence is predetermined at birth while individuals with a growth mindset believe intelligence can be improved with effort (McCutchen, Jones, Carbonneau, & Mueller, 2016). Dweck's research indicate that when individuals hold a growth mindset, they have potential to improve academically and socially whereas individuals who hold a fixed mindset are more likely to have negative reactions to unfamiliar situations (Yeager et al., 2016).

This study benefitted from the use of Dweck's (1999) implicit theories of mindsets as its conceptual framework. Dweck's theory provided background and original concepts pertaining to mindset research. It also was an appropriate conceptual framework for this study because it highlights the significance of how one's mindset can impact individuals throughout their educational career (Dweck, 1999). In this study, I explored general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2.

Literature Review Related to Key Concepts and Variables

Fixed Mindsets

Dweck (2016) defined a fixed mindset as someone's belief that their talent and ability is predetermined at birth and cannot be improved. When individuals possess a fixed mindset, they do not believe in effort because they believe effort should come naturally; intelligence is viewed as being set in stone and cannot be improved (Dweck & Rule, 2013; Persellin & Davis, 2016). Individuals with a fixed mindset strive to outperform others when they are confident in a task (Schroder et al., 2017). Esparza et al. (2014) noted that people with a fixed mindset view effort as a form of weakness and that if they need to work hard, they are no longer intelligent. Dweck (2013) added that for students with a fixed mindset, there is a need to appear intelligent. To display any effort or need for support means that they are no longer intelligent human beings (Dweck, 2016).

Dweck (2016) also wrote that students with fixed mindsets view challenges as risky because there is a chance they could fail and failure would affect how they view their abilities. Individuals with a fixed mindset have difficulty with obstacles and accepting criticism (Yeager et al., 2016). Because of this, students with fixed mindsets are more likely to avoid tasks that they know they may not perform well at (Snipes & Tran, 2017). Additionally, students with a fixed mindset are very concerned with making mistakes and attempting new opportunities; therefore they engage in performance avoidance (Bedford, 2017; Snipes & Tran, 2017). They avoid situations that may be challenging because failure would undermine their intelligence (Claro, Paunesku & Dweck, 2016). Furthermore, someone with a fixed mindset fears revealing their weaknesses and will often give up easily or become distracted or withdrawn if something does not come naturally to them (O'Brien & Lomas, 2017). Schroder et al. (2017) wrote that when individuals have a fixed mindset, they believe that their intelligence is a stable entity and when they encounter a setback, they begin to develop a sense of helplessness. Because of these beliefs, a student with a fixed mindset is more likely to struggle in school because they are more likely to avoid tasks that may be perceived as challenging (Snipes & Tran, 2017). In addition, a student with a fixed mindset is not willing to put forth effort if something does not come naturally to them (Dweck, 2016).

Growth Mindsets

In contrast with a fixed mindset, individuals with a growth mindset believe in malleability, effort, and perseverance (Snipes & Tran, 2017). Snipes and Tran (2017) defined a growth mindset as the belief that intelligence is not fixed and could be

improved/enhanced with effort and learning over a time. Individuals with a growth mindset welcome and accept support and assistance from others. With a growth mindset, people believe that their brain is a muscle that can grow stronger with practice (Yeager et al., 2016). They believe that their intelligence can be developed in many different ways which in turn increases their incentive to succeed academically (Dweck, 2016; Snipes & Tran, 2017). Yeager et al. (2016) stated that individuals with a growth mindset view learning as a way to develop their abilities and learn new things. When tasks are difficult, people with a growth mindset seek new strategies, find solutions, and self-monitor themselves to overcome the challenge (O'Brien & Lomas, 2017). They view setbacks as a way to improve themselves and enjoy seeking opportunities to advance themselves by pursuing challenges (Snipes & Tran, 2017). If something is challenging, it is not a negative affront, but an opportunity to improve one's self (Laurian-Fitzgerald & Roman, 2016). In addition, Cook, Wildschut and Thomaes (2015) found that when a student has a growth mindset, they are able to experience positive emotions with learning and develop a sense of pride in themselves.

Growth Mindset in the Classroom

Claro et al. (2016) reported that students who encompass a growth mindset are more likely to earn better grades when compared to student with fixed mindsets. This is due to their willingness to seek out learning experiences that allow them to challenge themselves. Researchers have found that students who embrace a growth mindset are able to adjust better to difficult academic transitions compared to students with a fixed mindset because of their malleability (Schroder et al., 2017; Snipes & Tran, 2017).

Additionally, when a person has a growth mindset, they do not necessarily hold a reward in mind as an outcome. Instead, they learn to self-regulate, goal set, and goal monitor their performance (Myers et al., 2016). Having a growth mindset has influenced students' grades, scores on achievement tests, and self-esteem whereas students with a fixed mindset demonstrate flat or downward performance trends (O'Brien & Lomas, 2017).

Research conducted by O'Rourke, Peach, Dweck, and Popovic (2016) and Laurian-Fitzgerald and Roman (2016) has indicated that a growth mindset can be taught directly to people at all ages. After reviewing multiple studies, O'Rourke et al. (2016) stated that growth mindset behaviors can be taught by encouraging students through praise and growth mindset interventions. Myers et al. (2016) added that growth mindset intervention is a pathway to helping student develop grit. Recent studies have shown that students with a growth mindset perform better if they believe that their intelligence can be improved through effort (Claro et al., 2016). Yeager et al. (2016) stated that by changing student's mindsets to incorporate a growth mindset, student achievement can be improved in the future. Growth mindset interventions teach students about the brain's malleability and how intelligence can be developed to help students take on challenges academically and socially (Yeager et al., 2016).

Elementary School Students With Disabilities

Eller et al. (2015) wrote that over the past decade, the number of students diagnosed with disabilities has increased. The United States Department of Education (n.d.) reported that there are more than 6.5 million students who qualify for special education services. Eligible students include infants, toddlers, children and youth with disabilities from birth to 21 (United States Department of Education, n.d.). Congress stated that it is essential for national policy to provide children with disabilities equal opportunities of full participation, independent living, and economic self- sufficiency (United States Department of Education, n.d.). The National Center for Special Education Research listed the following primary disabilities for classification for students that qualify for special education services: autism, deafness, deaf-blindness, emotional disturbance, hearing impairment, mental retardation, orthopedic impairment, multiple disabilities, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment, including blindness.

Inclusion

Inclusion is the practice of allowing all students to participate in the general education setting regardless of their disabilities or background (Eller et al., 2015). The Individuals with Disabilities Education Act (IDEA) mandated that all students have access to a free and appropriate public education (FAPE) (Eller et al., 2015). IDEA also ensures that students eligible receive special education and related services as needed and that the rights of students with disabilities and parents are protected (United States Department of Education, n.d.). The United Nations Convention on the Rights of the

Child (2009) stated that segregating special education students from non-disabled peers does not allow students equal access to academic and social opportunities. Additionally, Least Restrictive Environment (LRE) mandates that all students receive a regular education to the appropriate maximum extent (Bennett, 2014). LRE was established to ensure that students with do not receive discrimination or access to education because of their disability (Eller et al., 2015). The LRE is any setting where a student can learn to the best of their ability, but this can vary with each student. Since the passing of IDEA, there has been much debate over what constitutes the LRE for the children with disabilities (Eller et al., 2015). Eller et al. (2015) state that it is important that educators recognize that LRE is dependent of each individual child. A synthesis of research from Justice, Logan, Lin, and Kaderavek (2014), Florian (2013) and MacFarlane and Woolfson (2013) all indicated that the inclusion of special education students in the regular education classroom is beneficial for all students by allowing special education students to improve social skills. Florian (2013) stated that by not allowing special education students to be included in the general education environment is discriminative and against student rights.

Growth Mindset Studies

Many research studies have been conducted to further understand mindsets and student performance. Paunesku et al.'s (2015) quantitative research study focused on the problem that it was unknown whether or not growth mindset interventions could improve academic performance for struggling students. The purpose of the study was to investigate if psychological interventions could help students achieve success. The

researchers hypothesized that the intervention would help students perform better. The study included 1,594 students from the eastern, western and southwestern parts of the United States and included public, charter and private schools. Students were randomly assigned to be part of the control group, growth mindset intervention group, sense of purpose group, or a group that combined growth mindset and sense of purpose interventions. Data were collected by analyzing student's grade point average before and after the interventions. Results of the study indicated that with the growth mindset intervention, student's grade point average improved. Paunesku et al. (2015) concluded that more research is needed to examine barriers to achievement. This conclusion is directly related to my research study as I investigated general education teacher's knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in grades K-2.

Similar to Paunesku et al. (2015), Wiersema, Licklider, Thompson, Hendrich, Haynes, and Thompson (2015) conducted a qualitative research study that examined growth mindset interventions, however their study focused on college freshman enrolled in the Academy for Leadership and Learning at the University of Iowa. Wiersema et al. (2015) wrote that college students were unaware of how their mindset affects their academic performance and behaviors. The research method for this study consisted of collecting data from students of different majors over two semesters. Students were taught skills that allowed them to reflect on their beliefs and learned how effort could improve performance. Students all kept journals where they reflected on their learning and monitored their effort. The students then participated in small group activities to

discuss their reflections. Data were collected through open-ended questionnaires. Results indicated that students demonstrated an increased knowledge of mindsets and reported positive behavioral changes. Wiersema et al.'s (2015) research study is helpful for furthering research on growth mindset. The authors stated that the results of their study could help educators promote a growth mindset for students by creating an environment that emphasizes effort. Additionally, they recommended further research to investigate what *specifically* helps students improve their mindset. This applies to my study since I explored the strategies participants in my study used to promote a growth mindset for students with disabilities.

Hanson, Bangert, et al. (2016) conducted a research study to explore the relationship between children's school level (elementary, middle, or high school) and the psychosocial construct of having a growth mindset within schools across a large northwestern state. The problem of the study was that teacher's beliefs and perspectives were influencing their teaching behaviors. The purpose of the study was to provide educators with an alternative lens of viewing learning transitions. The study's research question focused on finding out whether or not there was a relationship between school level (elementary, middle, or high school) and a school's growth mindset. Participants included four rural middle and high schools located in Montana. The study also investigated how applying a growth mindset theory to develop mindsets in schools could lead to an improvement in academic skills. Data were collected using a growth mindset survey. Results of the study indicated that the school level did have significant differences on the school's growth mindset. It was reported that at the high school level,

growth mindset was not being promoted as much as at the middle school level. Additionally, the results indicated that school climate and administrators' perceptions for change and mindset impacted the entire staff. The study provided information on how professional development and how the understanding of social cognitive theory and growth mindset theory could help teachers reflect on their practices. This information is relevant to my study by emphasizing the need to promote mindsets at all school levels. Additionally, Hanson et al. found that administrators' perceptions and mindsets impacted the entire staff. Results could be used to provide administrators additional paths to help educators support students during transitions years (Hanson, Bangert, et al., 2016).

Further research relative to my study was conducted by Esparza et al. (2014). Esparza et al. conducted a quantitative research study to compare gifted and regular education students' beliefs about malleability of intelligence and to determine if teaching students about the brain's malleability helps students develop a growth mindset. Three research questions focused on malleability of intelligence, finding out if the intervention for gifted students improved mindset, and determining how the teachers played a role in both groups of students. The researcher's methodology consisted of a quasi-experimental study that included 380 seventh grade students identified as gifted and talented or regular education students during the 2011-2012 school year. Seven classes received the intervention through a 6-week Brainology computer program, while nine groups served as control groups. Data were collected using a six-point student survey. The results of the study showed that the gifted students believed that intelligence was more malleable than

the general education students. Additionally, when teachers expressed a growth mindset, student's mindsets also improved (Esparaza et al., 2014).

Esparza et al.'s (2014) research is helpful to professionals in the field of education. The qualitative method provided valuable information on student's mindsets while the study shared important data about teacher effects on student's mindsets. Although Esparza et al.'s research examined mindsets of regular education students and gifted students, my research looked at how teacher mindsets are conveyed for special education students.

Cook et al., (2015) conducted a study to determine whether adolescents' mindsets were related to experiences of shame or pride within a school context. Participants included 121 ninth, tenth, and eleventh grade students in south England. Methods employed included the completion of the Scale of Personal Conceptions of Intelligence to measure the student's mindset as well as the use of a 10-day online diary where students reflected about their experiences. Results of the study indicated a positive relationship between students with a growth mindset and student's feelings of pride. Students that displayed a growth mindset had less experiences with shame at school as well as stronger perceptions of academic competence. Implications from the study support the importance of fostering a growth mindset in all students. Although this study is relevant to my study, it targets high school students. This supports the need for more research regarding mindsets at the elementary level.

Another study that supports promoting a growth mindset to students is O'Brien and Lomas (2016) quasi-experimental study. This study examined the impacts of

mindset interventions that took place over a 5-day outdoor personal development (ODP) course. Participants included 300 students in grades 6-9 in the United Kingdom. Participants were randomly assigned to the experimental and control groups. Participants completed pre-tests, posts and 1-month post-tests. Methods included separate mixed analyses of variance, several comparisons, and post-hoc tests. The intervention included a structured approach and four sessions throughout a week where students were taught about mindsets, "The Mindset Cycle", coping strategies, and the completion of a written action plan. Results from this investigation that the researchers found indicate that students with the growth mindset intervention improved significantly when compared to students in the control group. In addition, O'Brien and Lomas found that students with the growth mindset intervention group increased their resilience and understanding of the psychological process. This research supports further research on promoting a growth mindset for students.

Laurian-Fitzgerald and Roman (2016) conducted a mixed methods design study to determine whether or not students were able/willing to contemplate their mindsets when working through complex academic situations. Participants included 30 elementary students in Romania. Methods employed included using quantitative surveys as well as observations and teacher interviews. The researchers found that students were able to change their mindset from a fixed mindset to a growth mindset. Laurian-Fitzgerald and Roman stated that growth mindset principles and skills could be taught to students at all age levels. The students also reported that having a growth mindset helped them approach academic challenges differently. Laurian-Fitzgerald and Roman suggested that

more research is needed to find out how educators can teach students to have a growth mindset in a developmentally appropriate way. My study explored what teachers already know or do not know about teaching with a growth mindset.

One study that investigated growth mindset interventions on elementary school aged children is O'Rourke et al. (2014) quantitative research study. The impact of an incentive based computer game, *Refraction,* and how it promoted a growth mindset for students who were receiving intervention was examined. Participants included over 15, 000 elementary age children across the United States. Through an experimental design, O'Rourke et al.'s study involved teaching the experimental group directly about growth mindset through an online game's narrative, feedback, and incentive structure while the control group received videos with only a neutral mindset. Methods employed included having students play versions of *Refraction* through the educational website BrainPOP. The effects of the intervention were measured by analyzing student outcomes through non-parametric statistical methods. O'Rourke et al.'s results from this investigation indicated that students who received the experimental (growth mindset intervention) game demonstrated persistence, longer time played, displayed use of strategy, and perseverance. These results are helpful to the field of education by providing a new method for promoting mindsets within a classroom setting. This design could be used by classroom teachers and could be generalized into other game structures to help promote a growth mindset for students. This study provided information on how educators can improve their instructional strategies and promote a growth mindset when students face setbacks. The results in the study indicate that by using this type of intervention students

will increase persistence, promote growth mindset behavior, help struggling students persist, and improve students' reaction to challenge. This study is related to my study because I investigated the strategies general education teachers use to promote a growth mindset for students with disabilities in an inclusive setting.

Further research on mindsets includes Rau's (2016) qualitative study. The purpose of this study was to explore the shift in student's mindsets while students were instructed in an environment that was process-oriented with feedback that would influence the student's, mindsets, language, and responses to challenging situations. Participants included 3 fourth grade students at a public rural elementary school in the Midwestern part of the United States. Methods included interviews, student mindset surveys, observations, videotaped classroom instruction, and analyzing daily written reflections of students. The researcher used an open-coding process to examine relationships between codes to develop themes about the data. Results of the study indicated that students' mindsets shifted from speed oriented to content oriented. Students demonstrated that they were able to shift to a growth mindset by using problem-solving strategies in their reflections and interactions. Rau (2016) stated that the teacher's process-oriented language influenced the student's language and overall mindsets. This research is relevant to my study by supporting, with evidence, that teachers can influence students to shift their mindsets from a fixed mindset to a growth mindset. This study highlights the importance of a teacher's role in conveying a growth mindset, the language teachers should use/feedback teachers should provide, as well as the benefits to having a growth mindset.

Similar to Rau's study, Truax's (2018) mixed methods quasi-experimental study investigated how teacher language and use of growth mindset feedback effects student's motivation for writing. Participants included two second grade classrooms and two third grade classrooms in a Midwestern suburb. Methods employed included having students complete a pre- and post-test that measured the student's motivational growth in the beginning of the study and at the conclusion of the study. The researcher also collected qualitative data through recorded teacher-student conferences, interviews, and exit slips. An experimental and control group were implemented. Teachers in the experimental group received an 1-hour long training on growth mindset feedback and were provided with a copy of Carol Dweck's book *Mindset: The New Psychology of Success* while teachers in the control group did not attend the training nor did they receive the book. Data were collected weekly initially, but increased to daily to ensure fidelity. Truax concluded that three major themes emerged from the study. The results indicated that specific, objective feedback positively impacts a student's writing motivation, students feel undermined when their writing is criticized or corrected for mistakes, and student's writing motivation was improved by growth mindset feedback. The results of this study relates to my study by indicating the importance of the use of positive feedback. As demonstrated in the study, when teachers provide students with positive feedback, students are motivated to put forth effort. My study examined the growth mindset feedback teachers provide to students with disabilities.

To study if teacher feedback can impact student mindsets, Seaton (2018)

conducted mixed methods research study. Participants in this study included a cluster of 1 high school and 5 elementary schools that demonstrated an interest in growth mindset research. A pilot training program was conducted as well as two phases of the study that included six training sessions. Pre- and post-test measures were used using Dweck's (2000) Theories of Intelligence Scale for Adults. Additionally, qualitative measures included three blessings (diary examples), structured debriefings, and follow-up questionnaires. Results of this investigation suggested that individual's mindsets are malleable and can shift with sustained practice and training. These results relate to my study by supporting that mindset can be changed when teachers implement consistent practice for change.

Like Seaton (2018), O'Sullivan and Ríordáin's (2017) research investigated whether or not teaching students about the nature of intelligence, specifically a growth mindset, would encourage students to approach learning with a growth mindset. Participants of the study included 11 female students between the ages of 15-16 from a low socio-economic background in Ireland. A mixed methods approach with both qualitative and quantitative methods of data collection were used during the six-week course. Data collection tools included: the use of a questionnaire that assessed each student's view of the nature of intelligence and mindset (in the beginning and end of the course), a puzzle to assess how students faced challenges, a critical friend of the researchers provided insight qualitatively, and interviews were used to evaluate the change in student's ideas about the nature of intelligence and mindset. Data were coded and triangulated. Results of the study demonstrated in increase in the group's ideas of the

nature of intelligence and an improvement in growth mindset. Participants reported that they would think differently about the way they approached challenges after participating in the study. This study relates to my study by showing how important it is to teach students about mindsets. This research also supports further research on growth mindset in all subject areas.

Researchers Haimovitz and Dweck (2017) conducted a research study to determine if parent's failure mindsets shape children's beliefs about themselves. Prior to this research study, parent's intelligence mindsets for their children had not been linked. Haimovitz and Dweck seeked to understand where children's beliefs about their ability came from. The researchers hypothesized that parental theory may be visible to children and that parents who view failure as debilitating would have children that believed their intelligence was fixed. A total of 4 studies were conducted. Study 1 included 73 parent-child dyads with students that were in fourth of fifth grade in the San Francisco Bay area. The method included having parents complete an online survey of their failure mind-sets, their intelligence mind-sets, and perceptions of their child's competence in school. Additionally, the children also completed a survey on their mindsets and reported on their parents learning orientations. The results of study 1 indicated that there was a significant relationship between parent's failure mind-sets and their children's intelligence mind-sets. In study 2, 160 parents of students receiving formal education were selected to complete an online survey assessing failure mindset, their intelligence mind-sets, and perceptions of their child's competence in school, and reactions to a scenario. The researchers found that the more parents believed that failure was debilitating, the more

likely they were to be concerned about their child's lack of ability. Study 3a indicated that children could perceive their parents failure mind-sets, while Study 3b indicated that parents' failure mind-sets also predicted their own intelligence mindsets. Finally, Study 4 demonstrated that parents' failure mindset had a causal effect on the way parents react to their children. These results relate to my study by establishing links to understanding how children's motivation is socialized. Haimovitz and Dweck's research highlights the importance of creating openness to failure and the ability to effectively use it to help children develop a growth mindset.

Further research on how students respond to growth mindset interventions is demonstrated in Boaler et al. (2018) study. The researchers studied whether students had the ability to change their beliefs about their mathematical achievement using a massive open online course (MOOC). The MOCC included six modules that focused on key ideas about growth mindset and also included a series of short videos that allowed participants to reflect on ideas. Participants included 439 students that participated in an online course, 651 students who served as the control students, and 14 teachers from 10 different middle schools within four districts in California. The researchers used participants' scores on the Smarter Balanced Assessment Consortium to measure student growth. The research method used was a delayed-treatment research design. Results from this investigation were reviewed using an Ordinary Least Square (OLS) regression for baseline differences among the sample. Results of the study indicated that with the use of a strategically designed course, student's mathematical scores were significantly and positively impacted. Students that received the treatment obtained higher scores in the

overall SBAC math scale. Additionally, students with disabilities that participated in the treatment group also had significantly higher scores on the SBAC assessment (an increase gain of 0.33 standard deviation). As part of the study, teachers were asked to evaluate student engagement during the treatment. Teachers reported that students in the treatment group were approximately 68% more engaged than the control group.

Additionally, Blazar and Kraft (2017) studied teacher and teaching effects of student's attitudes and behaviors. The purpose of their study was to determine to what extent teachers impact students' attitudes and behaviors in class, to what extent do specific teaching practices impact students' attitudes and behaviors, and to determine if teachers that are effective at raising test scores are also effective in developing positive attitudes and behaviors in class. Participants of this study included 310 fourth and fifth grade teachers from four anonymous school on the East coast of the United States. Methods included videotaping, having teachers complete a questionnaire, observation measures, and analyzing data over a 3 year period. Results of the study indicated that the teachers had a large effect on student's self-reported self-efficacy. Additionally, the results indicated that teachers that improve student test scores are not equally effective at improving student attitudes and behaviors. This research highlights the importance of teacher effects on student's attitudes and behaviors. This study is relevant to my research by demonstrating how teachers' strategies can impact how students perform, their sense of happiness while in school, and how students will behave.

In Sun's (2016) study, the purpose was to determine how teachers contributed to student's beliefs about their math mindset and math potential. The relationship between

teacher and student beliefs about mathematics and mindsets as well as the ways that teachers communicated messages about mindset were studied. Participants of the study were 40 middle school math teachers and approximately 3,400 students. A mixed methods study was employed and included a survey that the researcher created. A parallel case study that used ethnographic methods (interviews, classroom observations, field notes, course materials, etc.) and 8 of the 40 selected teachers was also completed. Results of the study found that when teachers instructed in 1-dimensional ways, they were more likely to convey a fixed mindset towards students about their ability. When the teachers had a more multi-dimensional view about the student's math ability, the teachers were more likely to communicate messages about growth mindset. Strategies employed included allowing students to contribute through asking questions, drawing out, making connections, and group work. This study is relevant to my study by informing educators about successful strategies to help students improve their mindset.

Rhew, Piro, Goolkasian, and Cosentino (2018) investigated whether the use of a growth mindset intervention could help special education students with their sense of self-efficacy and motivation. Participants of the quasi-experimental pretest–posttest study included 68 students identified with disabilities reading in grades 6, 7, and 8 in an urban school district in western Connecticut. The researchers set out to determine whether or not there was a difference between students who did or did not receive the growth mindset intervention. Student scores on the Reader Self-Perception Scale 2nd Edition (RSPS-2) and the Motivation for Reading Questionnaire (MRQ) were used as tools for measurement. Students in the treatment group participated in an online program called

Brainology that allowed students to independently progress through lessons about growth mindsets. While the treatment group participated in the Brainology program and growth mindset treatment, the control group continued with a period of study from their special education teachers. Results of this study suggested that the use of a growth mindset intervention had a significant difference in the motivation for special education participants. The treatment group (M = 159.13, SD = 12.27) which participated in Brainology program scored significantly higher than the control group (M = 141.64, SD = 8.27). This research relates to my research study by supporting that teaching with a growth mindset for students with disabilities could help them develop a growth mindset and therefore improve student's motivation to learn. Additionally, this study highlights the importance of teacher feedback and the need to focus on the process and the effort put forth by students with disabilities (Rhew et al., 2018).

Paunesku et al., (2015) conducted a study to find out if mindset interventions were a scalable treatment for academic success for underperforming students in the United States. Participants in this study included 1,594 high school students from 13 different high schools located in the eastern, western, and southwestern United States. Methods employed included testing two mindset interventions; one for growth mindset of intelligence and one for sense of purpose. In the mindset intervention, students were asked to read an article that described how the brain had the ability to grow with hard work. The control group read materials that focused on the functional localization of the brain. Additionally, brief psychological measures were administered to determine if the growth-mindset intervention changed participant's beliefs about malleability of

intelligence and to assess how students viewed schoolwork. Student's grade point average (GPA) was used a measurement tool. Results from the investigation revealed that students that were performing in the bottom third of the sample were able to raise their GPA score in core academic classes with the intervention. These results relate to my study by demonstrating that students that were facing academic challenges were able to improve their academic performance with growth-mindset interventions.

Ramirez et al. (2018) sought to find out if teacher anxiety played a role in student achievement. Participants included 1,886 ninth grade students from 11 public schools across the nation. The researchers wanted to determine if teacher anxiety predicted student achievement, if student perceptions of teacher mindsets explained student achievement, and the impact of teacher's process-oriented practices. Methods employed included the use of official school records, a teacher survey, and a student survey of teacher's teaching practices. Results of the study indicated that higher teacher anxiety is associated with lower student achievement. Additionally, student achievement is mediated via student's perceptions of their teacher's fixed mindset. When the students' perceived their teachers' mindset to be fixed, student achievement was lower and students believed that not everyone could be good at math. Ramirez et al.'s study is relevant to my study by highlighting the importance of how student-perceived teacher mindsets can negatively impact students.

Summary and Conclusions

The literature presented in this chapter emphasized the importance of promoting a growth mindset in the classroom for all students. Several studies examined the results

when teachers used a growth mindset versus fixed mindset and found that results of teaching with a growth mindset compared to not teaching with a growth mindset indicated more student growth. There are few studies which directly examine teachers' knowledge and experiences of teaching with a fixed versus growth mindset. The literature supports the claim that teachers are too often teaching with a fixed mindset. It is also suggested that teachers who teach with a fixed mindset can negatively impact their student's learning and mindset. Additionally, the literature review addressed several gaps in literature about teaching with a growth mindset versus a fixed mindset. In Chapter 3, I present a discussion of the methodology for the study.

Chapter 3: Research Method

The purpose of this basic qualitative study was to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. Although previous researchers (Dweck, 2013; Eckert, 2015; Esparza, Shumow, & Schmidt, 2014; Gutshall, 2013; Zander, Brouwer, Jansen, Crayen, & Hannover, 2018) have studied the positive effects of teaching with a growth mindset, there appeared to be a gap in research on teachers' knowledge and experiences about teaching with a fixed mindset versus a growth mindset with students with disabilities. This chapter includes the research questions used to guide this study and a detailed description of the research design and rationale for the use of the basic qualitative method employed. Also included in this chapter is discussion of my role as the researcher; the methodology including participants of the study (sample size, sampling strategies, and criteria for selecting the sample for the study); and instruments used. I conclude this chapter by discussing the data collection procedures including issues of trustworthiness and ethical procedures.

Research Design and Rationale

Research Questions

The research questions for this study were as follows:

RQ1: How do general education teachers who teach Grades K-2 students with disabilities describe their knowledge about teaching with a fixed mindset versus growth mindset?

RQ2: How do general education teachers assess themselves in terms of teaching with a fixed versus growth mindset?

Qualitative Research Framework

I selected a basic qualitative research method for this research study as it was the approach that best addressed the research questions. Merriam (2002) stated that qualitative research is a highly descriptive approach that allows researchers to study interpretations of a particular setting in a particular context. Additionally, qualitative research methods allow researchers to develop a deep and full understanding of the topic being studied by observing how people behave or respond (Babbie, 2016). Using a basic qualitative research approach allowed me to obtain information through semi structured interviews of teachers to discover their understanding and perceptions of teaching with a growth mindset. Additional qualitative methods such as grounded theory, phenomenology, ethnography, and focus groups were considered but were rejected for my study. The use of semi structured interviews and teacher assessments allowed participants to be open and not feel judged by their colleagues.

Role of the Researcher

My role as the researcher for this research study included designing the study, administering interviews and assessment quizzes, and transcribing and analyzing the data collected. My original plan was to conduct this study at the school where I am employed; however, I felt as if there would be too many biased responses that could impact my data. Instead, I selected a school within the same district in which I am employed where I did not have any relationships with any of the employees. Working in a large school district

allowed me to select from 12 elementary schools to use for my study. I did not have any personal relationships with any of the participants I interviewed.

To minimize bias, I also strove to not interject my personal views on the study topic in my research. A qualitative researcher needs to be aware of how their own personal lens and biases could impact data collection (Fusch & Ness, 2015). Fusch and Ness (2015) stated that every researcher brings their own biases to their research, but the more they are able to recognize their personal views, the better they are able to interpret data. Additionally, going into this research study, I was aware of my personal beliefs about teaching with a growth mindset. Although I strongly believe teachers should promote a growth mindset while teaching student with disabilities, my role as the researcher was to report, not to pass judgment on any participant's teaching methods. By being aware of my own personal biases and not selecting anyone whom I had a previous relationship with, I was able to help control these potential contaminating variables.

Methodology

This section includes information about the participants who were selected for this study and the sampling strategy; instrumentation; the procedures for recruitment, participation, and data collection; and the data analysis plan.

Participant Selection

For this research study, I used a convenience sampling approach to select 10 general education teachers in Grades K-2 who have taught special education students for more than three years in an inclusive classroom. A northeastern U.S. elementary school

was selected for this study. Selecting teachers with this level of experience meant that participants had familiarity and knowledge of how SWD perform in the general education setting. Grades K-2 were selected for this study since most research related to this topic has focused on students in upper grades (Lin-Siegler et al., 2016).

Instrumentation

I had each teacher complete an adapted version of Dweck's (2006) Mindset Quiz to assess their fixed or growth mindset (see Appendix B). The use of this assessment allowed me to determine whether the teachers have a strong growth mindset, growth mindset with some fixed ideas, a fixed mindset with some growth ideas, or a strong fixed mindset (Dweck, 2006). Data were also collected through the use of semi structured interviews using guided questions to discover teachers' understanding and perceptions of teaching with a growth mindset (see Appendix A). In semi structured interviews, the researcher has a specific topic and a few questions prepared in advance and is prepared to ask follow-up questions (Rubin & Rubin, 2011). All interviews were recorded and transcribed using the Microsoft Word program. All participants were informed of the purpose of the study and were told that there is no right or wrong answer. I concluded each interview session by thanking the participant for participating in the study.

Procedures for Recruitment, Participation, and Data Collection

I selected a school within the same district in which I am employed where I do not have any relationships with any of the employees. I am employed in a large school district, which allowed me to select from 12 elementary schools to use for my study. I selected a school where I did not have any personal relationships with any of the

participants to reduce any personal biases. Once I selected a school within my district, I contacted the school district's superintendent for permission and the school's principal to gain permission to conduct my study. After obtaining permission (see Appendices C and D), I provided the staff a letter of invitation via e-mail to participate in this research study. Participants must have had experience teaching special education students for more than three years in an inclusive classroom. Educators who met the requirements were invited to participate in this study. If more than 12 teachers were interested in participating in my study, I would have selected the first 10 respondents.

Data collected for this study included information from semi structured interviews with a list of prepared questions. In addition, I used Dweck's (2006) Mindset Quiz to have teachers assess whether they have a fixed or growth mindset. I was responsible for recording all data and taking notes. Interviews were conducted face-to-face.

Data Analysis Plan

Through the process of coding, researchers are able to categorize a collection of codes to find and label concepts and themes (Rubin & Rubin, 2012). Saldaña (2016) stated that coding is a way to analyze qualitative data by using a word or short phrase to assign a summative or essence-capturing attribute to data (Saldaña, 2016)). Coding allowed me to identify and recognize distinctive features and similar themes or patterns (Rubin & Rubin, 2012). I coded all data collected by hand. My data analysis plan included the use of open coding and thematic analysis to analyze the data. Thematic analysis was used to develop themes that would help support the research question by

noting relationships, similarities and differences among the data (Ravitch & Carl, 2016). I conducted thematic analysis by looking for themes that are summary statements, explanations or conclusions that relate to the research questions and participants' viewpoints (Rubin & Rubin, 2012). By using thematic analysis and coding, I was able to identify all themes, patterns or categories that were present. With this information, I was able to give meaning to the collected data and answer the research questions with evidence. I reached data saturation when there were no longer "new" themes identified in the participants' transcripts, or no more data were needed to be collected (Ravitch & Carl, 2016).

Trustworthiness

When conducting qualitative research, it is important for researchers to ensure quality, trustworthiness, and credibility of their research. Ravitch and Carl (2016) stated that researchers should take a relational approach to research in order to examine and inquire into relational dynamics between researchers and their participants. A relational approach allowed me as the researcher to become vulnerable, to engage in receptive sensibility, and self-reflection while allowing me to be open to changing my opinions and approach to research (Ravitch & Carl, 2016). By taking a relational approach to research, researchers are able to build trustworthiness with their participants through this person-centered approach (Ravitch & Carl, 2016). This is the type of approach I used in this study. Researchers are able to develop trustworthiness in their research by addressing issues of credibility, transferability, dependability strategies, and confirmability (Shenton, 2004). To ensure quality and trustworthiness, I addressed issues of credibility,

transferability, dependability strategies, and confirmability in this study. This subsection also includes a discussion of ethical considerations and strategies for minimizing personal biases.

Credibility

When evaluating credibility, researchers must consider whether or not the research is believable and whether or not a true picture of a case is demonstrated (Shenton, 2004). If the information is not believable, then it is not credible. To ensure trustworthiness and to establish credibility, researchers should make sure that the research methods are well established, there is a familiarity with the culture of participants before data is collected, and tactics to help ensure honesty with informants are used (Shenton, 2004). To increase quality and trustworthiness, I used multiple data collection strategies including teacher assessments and interviews. As a practicing educator, I was familiar with the culture of participants prior to the data collection phase. Additionally, I shared with all participants the purpose of my study and how I hoped to positively influence social change.

Transferability

A validity criterion that is important to consider in qualitative research is transferability. Ravitch and Carl (2016) wrote that transferability is the way in which qualitative research can be transferred or applied to broader contexts. Methods to achieve transferability included having detailed descriptions of collected data as well as the context in which the study took place. I provided detailed descriptions of the data

collected and provided a thorough description of the school environment that the interviews took place.

Dependability

A study's dependability is related to whether or not a reader can follow the processes utilized to gather and interpret data (Lodico et al., 2010). Babbie (2016) wrote that many qualitative researchers refer to dependability as the basic validity component of qualitative research. Furthermore, Ravitch and Carl (2016) described dependability as the stability of data. I achieved dependability in this study by having a solid research design and by providing a well-developed data collection plan. These methods helped ensure dependability as they addressed the research questions of the study.

Confirmability

Confirmability refers to the researcher's objectivity. To have confirmable data, researchers should have relative neutrality and be free of researcher biases (Ravitch & Carl, 2016). The use of verbatim transcriptions helped increase confirmability (along with an audio recording of the interview). A transcript review was provided to each participant. To have confirmability, I used member checking to ensure the validity of the data I collected by showing the participants the themes that were produced and by asking if the themes are consistent with what the participants intended to convey. Member checking, also known as participation validation, is the person-centered approach to understanding challenging interpretations by allowing the participants to see if they are adequately being represented (Ravitch & Carl, 2016).

Ethical Procedures

To ensure the protection of the participants of this study, there are many steps I took to maintain confidentiality and proper treatment of the participants. Rumrill, Cook, and Wiley (2011) wrote that researchers have an ethical responsibility to their participants' professional organizations, and employers to make sure that the highest ethical standards are implemented. Prior to conducting any research, I applied to the Walden University Institutional Review Board (IRB) and received approval. Additionally, I also received permission from the district used in my study and shared that permission with Walden's IRB. I have successfully completed all Walden University course work including a class that focused on ethical procedures for research using human participants (National Institute of Health).

Informed Consent

Researchers need to be clear with participants that participation is voluntary and explain that to participants that they will not be penalized or rewarded for participation (Babbie, 2016). I had full disclosure with my participants about my purpose for conducting my study. In addition, I provided all participants an informed consent form to sign prior to collecting any information to guarantee the rights of all my participants. The informed consent form included: the purpose of the study, why participants were selected for the study, disclosure of identity, description of the procedures I planned to use, a statement explaining that their participation was voluntary and that there would be no penalty for nonparticipation or if they drop out of the study at any time of the proposed

study, a statement explaining that there would be no compensation for participation, and my personal contact information.

Confidentiality

Ravitch and Carl (2016) stated that researchers must discuss confidentiality and anonymity with participants. An ethical issue that a researcher may face is unintentionally causing harm to participants be exposing their identity. It is unethical to release information that would identify the participants in anyway (Babbie, 2016). Researchers may confuse anonymity and confidentiality which can also cause ethical issues for research participants (Babbie, 2016). To avoid this, I secured all personal information by removing all identifying personal data discovered during the data collection process. Furthermore, all information was kept on a secured laptop in my home that is password protected with anti-virus protection which kept data safe from public access. I also assigned pseudonyms to protect the identity of all participants involved in this study.

Minimizing Personal Biases

As a researcher, it is important to be aware of my biases and personal interests to ensure that my research study is properly implemented. I am aware that I am very passionate about the topic of growth versus fixed mindsets and easily angered when I do not observe teachers teaching with a growth mindset even though some researchers have indicated that promoting a growth mindset is beneficial for students with disabilities (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013). By recognizing my

opinions and being aware of them, I can acknowledge that my research is focused on examining general education teacher's knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in grades K-2. I sought to understand teachers' experiences and knowledge and did not judge teachers based on their current practices. I approached this study with an open mind and was able to manage my personal biases.

Summary

In Chapter 3, I described the research methods that were used to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities. I included a discussion of my role as the researcher and why a qualitative research design was the best approach for answering the research questions. The research methodology was discussed as well as the process of selecting participants, instrumentation, and procedures for data collection. I addressed issues of trustworthiness and ethical procedures that were put into place including my plan to meet all requirements expected by the IRB. In Chapter 4, results of this study will be presented, analyzed, and discussed.

Chapter 4: Results

The purpose of this basic qualitative study was to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. Many factors (education, professional development trainings, access to educational resources, etc.) have an impact on teachers' knowledge and experiences. While much is known about how a teacher's mindset can impact students (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013; Zander et al., 2018), few studies have addressed teachers' reported knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2 (Lin-Siegler et al., 2016). The research questions for this study were as follows:

RQ1: How do general education teachers who teach Grades K-2 students with disabilities describe their knowledge about teaching with a fixed mindset versus growth mindset?

RQ2: How do general education teachers assess themselves in terms of teaching with a fixed versus growth mindset?

In this chapter, I present the findings from this qualitative study, discuss the setting of the interviews I conducted, and present the demographics of the participants I interviewed. Additionally, I explain how data were collected and analyzed. I also provide evidence of trustworthiness as well the results of my study.

Setting

This study took place at a northeastern U.S. elementary school. While I am an employee of the same district, I specifically selected a different school from the one where I am employed and where I did not have any personal relationships. This helped avoid any conflicts of interest that might have occurred. It also allowed me to assume the role of a researcher instead of an educational professional.

In 2015-2016, this district had 5,260 students enrolled in Grades K-5. The specific school in which the study took place had the highest student enrollment out of all the elementary schools in the district and was functioning at approximately 104% capacity. During the 2015-2016 school year, 615 students were enrolled at that school. It was anticipated by school officials that the student population would increase to 654 students during the 2019-2020 school year. Additionally, according to the 2016 school records, 29% of the students lived in single-family houses, 51% lived in a two-to-four person family house, and 20% lived in multifamily house; for 2% of students, the living situation was unknown.

Demographics

Each participant interviewed for this study was a general education teacher in Grades K-2 who has taught special education students for more than three years in an inclusive classroom. Each participant taught at the same school within the same district at the time of the study. Participants' teaching experiences ranged from 4 years to 25 years. All participants were women. Table 1 includes information regarding the number of years participants have taught and participants' age bracket.

Participant 1 was a woman whose career in education spans 25 years. Her age bracket fell between the ages of 45-50. Participant 2 was a female teacher with 8 years of teaching experience and fell within the 30-35 age bracket. Participant 3 had 5 years of teaching experience and was in the 35- 40 age bracket. Participant 4 shared that she had been teaching for 11 years and was in the 35-40 age bracket. Participant 5 had 6 years of teaching experience and was between the ages of 30-35. Participant 6's teaching career spanned 19 years. She fell within the 40-45 age bracket. Participant 7's teaching career also spanned 19 years, and she too was in in the 40-45 age bracket. Participant 8 shared that she has been teaching for 13 years and was between the ages of 35-40. Participant 9 has been teaching for 9 years and was between the ages 35-40. The last participant, Participant 10, had been teaching for 4 years, and her age bracket was between 25-30.

Table 1

*Participants Demographic*s

Participant	Years teaching	Gender	Age bracket
P 1	25	Female	45-50
P 2	8	Female	30-35
P 3	5	Female	35-40
P 4	11	Female	35-40
P 5	6	Female	30-35
P 6	19	Female	40-45
P 7	19	Female	40-45
P 8	13	Female	35-40
P 9	9	Female	35-40
P 10	4	Female	25-30

Data Collection

I conducted a total of 10 interviews for this study at one elementary school located in the northeastern part of the United States. All participants agreed to participate in this study by responding to an e-mail that requested their participation. Participants responded to the e-mail by stating "I consent." I began each meeting by introducing myself and the purpose of my research study. Before conducting interviews, each participant completed the Mindset Quiz (see Appendix B). Interviews were conducted in a private setting where I was able to speak to the participants one-on-one. Interviews took place over a 4-week period. Each interview was face-to-face with the exception of four interviews which took place over the telephone due to the participants' schedules. Each interview lasted approximately 15- 35 minutes. Interviews were audio recorded to ensure accuracy. Handwritten notes were taken as well. All participant interviews were transcribed by hand and provided to participants for transcript review. All participants were also provided a table that included all codes and themes that emerged from data collected from their interview for member checking. To ensure confidentiality, I assigned each participant a pseudonym.

Data Analysis

To analyze data for this qualitative research study, I used open coding and thematic analysis. During my interviews, some participants went into great detail with their responses while other participants provided only brief responses. To try to gain more information participants, additional follow-up questions were used and were helpful

in obtaining more details. Open coding allowed me to categorize a collection of codes and identify concepts and themes (see Rubin & Rubin, 2012). After listening to the recorded interviews, I coded all collected data by hand. With pen coding, I identified and recognized distinctive features and similar terms or patterns (see Rubin & Rubin, 2012). Thematic analysis was used to identify themes that were presented in the data among participants. I then color-coded themes and codes that emerged and charted common trends within a Microsoft Excel spreadsheet that was saved on my personal password-protected computer. By using open coding and thematic analysis, I was able to identify the themes, patterns and categories that were presented. With this information, I was able to give meaning to the collected data. After the process of coding, major categories were identified that then led me to recognize common themes.

After analyzing the codes and themes, I then referred back to the research questions that each theme pertained to. I looked to see how the participants responded to each interview question and how the responses provided evidence to support the research questions. The first research question about general education teachers' knowledge about teaching with a fixed mindset versus growth mindset was answered by data that were presented within Themes 1, 2, 3 and 4. The second research question was about how general education teachers assess themselves in terms of teaching with a fixed versus growth mindset. This research question was answered by the data presented in Theme 5 which were collected from the assessment Mindset Quiz. Table 2 includes themes, codes, and the related research question.

Results

The results of this study emerged from teacher interviews and having participants assess themselves using the Mindset Quiz. Qualitative results are presented that include common themes among participants that are used to answer the research questions.

Interview Questions

I asked eight interview questions during my one-on-one interviews with participants.

Question 1: How would you describe your knowledge about teaching with a growth mindset versus fixed mindset?

Participant 2 shared that although she had not had any formal training on teaching with a growth mindset, she did attend Eric Jensen's Brain Based Learning seminar. She added that the Jensen training was only a few days, but it did help her learn the importance of being conscious of the language that should be used when working with students. Participant 5 stated that over the summer she attended a "Daily 5 Books" training that somewhat related to teaching students to have a growth mindset. She explained that the "Daily 5 Books" discussed the importance of getting your students to be independent. She added: "by being independent, students make mistakes and do not allow themselves to get stuck." This comment was related to the concept of avoiding a fixed mindset.

Question 2: What is you experience teaching with a growth mindset? Do you have specific strategies that you use with your students?

Participant 1 stated that she had a small amount of knowledge from working within her current district, but had not had any formal training. Participant 2 stated that she had some experience teaching with a growth mindset because she attended an Eric Jensen training that briefly discussed the topic. Participant 3 shared that her knowledge of having a growth mindset set came from a combination of personal reading sources and graduate classes. Participant 4 said "the brain is like a muscle, the more you work it out, the stronger it can get." She also added that with a growth mindset, it is important to believe in hard work and practice and that is what she tries to incorporate with her students. Participant 5 stated that she did not know too much about teaching with a growth mindset, but she shared that having a fixed mindset would be characterized by the phrase "I can't" while a growth mindset would characterized by the phrase "I can't yet." Similarly to Participant 3, Participants 6 and 7 shared that most of their knowledge about the topic came from reading academic articles or asking colleagues about the topic. Participant 8 was very appreciative when I explained what the terms fixed and growth mindset were. She was honest that she had heard the terms, but wasn't sure if she was understanding them correctly. Once I clarified the terms, she stated that she agreed that she did teach with a growth mindset with some fixed terms, but was working on recognizing the students on their effort to help them feel good about themselves. Participant 9 shared with me that although she had never had any formal training on teaching with a growth mindset, she had heard the terms previously. Participant 10's knowledge or teaching with a growth mindset versus a fixed mindset came from a book study on mindsets she did at a previous school where she worked. She shared that the

book wasn't specifically about teaching with a growth mindset, but about having a growth mindset in life. (See Table 3 for strategies teachers shared that they used to teach with a growth mindset.)

Question 3: What type of mindset do you feel you teach with, fixed or growth, why?

Participants 1, 3, 4, 5, 6, 7, 8, and 9 all stated that they believed they taught with a growth mindset. Participant 2 said that she believed that she taught somewhat in between a fixed and growth mindset. Participant 10 stated "the mindset I teach with depends on the subject I am instructing in." She added "I instill a growth mindset my students, but sometimes can be harsh when evaluating myself."

Question 4: Have you had any formal training about teaching with a growth mindset? Do you think trainings would be helpful?

None of the teachers who participated in this research study had been provided any formal training on teaching with a growth mindset versus a fixed mindset. Participant 1 stated "I had heard the terms in my previous district, but in my current district there were no trainings or conversations about the topic." Some participants shared that they had some sort of different training that slightly touched upon mindset research, but stated that those trainings did not provide specific information about teaching students to have a growth mindset. All participants reported that they would be interested in further increasing their knowledge and understanding of teaching with a growth mindset through professional development.

Question 5: Do you think intelligence can be improved? Why or why not?

All participants reported that they believed intelligence can be improved. Participant 1 shared that she believed that anyone can learn no matter where they were starting from. Participant 2 stated "everyone starts at a different level, but with supports, intelligence can be improved." Participant 3 stated "there are people who may be born smart at something, but may be lacking in something else." She added that there was always room to grow and change for the better. Participant 4 shared that no matter the disability all students are capable of growing. Participant 7 stated that intelligence could be improved by learning from mistakes and having opportunities to try something over again. Participant 8 said that she believed intelligence can be improved. She tells her students that even adults can get smarter by practicing something over and over again.

Question 6: What strategies if any do you use to promote a growth mindset for students with disabilities in grades K-2?

Participants 4, 5, 8, and 9 all stated that a strategy they use to teach with a growth mindset with students with disabilities is to build confidence for their students. Another common strategy used by Participants 1, 8, and 10 was the use of praise. Participants 4 and 6 shared that they like to use peer partners as a strategy while Participants 2 and 8 stated they try to highlight their student's strengths as often as possible. This further demonstrated how general education teachers described their experience about teaching with a fixed mindset versus growth mindset. (See Table 3 for strategies teachers shared that they used to teach with a growth mindset.)

Question 7: Based on Dweck's mindset quiz, your results indicate that you have a ____ mindset. Do you feel this is an accurate representation, why?

Participant 5 was surprised that she did not assess herself to have a strong growth mindset (See table 4). Participant 5 shared that she would have had a strong growth mindset, but felt one of the questions on the Mindset Quiz (Question 3) caused her some confusion. Participant 4 stated that she thought she had a growth mindset, but she wasn't sure if it would come out as having a strong growth mindset, but her score was in the strong growth mindset range. Participant 8 said "having a growth mindset with some fixed ideas seemed appropriate since I never received any formal training on the subject."

Question 8: What resources/trainings do you feel you could use to help you teach with a growth mindset?

Participant 1 stated "formal training would be beneficial, and with more training I would be able to learn how to teach with a growth mindset." Participant 2 shared that although she had attended Eric Jensen's Brain Based Learning, she felt she needed more professional development on this topic specifically. Participant 3 stated that she would be interested in attending formal training on teaching with a growth mindset to learn new ideas and different strategies to help students improve their mindset. When asked if she would be interested in attending professional development on this topic, Participant 4 said "there are so many professional development trainings that are provided that are not helpful." She added "this would be a topic that would be extremely beneficial for teachers and students" and she would happily attend a training on this topic. Participant 5 stated that formal training would be absolutely helpful. Participant 6 also felt professional training would be helpful, but shared concerns regarding there not being enough time since something always seems to come up. She shared that over the summer vacation her

hope was to research the topic further on her own time. Participant 7 felt professional development that focused on teaching with a growth mindset would be beneficial because it would teach her strategies to help students learn from their mistakes. Participant 9 shared that formal training would be helpful even though she felt she already taught with a growth mindset. She said that by "drawing attention to teaching with a growth mindset, I could build a positive classroom environment." Participant 10 stated that she would definitely attend professional development on teaching with a growth mindset and would also be interested in a doing a book study with colleagues that focused on this topic.

Table 2

Research Question 1: Codes, Themes, and Interview Questions

Research Question	Codes	Themes	Interview Question
RQ1: How do general education teachers who teach grades K-2 students with disabilities describe their knowledge and experiences about teaching with a fixed mindset versus growth mindset?	• No training • No formal training • It would be helpful • PD's on other topics	None of the teachers who participated in this research study had been provided any formal training on teaching with a growth mindset versus a fixed mindset.	This theme was derived from interview questions 1 and 4.
	• Yes, absolutely • PD's held Locally • It would be helpful	All of the teachers who participated in this research study were interested in attending professional development workshops on how to teach with a growth mindset.	This theme was derived from interview questions 4 and 8.
	• Brain is a muscle • Practice over and over • Hard work • Keep trying • Ask questions • Room to grow • Always better yourself • Fixed versus growth • Heard terms before	All of the teachers who participated in this study had some knowledge of what it means to have a growth mindset versus a fixed mindset.	This theme was derived from interview questions 1 and 2.
	• Small group lessons • Multiple methods • Highlight strengths • Build student's confidence • Peer partners • 1-1 instruction • Visuals to support instruction • Modified work • Use of praise	All of the teachers who participated in this study use some type of strategy to help improve student mindsets.	This theme was derived from interview questions 2 and 6.

Themes for Research Question 1

RQ 1 was, How do general education teachers who teach grades K-2 students with disabilities describe their knowledge and experiences about teaching with a fixed mindset versus growth mindset? This research question was addressed through responses to interview questions. RQ 1 was also addressed by the teacher's reported knowledge of the terms fixed and growth mindset.

Theme 1. None of the teachers who participated in this research study had been provided any formal training on teaching with a growth mindset versus a fixed mindset. This theme was derived from interview questions 1 and 4.

Theme 2. All participants reported that they would be interested in further increasing their knowledge and understanding of teaching with a growth mindset through professional development. The participants shared that they believed professional development on this topic would be helpful and that they would absolutely attend. Several participants stated that it would beneficial if the professional development was conducted locally. This theme was derived from interview questions 4 and 8.

Theme 3. All of the teachers reported that they had some knowledge of what it means to have a growth mindset versus a fixed mindset. This theme was derived from interview questions 1 and 2.

Theme 4. All of the teachers described some sort of strategy that they use to help teach students with a growth mindset (See Table 3). This theme was derived from interview questions 2 and 6.

Table 3

Strategies for Teaching With a Growth Mindset That Participants Used When Teaching Students With Disabilities

Strategy	***P 1***	***P 2***	***P 3***	***P 4***	***P 5***	***P 6***	***P 7***	***P 8***	***P 9***	***P 10***
Graphic organizers		*X*				*X*				
Small group		*X*		*X*						
Movement breaks		*X*								
Multiple methods		*X*				*X*				
Highlight student's strength		*X*						*X*		
Set goals				*X*						
Build confidence				*X*	*X*			*X*	*X*	
Peer partners				*X*		*X*				
Turn and talk				*X*						
Models				*X*						
1-1 instruction				*X*				*X*		
Visuals					*X*	*X*				
Hands on activities							*X*			
Motivational posters			*X*							
Modified work	*X*								*X*	
Praise	*X*							*X*		*X*
Growth mindset language								*X*		*X*

Themes for Research Question 2

RQ 2 was, How do general education teachers assess themselves in terms of teaching with a fixed versus growth mindset? After scoring each participants' responses to the Mindset Quiz, the results indicated that 8 of the 10 teachers assessed themselves to

have “strong growth mindset.” The results also indicated that 2 of the 10 teachers assessed themselves to have a growth mindset with some fixed mindset ideas.

Table 4

Participants’ Assessment Rating on Mindset Quiz

Participant	**Raw Score on Mindset Quiz**	**Mindset**
P 1	22	Strong growth mindset
P 2	22	Strong growth mindset
P 3	23	Strong growth mindset
P 4	25	Strong growth mindset
P 5	20	Growth mindset with some fixed ideas
P 6	26	Strong growth mindset
P 7	24	Strong growth mindset
P 8	21	Growth mindset with some fixed ideas
P 9	26	Strong growth mindset
P 10	27	Strong growth mindset

After I shared with each participant how they scored on the Mindset Quiz, all of the participants felt that it was an accurate representation of their teaching style with the exception of one participant.

Table 5

Participants' Interview Responses to Whether They Were in Agreement With Assessment Rating on Mindset Quiz

Participant	Agreement with Assessment Rating on Mindset Quiz
P 1	Yes
P 2	Yes
P 3	Yes
P 4	Yes
P 5	Not really
P 6	Yes
P 7	Yes
P 8	Yes
P 9	Yes
P 10	Yes

Through my research, I identified four themes from the interviews and results of the mindset quiz. These themes included: all participants received no training on how to teach with a growth mindset versus a fixed mindset, all participants were interested in attending professional development on this topic, there was some knowledge of the terms

growth versus fixed mindset, all participants use some type of strategy to help improve student mindsets, and participants assessed themselves with either a strong growth mindset or a growth mindset with some fixed mindset ideas.

Evidence of Trustworthiness

Evidence of trustworthiness was demonstrated through several methods including credibility, transferability, and dependability. Credibility was established with the use of the use of a transcript review and member checking. I emailed each participant a copy of our transcribed interview to make sure that everything was recorded accurately. The use of a relational approach helped me build trustworthiness with participants which allowed participants to be open, to engage in receptive sensibility, and self-reflect on their practices (Ravitch & Carl, 2016).

Most qualitative studies have limited transferability, often due to a small number of participants, as was the case with this study. The results of this study might have limited transferability because it could be transferred to other teachers in similar school settings (Ravitch & Carl, 2016). Additionally, this study included detailed descriptions of collected data as well as the context in which the study took place and a thorough description of the school environment in which the interviews took place. Participants characteristics such as their gender, age, and years of teaching experience was all presented.

Dependability was established by providing a clear research design and process for gathering and interpreting the collected data (Lodico et al., 2010). Evidence of dependability was demonstrated by having consistency of interview questions with each

participant. In addition, each participant completed the same Mindset Quiz. These methods helped ensure dependability as they addressed the research questions of the study.

Confirmability focuses on a researcher's ability to have relative neutrality and be free of researcher biases (Ravitch & Carl, 2016). To have confirmability, I recorded all interviews and then transcribed each one verbatim. Then, I used transcript reviewing by sending a copy of each transcribed interview to each participant to verify the validity of our interview. This helped ensure that there were no researcher biases.

Summary

In Chapter 4, I described the setting and demographics in which this study took place and data collection procedures. An analysis of data based on the research questions was presented as well as the results that emerged from conducting interviews and having the teachers assess themselves using the Mindset Quiz. Results provided important information that were relevant to answering the research questions that was used to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities. All participants in this study reported that they have not had any formal training on teaching with a growth mindset versus a fixed mindset yet all of the participants stated that they were interested in attending professional development workshops on how to teach with a growth mindset. Although the participants reported that they had no formal training about teaching with a growth mindset, all of the teachers who participated in this study had some knowledge of what it means to have a growth mindset versus a fixed mindset and stated that they use some

type of strategy to help improve students with disabilities mindsets. When the participants were asked to assess their mindset using the Mindset Quiz, all the teachers identified with either a strong growth mindset or a growth mindset with some fixed mindset ideas. In Chapter 5 the researcher will provide an in-depth discussion of the key findings of this study as they relate to the findings within the literature reviewed in Chapter 2 of this study. Conclusions and recommendations are provided.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this basic qualitative study was to examine general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in Grades K-2. Use of a basic qualitative method allowed me to gather and analyze information through semi structured interviews of teachers in order to discover their understanding and perceptions of teaching with a growth mindset. The use of teacher assessments through the Mindset Quiz (see Appendix B) allowed participants to be open and not feel judged by their colleagues. For the study's conceptual framework, I used Dweck's (1999) implicit theories of mindsets. Dweck's implicit theories of mindsets was an appropriate conceptual framework for this study because it highlighted the significance of how one's mindset can impact a person throughout their educational career.

The data analysis revealed several main themes and common codes for each research question. None of the teachers who participated in this research study reported having been provided any formal training on teaching with a growth mindset versus a fixed mindset. Also, all of the teachers were interested in attending professional development workshops on how to teach with a growth mindset. All of the teachers had some knowledge of what it means to have a growth mindset versus a fixed mindset. Additionally, all of the teachers use some type of strategy to help improve student mindsets. Last, all the teachers assessed themselves with either a strong growth mindset or a growth mindset with some fixed mindset ideas. The chapter includes an

interpretation of the findings, discussion of the limitations of this study, recommendations, and discussion of the study's implications.

Interpretation of the Findings

The results of this study have added to knowledge and the literature about teaching with a growth mindset by providing data on teachers' perceptions and experiences. Teachers may be receptive to receiving professional development about teaching with a growth mindset. The results provide insight into teachers' experiences and knowledge of teaching with a growth mindset while teaching students with disabilities in an inclusive setting. Previous researchers have highlighted the need for more professional development on teaching with a growth mindset Hanson, Bangert, et al. (2016). However, this study adds to current literature by demonstrating that teachers are willing to continue to learn ways to help teach students to have a growth mindset and are interested in growing their own mindsets.

Results provided important information that was relevant to answering the research questions on general education teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities. Although the participants in this study had never had any formal training on teaching with a growth mindset, they were familiar with the terms and assessed themselves as either having a strong growth mindset or a growth mindset with some fixed ideas. Based on the results of the self-assessment and interview questions, participants are teaching with a growth mindset with their students, but it was not possible to determine to what degree. The results support

the work of Lin-Siegler et al. (2016), who stated that applying a growth mindset in elementary schools is in an infancy stage and more research is needed to improve growth mindset strategies for elementary teachers to use. The need for additional research is evident in the participating teachers' attempts to teach students to have a growth mindset without any training. Even though the participants scored high on the mindset quiz, through the interviews it became evident that the teachers in the study were only somewhat familiar with the terms *fixed* and *growth mindset*. At times, the participating teachers were unaware that they were actually teaching with a growth mindset. This lack of awareness by teachers supports the work of previous researchers who have stated that it is important to teach students with a growth mindset though teachers are not being given any resources or training (Dweck, 2013; Eckert, 2015; Esparza et al., 2014; Gutshall, 2013; Zander et al., 2018). All participants in this study reported that they have not had any formal training on teaching with a growth mindset versus a fixed mindset.

The findings of this study confirmed that more professional development is needed to support teachers. As Rattan et al. (2015) noted, there currently is a lack of training for teachers and administrators focused on developing a growth mindset for students. Previous researchers have stated that more professional development is needed and that professional development on growth mindset theory could help teachers reflect on their practices (Hanson, Bangert et al., 2016). This finding about the lack of training is similar to the results of this study. Participants stated that they have not received any training or materials to teach students with a growth mindset. Participants reported that they had some idea of what it means to have a growth mindset; however, none of the

participants had received a single day of training on this topic. This study supports current literature by emphasizing the need for professional development to help teachers teach students with disabilities with a growth mindset. In addition, this study adds to the literature by presenting new data that demonstrate that teachers are willing to attend professional development on this topic.

Participants stated during their interviews that they were somewhat familiar with the topic, even though none of the participants reported receiving any professional development in this area. Participants did share strategies that they said they believed to be related to teaching with a growth mindset (see Table 3). Some of the strategies that were shared included the use of graphic organizers, small group instruction, 1:1 instruction, movement breaks, multiple teaching methods, highlighting the student's strength, clear goals for students, building confidence, partnering students with peers, turn and talk activities, providing students with models, visuals to support instruction, hands-on activities, hanging motivational posters around the classroom, modified assignments, use of praise, and use of growth mindset language.

Although participants shared strategies they used to teach with a growth mindset, they were still lacking in other strategies. Polirstok (2017) wrote that the use of learning/digital stores, choice maps, computer programs (such as Brainology), direct growth mindset instruction, peer tutoring, opportunities for self-evaluation, and teaching students to regulate their own academic and behaviors through self-talk can all help students develop a strong growth mindset. Other strategies for teaching with a growth

mindset supported by literature include the use of differentiation, the use of graphic organizers, building resilience, flexible groupings, clear expectations, the use of motivation and praise, and the use of growth mindset language (Ricci, 2013). Ricci (2013) stated that it is imperative to start working with educators and children as soon as possible to help create a belief system that all students are capable of succeeding.

Limitations of the Study

There are various limitations that may be present in this study. One limitation of this study was the small sample size which included 10 teachers. Additionally, this study was conducted in one elementary school within a large school district. The study was also limited to only participants who were general education teachers in Grades K-2 who had taught special education students for more than three years in an inclusive classroom. Because participants were limited to Grades K-2, this limited the transferability of the results to all other grade levels. Because the results of this study are based on self-reports from teachers, teachers in the study may have responded with a biased representation of how they teach in terms of fixed versus growth mindset. Another limitation was that three of the interviews took place over the phone. This may have limited the amount of information that may have been shared through a face-to-face interview.

Recommendations

In this study, I examined general education teacher's knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive

classroom for students in grades K-2. It is recommended that one-on-one interviews with administrators be conducted to gain an understanding of their experiences and knowledge regarding a growth mindset. During interviews in this study, it was reported that neither the school nor district did not provide any professional development on teaching with a growth mindset. An additional study should investigate why administrators may or may not have provided any professional development trainings to educators within their building. Additionally, it would be helpful for a study to interview special education teacher to examine how they support general education teachers' in promoting a growth mindset while teaching students with disabilities in an inclusive classroom for students in grades K-2. It would be beneficial to include special education teachers to further investigate special education teachers' knowledge and experiences because special education teachers are skilled with working with students with disabilities and may have different strategies that they use to teach students. Furthermore, it would be useful to know what training special education teachers have received on this topic and whether or not they would be willing to attend professional development.

Recommendations for Further Practice

It is recommended that administrators provide professional development trainings in their school building so educators can learn specific strategies on how to teach with a growth mindset for special education students. This study will help educators recognize the type of mindset that they use in the classroom and how it can impact student learning. It is also recommended that staff members be given the opportunity to collaborate with each other on strategies they use to promote a growth mindset for students with

disabilities. The teachers interviewed in this study provided several strategies that they used to promote a growth mindset for students with disabilities, however, many of those strategies differed from one another. The opportunity to collaborate may provide teachers the opportunity to share strategies that they feel may help improve their ability to teach students with a growth mindset.

Implications

The results of this study may positively affect social change in the field of education. Throughout this study, I have provided research on the lack of training and preparedness that educators have in teaching with a growth mindset for students with disabilities. Despite the lack of professional development that has been offered by the district, all of the participants in this study stated that they were willing to increase their knowledge and understanding on this topic. Based on the results of my study, I hope to positively impact the field of education and special education by making educators and administrators more aware of mindset strategies that are and are not being used in classrooms. This study will help student welfare and learning by bringing attention to the concept of mindsets. Positive social change can result through the implementation of better practices and professional development on this topic to encourage the growth mindsets of teachers in all classrooms.

Conclusion

Researchers have examined the impact of teaching with a growth mindset, but little is known about what teachers' beliefs and understandings are about teaching with a growth mindset. The purpose of this study was to examine general education teacher's

perceptions of teaching with a growth mindset while teaching students with disabilities in an inclusive classroom for students in grades K-2. Responses to the Mindset Quiz allowed general education teachers to assess themselves in terms of teaching with a fixed versus growth mindset. Participant responses provided an understanding of how general education teachers who teach grades K-2 students with disabilities describe their knowledge about teaching with a fixed mindset versus growth mindset. Responses revealed that although all participants have never had any professional development on teaching with a fixed or growth mindset, all participants were somewhat familiar with the topic and the terms fixed or growth mindset. They also described themselves to either have a strong growth mindset or a growth mindset with some fixed ideas. Additionally, all participants responded that they would be interested in attending professional development on teaching with a growth mindset. Through the interview process, it was shared that the teachers use a variety of different strategies with students with disabilities to improve their mindsets. Some of the strategies shared included the use of praise, growth mindset language setting individual goals for students, partnering students with peers and highlighting the student's strengths. Through the results of this study, I hope that positive social change can be accomplished by adding knowledge about teaching with a growth mindset by providing data about teachers' perceptions and experiences. Although information on teachers' knowledge and experiences regarding a growth mindset while teaching students with disabilities in an inclusive classroom for students in grades K-2 is presented in this study, more research is needed to examine teacher perception of teaching with a growth mindset.

References

Babbie, E. (2016). *Basics of social research* (7th ed.). Boston, MA: Cengage Learning.

Bedford, S. (2017). Growth mindset and motivation: A study into secondary school science learning. *Research Papers in Education, 32,* 1-20 doi: 10.1080/02671522.2017.1318809

Bell, S. D., Smith, S. J., & Basham, J. D. (2016). Case in Point: A statewide blended learning initiative for students with disabilities: What makes it work? A director's perspective. *Journal of Special Education Leadership, 29*(2), 113-116. Retrieved from https://www.learntechlib.org/p/192625/Bennett, J. S. (2014). *A case study of administrators' perspectives concerning least restrictive environment for special education students* (Doctoral dissertation). Retrieved from https://ttu-ir.tdl.org/bitstream/handle/2346/58654/BENNETT-DISSERTATION-2014.pdf?sequence%3D1 Blazar, D., & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational Evaluation and Policy Analysis, 39*(1), 146-170.

doi: 10.3102/0162373716670260.

Boaler, J. (2013, March). Ability and mathematics: The mindset revolution that is reshaping education. *Forum, 55*(1), 143-152. doi: 10.2304/forum.2013.55.1.143

Boaler, J., Dieckmann, J. A., Perez Núñez, G., Liu Sun, K., & Williams, C. (2018). Changing students' minds & achievement in mathematics: The impact of a free online student course. *Frontiers in Education, 3*, 1-7.

doi: 10.3389/feduc.2018.00026 Brooks, R. B. (2004). To touch the hearts and minds of students with learning disabilities: The power of mindsets and expectations. *Learning Disabilities: A Contemporary Journal*, *2*(11), 1-8. Retrieved from http://www.drrobertbrooks.com

Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*, *113*(31), 8664-8668. doi: 10.1073/pnas.1608207113

Cook, E., Wildschut, T., Thomaes, S. (2015). *Understanding adolescent shame and pride in a school context: The impact of perceived academic competence and a growth mindset* (Doctoral dissertation, University of Southampton). Retrieved from https://eprints.soton.ac.uk/382280/

Davis, V., & Persellin, D. C. (2017). Harnessing the power of failure in your music classroom: Grit, growth mindset, & greatness. Southwestern Musician, 85(7), 68-73. Retrieved from https://digitalcommons.trinity.edu/cgi/viewcontent.cgi?article=1002&context=music_faculty

De Kraker-Pauw, Van Wessel, Krabbendam, and Van Atteveldtis (2017). Teacher mindsets concerning the malleability of intelligence and the appraisal of achievement in the context of feedback. *Frontiers in Psychology,* 8, 1-13. doi: 10.3389/fpsyg.2017.01594

Dweck, C. (2016). Growth mindset doesn't promise pupils the world. The Times Educational Supplement. Retrieved from https://www.tes.com/news/growth-mindset-doesnt-promise-pupils-world

Dweck, C. (1999). Self-theories: Their role in motivation, personality, and development. Philadelphia, PA. Taylor & Francis.

Dweck, C. & Rule, M. (2013). Mindsets: Helping students to fulfill their potential. *Smith College Lecture Series, North Hampton, MA.* Retrieved from https://www.smith.edu/president-kathleen-mccartney/speeches/saq-winter-2014

Eckert, J. (2014). Teach like a novice: Lessons from beginning teachers. *Phi Delta Kappan*, 96(13). doi: 10.1177/00317217455340

Eller, M., Fisher, E., Gilchrist, A., Rozman, A., & Shockney, S. (2016). Is inclusion the only option for students with learning disabilities and emotional behavioral disorders?. *The Undergraduate Journal of Law & Disorder, 5*, 79-86. Retrieved from https://scholarworks.iu.edu/journals/index.php/lad/article/view/20704

Esparza, J., Shumow, L., & Schmidt, J. A. (2014). Growth mindset of gifted seventh grade students in science. NCSSSMST Journal, 19(1), 6-13. Retrieved from https://files.eric.ed.gov/fulltext/EJ1045824.pdf

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The qualitative report*, *20*(9), 1408-1416. Retrieved from https://nsuworks.nova.edu/tqr/vol20/iss9/3

Gutshall, C.A. (2013). Teacher mindsets for students with and without disabilities. *Psychology in Schools*, 50(10), 1073- 1083. doi: 10.1002/pits.21725

Haimovitz, K., & Dweck, C. S. (2017). The origins of children's growth and fixed Mindsets: New research and a new proposal. *Child development*, *88*(6), 1849-1859. doi: 10.1111/cdev.12955

Hanson, J., Bangert, A., & Ruff, W. (2016). Exploring the relationship between school growth mindset and organizational learning variables: Implications for multicultural education. *Journal of Educational Issues*, *2*(2), 222-243. Doi: https://doi.org/10.5296/jei.v2i2.10075

Hanson, J., Ruff, W., & Bangert, A. (2016). Investigating the relationship between school level and a school growth mindset. *Journal of Educational Issues*, *2*(2), 203-221. doi: 10.5296/jei.v2i2.10052

Hartly, K.C. (1992). Socialization by way of symbolic interactionism and culture theory: A communication perspective. Retrieved from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED355560

Johnston, P. (2014). Opening Minds: Using Language to Change Lives. Portland, Maine: Stenhouse Publishers.

Justice, L. M., Logan, J. A., Lin, T. J., & Kaderavek, J. N. (2014). Peer effects in early childhood education: Testing the assumptions of special-education inclusion. *Psychological Science*, *25*(9), 1722-1729. doi: 10.1177/0956797614538978

Laurian-Fitzgerald, S. & Roman, A. F. (2016). The effect of teaching cooperative learning skills on developing young students' growth mindset. *Journal Plus Education*, *14*(2), 68-83. Retrieved from file:///C:/Users/Chris/Downloads/674-Article%20Text-2162-1-10-20160804.pdf

Lin-Siegler, X., Dweck, C. S., & Cohen, G. L. (2016). Instructional interventions that motivate classroom learning. *Journal of Educational Psychology*, *108*(3), 295. doi: 10.1037/edu0000124

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). *Methods in educational research: From theory to practice* (Vol. 28). John Wiley & Sons.

McCutchen, Jones, Carbonneau, & Mueller, 2016). Mindset and standardized testing over time. *Learning and Individual Differences*, *45*, 208-213. doi: 10.1016/j.lindif.2015.11.027

Meehan, R. J. (2017). What is co-teaching? *What's missing: Best practices for teaching students with disabilities*, 83. Retrieved from https://books.google.com/books?hl=en&lr=&id=QKVaDgAAQBAJ&oi=fnd&pg=PA83&dq=Meehan,+R.+J.+(2017).+what+is+coteaching&ots=2R1kVgYdgm&sig=WD8u1Lnewae6DGVm8n8KtO5wg3g#v=onepage&q&f=false

Meierdirk, C. (2016). Developing a growth mindset. *Teaching Business & Economics*, *20*(1), 25. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=eue&AN=114521094&site=ehost-live&scope=site

Merriam, S. B. (2002). Qualitative research in practice: Examples for discussion and analysis. San Francisco, CA: Jossey-Bass.

Myers, C. A., Wang, C., Black, J. M., Bugescu, N., & Hoeft, F. (2016). The matter of motivation: Striatal resting-state connectivity is dissociable between grit and growth mindset. *Social cognitive and affective neuroscience*, *11*(10), 1521-1527. doi:10.1093/scan/nsw065.

National Center on Scaling Up Effective Schools. (2014). Developing a growth mindset among high school students**.** *Retrieved from* http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED561249

National Center for Educational Statisitics. (2016). The condition of education. Retrieved from http://neces.ed.gov/programs/coe/indicator_cge.asp

National Center for Special Education Research (n.d.) Perceptions and expectations of youth with disabilities (NLTS2) . Retrieved from https://ies.ed.gov/ncser/pubs/20073006/tables/table_a5.asp?referrer=report

O'Brien, K., & Lomas, T. (2017). Developing a growth mindset through outdoor personal development: Can an intervention underpinned by psychology increase the impact of an outdoor learning course for young people?. *Journal of Adventure Education and Outdoor Learning*, *17*(2), 133-147. Retrieved from https://repository.uel.ac.uk/download/4b6eac586f045bb4ff712b2ee1f85211a317d6c477867ade577a5fc88e467f63/963760/Mindset%2520Journal%2520Article%2520%2528FINAL%2529%2520Tim%2520Lomas.pdf

O'Rourke, E., Peach, E., Dweck, C. S., & Popovic, Z. (2016). Brain points: A deeper look at a growth mindset incentive structure for an educational game. In *Proceedings of the Third (2016) ACM Conference on Learning@ Scale* (pp. 41-50). ACM. doi: 10.1145/2876034.2876040

O'Sullivan, C., & Ríordáin, M. N. (2017) Examining the effect of female students' mindset on their approach to challenges when learning mathematics. *Journal of Teacher Action Research,* 4 (1).

Patton, M. Q. (2015). Qualitative research and methods: Integrating theory and practice. Thousand Oaks, CA: Sage publications.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological science, 26*(6), 784-793. doi: 10.1177/0956797615571017

Polirstok, S. (2017). Strategies to improve academic achievement in secondary school students: Perspectives on grit and mindset. *SAGE Open*, *7*(4), 1-9. doi: 10.1177/2158244017745111

Priester, J. R., & Petty, R. E. (2016). A research dialogue on mindsets. *Journal of Consumer Psychology*, *26*(1), 125-126. doi: 10.1016/j.jcps.2015.06.016

Ramirez, G., Hooper, S. Y., Kersting, N. B., Ferguson, R., & Yeager, D. (2018). Teacher Math anxiety relates to adolescent students' math achievement. *AERA Open*, *4*(1), 2332858418756052. doi: 10.1177/2332858418756052

Rattan, A., Savani, K., Chugh, D., & Dweck, C. S. (2015). Leveraging mindsets to promote academic achievement policy recommendations. *Perspectives on Psychological Science*, 10(6), 721-726. doi: 10.1177/1745691615599383

Rau, A. (2016). Exploring the influence of teacher language on fourth grade students' mindsets: A multi-case study. *The Qualitative Report*, *21*(9), 1684-1707. doi: 10.1177/2158244017745111

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: Bridging the conceptual, theoretical, and methodological*. Thousand Oaks, CA: Sage Publications

Rhew, E., Piro, J. S., Goolkasian, P., & Cosentino, P. (2018). The effects of a growth mindset on self efficacy and motivation. *Cogent Education*, *5*(1), 1492337. doi: 10.1080/2331186X.2018.1492337

Ricci, M. C. (2013). *Mindsets in the Classroom*. Prufrock Press.

Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. Sage.

Rumrill, P. D., Cook, B. G., & Wiley, A. L. (2011). *Research in special education: Designs, methods, and applications.* Springfield, IL: Charles C. Thomas.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Sandstrom, K.L, Martin, D.D., & Fine, G.A. (2016). *Symbolic interactionism at the end of the century*. In Handbook of social theory. London, England: SAGE Publications Ltd.

Seaton, F. S. (2018). Empowering teachers to implement a growth mindset. *Educational Psychology in Practice*, *34*(1), 41-57. doi: 10.1080/02667363.2017.1382333

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, *22*(2), 63-75. doi: 10.3233/EFI-2004-22201

Simpson, J. F., Thurston, R. J., & James, L. E. (2014). Exploring personality differences of teachers for co-teaching. *Journal of Instructional Psychology*, 41. Retrieved from https://www.essaytyping.com/exploring-personality-differences-teachers-co-teaching/

Snipes, J., & Tran, L. (2017). Growth mindset, performance avoidance, and academic behaviors in Clark County School District. *Regional Educational Laboratory West*, 20172026. Retrieved from https://files.eric.ed.gov/fulltext/ED573495.pdf

Stamford University. (2015). PERTS Checklist of Growth Mindset Teaching Practices. Retrieved from https://www.mindsetkit.org/static/files/Checklist_Growth_Mindset_Teaching_Practices.pdf

Sun, K. L. (2018). The role of mathematics teaching in fostering student growth mindset. *Journal for Research in Mathematics Education*, *49*(3), 330-355. doi: 10.5951/jresematheduc.49.3.0330

Tan, P. (2017). Advancing inclusive mathematics education: Strategies and resources for effective IEP practices. International Journal of Whole Schooling, 13(3), 28-38. Retrieved from https://www.youcubed.org/wp-content/uploads/2018/10/Tan 2017.pdf

The University of North Carolina at Chapel Hill. *(2015). Mindset Quiz. Retrieved from* https://studentsuccess.unc.edu/files/2015/08/MINDSET-Quiz.pdf

Tirri, K., & Kujala, T. (2016). Students' mindsets for learning and their neural underpinnings. *Psychology*, *7*(09), 1231. doi: 0.4236/psych.2016.79125

Truax, M. L. (2018). The impact of teacher language and growth mindset feedback on writing motivation. *Literacy Research and Instruction*, *57*(2), 135-157. doi: 10.1080/19388071.2017.1340529

United States Education Department. (n.d). About IDEA. Retrieved from https://sites.ed.gov/idea/about-idea/

Wiersema, J. A., Licklider, B., Thompson, J. R., Hendrich, S., Haynes, C., & Thompson, K. (2015). Mindset about intelligence and meaningful and mindful effort: It's not my hardest class any more!. *Learning Communities: Research & Practice*, *3*(2),3. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1112509.pdf

Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., Lee, H.Y., O'brien, J., Flinet K., Roberts, A. & Trott, J. (2016). Using design thinking to improve psychological interventions: The case of the growth mindset during the transition to high school. *Journal of educational psychology*, *108*(3), 374. doi: 10.1037/edu0000098

Zander, L., Brouwer, J., Jansen, E., Crayen, C., & Hannover, B. (2018). Academic self efficacy, growth mindsets, and university students' integration in academic and social support networks. *Learning and Individual Differences*, *62*, 98-107. doi: 10.1016/j.lindif.2018.01.012

Appendix A: Interview Questions

Demographics:

Sex: Male or Female

Number of years teaching:

Age bracket: 21-25, 25- 30, 30-35, 35-40, 40-45, 45-50, 55- 60, 60- 65, 65 +

How would you describe your knowledge about teaching with a growth mindset versus fixed mindset?

What is you experience teaching with a growth mindset? Do you have specific strategies that you use with your students?

What type of mindset you feel you teach with, fixed or growth, why?

Have you had any formal training about teaching with a growth mindset?

Do you think intelligence can be improved?

What strategies if any do you use to promote a growth mindset for students with disabilities in grades K-2?

Based on Dweck's mindset quiz, your results indicate that you have a ____ mindset. Do you feel this is an accurate representation, why?

Appendix B: Dweck's (2006) Mindset Quiz

MINDSET QUIZ

1. Circle the number for each question which best describes you
2. Total and record your score when you have completed each of the 10 questions
3. Using the SCORE chart, record your mindset

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
Your intelligence is something very basic about you that you can't change very much	0	1	2	3
No matter how much intelligence you have, you can always change it quite a bit	3	2	1	0
Only a few people will be truly good at sports, you have to be born with the ability	0	1	2	3
The harder you work at something, the better you will be	3	2	1	0
I often get angry when I get feedback about my performance	0	1	2	3
I appreciate when people, parents, coaches or teachers give me feedback about my performance	3	2	1	0
Truly smart people do no need to try hard	0	1	2	3
You can always change how intelligent you are	3	2	1	0
You are a certain kind of person and there is not much that can be done to really change that	0	1	2	3
An important reason why I do my school work is that I enjoy learning new things	3	2	1	0

22-30= Strong Growth Mindset

17-21 = Growth with some Fixed ideas

11-16 = Fixed with some growth ideas

0-10 = Strong fixed mindset

My Score:

My Mindset:

The University of North Carolina at Chapel Hill. (2015). Mindset Quiz. Retrieved from https://studentsuccess.unc.edu/files/2015/08/MINDSET-Quiz.pdf

Appendix C: Permission to Use Mindset Quiz

UNC
COLLEGE OF
ARTS & SCIENCES

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

OFFICE OF UNDERGRADUATE EDUCATION
3010 STEELE BUILDING
214 E. CAMERON AVE.
CAMPUS BOX 3504
CHAPEL HILL, NC 27599-3504

T 919.843.7773
F 919.843.6557

March 26, 2019

Ms. Kimberly Hellthaler
hellthalerk@norwalkps.org
75 Boroskey Road
Fairfield, CT 06824

Dear Ms. Kimberly Hellthaler,

We grant you permission to use our Mindset Quiz, adapted from Carol Dweck's book *Mindset* (2007), within your research and dissertation. Please cite our office, the Office of Undergraduate Retention at the University of North Carolina at Chapel Hill.

Best of luck!

Sincerely,

KCartmell CaPowell

Katie Cartmell & Candice Powell
Associate Directors for Retention
Office of Undergraduate Retention
University of North Carolina at Chapel Hill
3rd floor Steele Building,
Campus Box 3504
Chapel Hill, NC 27599