PRACTITIONER PERCEPTION OF THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICES IN THE SPECIAL EDUCATION CLASSROOM: A CASE STUDY

by

Jolene G. Swezey

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

The purpose of this qualitative instrumental case study was to identify factors that inform the decision-making process of 11 special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School (pseudonym). The theoretical framework for this study is Lipsky's street-level bureaucracy theory. Street-level bureaucracy theory states that social services workers use discretion to administer required policies. Understanding how special educators act as street-level bureaucrats will provide new insights into teacher perception of the decision-making process for implementing evidence-based practices. The central research question asked, What are the factors that inform the decision-making process for special education practitioners for the implementation of evidence-based practices in the classroom? Data were collected using individual interviews, an online focus group, and documents/archival records. Data analysis consisted of categorical aggregation, development of naturalistic generalizations, and development of themes. Five themes developed from the research of this study: collaboration, expectations, environment, individualization, and training. This study revealed that substantial administrative support, mentoring, collaboration, coaching, ongoing professional development, and access to resources were vital factors to implementing new practices within schools.

Keywords: access, evidence-based practices, implementation, post-secondary education professionalism

Copyright Page

Dedication

To James

For your steadfast encouragement and support. With all my being, I love you!

Acknowledgments

I could not have finished this dissertation without the blessings, mercy, and grace of God. He is my rock and my support. I thank Him for instilling in me the desire and drive to accomplish this life-long goal and the resources to attain it.

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To the faculty and staff with whom I work daily, thank you for your support and encouragement. I am grateful to be part of such a supportive and encouraging learning community. Go Colonials.

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List of Abbreviations

Council of Exceptional Children (CEC)

Curriculum-based Measurement (CBM)

Education for All Handicapped Children Act (EACHA)

Free and Appropriate Education (FAPE)

Least Restrictive Environment (LRE)

Individuals with Education Improvement Act (IDEIA)

Individualized Education Program (IEP)

Institutional Review Board (IRB)

No Child Left Behind (NCLB)

National Center on Intensive Intervention (NCII)

Randomized Controlled Trial (RCT)

Response to Intervention (RTI)

School-wide Positive Behavioral Supports (SWPBS)

Significant Cognitive Disabilities (SCD)

Special Education (SPED)

CHAPTER ONE: INTRODUCTION

Overview

Due to the increased focus on assessment and accountability in education, practitioners need successful methods to implement evidence-based practices in their classrooms (Spaulding, 2009). However, there is a gap in the research describing why many of the published research practices have not been implemented in the classroom (Boardman et al., 2005). The lack of implementation is a problem because students need teachers who use best practices. Students need to become productive members of society. Evidence-based practices can affect meaningful change (Slavin, 2002), especially for students who require the most effective instruction to be successful (Cook & Cook, 2013). The breach between the published research and the implemented methods in the classroom is well documented (Greenway, McCollow, Hudson, Peck, & Davis, 2013; Greenwood & Abbott, 2001; Gunter & Brady, 1984; Odom, 2009; Vaughn, Hughes, Schumm, & Klingner, 1998).

The most recent data from 2018 indicated that seven million, or 14%, of all public-school students receive special education services under the Individuals with Disabilities Education Act (IDEA; National Center for Education Statistics, 2019). Among students receiving special education services, 34% had specific learning disabilities (National Center for Education Statistics, 2019). Since practitioners are the people who will implement best practices established through empirical research, it is essential to understand their perspectives of classroom pedagogical practices.

The purpose of this qualitative instrumental case study was to identify factors that inform the decision-making process of 11 special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School (pseudonym). Exploring

teachers', paraprofessionals', and administrators' perceptions are critical in gaining a comprehensive understanding of what factors impact the decision-making process of special education teachers for the implementation of evidence-based practices in the classroom. A case study design was used because it examined a contemporary phenomenon within a real-world setting (Yin, 2018). This chapter presents and explains the essential material regarding the study. This chapter's subsections provide detailed content about the background, situation to self, problem statement, purpose, significance of the study, and research questions.

Background

With the implementation of No Child Left Behind (2002) came an increased emphasis on research-based practices. Seven million public school students receive special education services under IDEA (National Center for Education Statistics, 2019). In future years, this group of people will significantly impact the economy and the workforce. Over the last two decades, many evidence-based practices have been developed, but they are not always implemented in the special education classroom, whether inclusive or adaptive (Greenway et al., 2013). It is vital to prepare these students to be good citizens and members of society. Understanding the perspectives of practitioners in implementing best practices is the first step.

Historical

In the 1970s, legislation was passed which allowed students with disabilities access to the general curriculum (Greenway et al., 2013), starting with the Education for All Handicapped Children Act (EACHA). It was passed in 1975 and required a free and appropriate education (FAPE) for students with disabilities (Gordon, 2006). This education must meet the student's unique needs and prepare them for their future (EACHA, 1975). This education must also follow an individualized education program (IEP), which provides an educational benefit for the

student (EACHA, 1975). Students must also be placed in the least restrictive environment (LRE; Gordon, 2006). The LRE mandate requires that students be placed with their grade-level education peers as often as possible (Ryndak et al., 2009).

In 2004, the legislation was reauthorized under the name Individual Disabilities Improvement Education Act (IDEIA); lawmakers sought to align IDEIA with No Child Left Behind (NCLB), a reauthorization of the 1965 Elementary and Secondary Education Act (ESEA; Etscheidt, 2011). IDEIA proponents claim that it encourages evidence-based practices, accountability, and increased teacher qualifications (Etscheidt, 2011). It also requires performance indicators and measurable annual outcomes (Gordon, 2006). In addition, NCLB requires that students make adequate yearly progress toward 100% proficiency (Gordon, 2006). Critics argue that NCLB's accountability requirements weaken the IEP while causing standardization to be the priority (Owen, 2010).

Currently, seven million public school students receive special education services under IDEIA (National Center for Education Statistics, 2019). At first, this idea of special education services was met with resistance in the educational community; however, the educational community has since moved from apprehension to acceptance of special education services and, in part, to mainstreaming some students (Greenway et al., 2013). Teachers in an inclusive setting must consider adapting the curriculum for their special education students. However, the general education teachers in these contexts have more influence on the curriculum choices made for special education students in the general classroom than the special education teacher. In contrast, teachers in adaptive classrooms have more autonomy (Schulman, 2016).

The shift from access to outcome has had profound effects on education (Etscheidt, 2011). Some educators believe that IDEIA and NCLB "reflect a powerful and proactive mission

in raising the educational standards and achievement level" (Blau, 2007, p. 3) for students with disabilities. The U.S. Department of Education called it a change from a culture of progress to a culture of results. The results have been to shift the goal from socialization and LRE to maximizing students' potential (Roberts, 2009). Due to the increased focus on assessment and accountability in education, practitioners need successful methods to implement evidence-based practices in their classrooms (Spaulding, 2009). According to Werts et al. (1996), 90% of the teachers surveyed had a problem integrating a special education student in the classroom. In addition, there is still a question about the definition of the term "access." What does it mean for a special education student to have "access" to the general curriculum? However, access issues might not matter if educators continue to advocate for high-quality instruction and engaging activities for all students in special education (Timberlake, 2014).

Social

Economic costs to society associated with childhood disability are estimated at $20,000 to $60,000 U.S. dollars per child per year, with an average of $30,500 (Stabile & Allin, 2012). Therefore, it is vital to understand how to support students with disabilities to provide successful educational opportunities and help this population of students transition into society while becoming good citizens and contributing members of society. The unemployment rate for workers with disabilities was more than twice that of non-disabled workers in 2018 (U.S. Bureau of Labor Statistics, 2019). This is a rate disparity that has persisted over time (McGrew, Scott, & Madowitz, 2018). Even though many students with disabilities face discrimination when entering the workforce (Altiraifi, 2019), some take matters into their own hands. It turns out that people with disabilities are nearly twice as likely to start their own businesses than their counterparts: 11% compared to 6%, respectively (Paynter, 2018). Providing adequate instruction

and educational opportunities is vital to ensure students with a disability access the job market and the skills they need to be successful (Altiraifi, 2019).

Higher levels of education are essential for students with disabilities, just as they are for their counterparts. According to national statistics, 31% of adults with disabilities who have a high school diploma or less are employed. In comparison, 44% of adults with disabilities and some college, and 59% of adults with disabilities and a post-secondary degree are employed (Rosa & Bateman, 2018). Since evidence-based practices are the interventions that have proven to be effective, it stands to reason that they would also be the interventions that would help students reach their potential. Preparing those future workers happens in special education classrooms. In the past 30 years, the culture of education has changed to view special education not as a place but as a service that can occur anywhere (Ryndak et al., 2009). Special education classrooms include both inclusive classrooms and adaptive classrooms. These two contexts can provide different factors, variables, and influences on special education teachers.

Theoretical

When considering the factors that contribute to implementing evidence-based practices in special education classrooms, it is crucial to examine the literature on schools' organizational behavior and reform implementation. Dorn (2010) included four distinct theories that immerged from the literature regarding the implementation of formative assessments, including change agent's entrepreneurialism, scaling-up, street-level bureaucracy theory, and displaced responsibility, which range from more optimistic to more pessimistic. According to change agents entrepreneurialism, people can act as entrepreneurs and bring about organizational change through continued direction to expectations (McLaughlin, 1990). Scaling-up is described as increasing the use of evidence-based practices until the research-to-practice gap is closed.

Organizations vary on understanding and commitment when research is practiced in local schools, which results in a loss of fidelity (Carnine, 1997). In educators' view as street-level bureaucrats, practitioners must make choices among vital priorities (Lipsky, 2010). Although practitioners want to do their best, sometimes they just do what they can due to limited resources such as time, materials, or training. No school can educate all students ideally in this theory; therefore, the day-to-day decisions about implementing any reform water down every reform (Lachat & Smith, 2005), including the use of evidence-based practices. Finally, the displaced responsibility theory indicates that practitioners blame others rather than taking responsibility for change upon themselves (Calhoun, 1973; Dreebén, 1968).

Street-level bureaucracy theory is a theory that impacts this study (Lipsky, 2010). Street-level bureaucracy theory states that when policies are implemented and open to interpretation, social or human services workers who implement them determine outcomes as they use their discretion to apply the policies (Lipsky, 2010). It describes the process people use to make decisions on the spot (Timberlake, 2016). Street-level bureaucrats may include teachers, police officers, caseworkers, and others who network with the public and decide the distribution of resources (Lipsky, 2010). In this case, the term "bureaucracy" is not meant as a negative term but serves to describe organizations mired with numerous rules and hierarchy, which serve the public as a distributor of federal resources (Brodkin, 2003; Lipsky, 2010). Public schools demonstrate a bureaucracy’s characteristics through the rules and procedures that guide decisions, create predictability, and maintain stability in work outcomes (Scott & Davis, 2007). Special educators function as street-level bureaucrats when they implement federal, state, and local educational policy, face daily demands for their time, hold professional certification, and serve students with an assortment of needs and strength while possessing fewer resources than

they need to do the job (Timberlake, 2014).

When policies are enacted, they come from the top down. Practitioners use their discretion to decide how those policies are implemented (Lipsky, 2010). However, practitioners often do not do what they want to do, but what they can do (Brodkin, 1997), which is often a result of limited resources (Lipsky, 2010). Evans (2010) found that perceptions of professionalism in social workers limited senior management's influence on practice both through the limitations discussed by Lipsky (2010) and the shared ideas and commitments of workers. The process teachers use to make decisions in the classroom is consistent with research in other occupations regarding how that discretion is used (Timberlake, 2016). Key is practitioner reflection (Brodkin, 2012) and open discussions about the normative judgment workers have over policy. Organizational work cultures that enable conversation about discretion among workers and between workers and their supervisors promote decisions that are both practical and fair (Maynard-Moody & Musheno, 2012).

Special education teachers are mindful of the power and influence they have regarding decision making, and they are deeply influenced by held values and the profession's norms (Greenway et al., 2013; Timberlake, 2016). Teachers' daily work in classrooms represents where policy is enacted and where access to evidence-based practices transpires in the real world. Understanding how special educators act as street-level bureaucrats provides new insights into teacher perception of the decision-making process for implementing evidence-based practices.

Situation to Self

I desired to conduct this empirical research to focus on factors that impact the decision-making process of special education teachers for the implementation of evidence-based practices in the classroom to teachers, administrators, and researchers. As a practitioner in the classroom,

I have seen firsthand the impact of the use of evidence-based practices and non-evidence-based practices. I have also seen the challenges in bridging the gap from the perspective of the classroom. I was motivated to contribute to the body of knowledge so that practitioners may be more aware of the useful tools for implementing evidence-based practices for special education students.

Pragmatism is the research paradigm I employed because I focused on what works for teachers as the truth (Creswell, 2013). For the teacher, the truth is whether a practice works or not. When an evidence-based practice helps students reach their potential, it demonstrates the truth of its effectiveness practically. This study's philosophical assumptions are ontological and axiological. It is ontological because the research focused on the reality of the implementation of evidence-based practices in special education, as seen through the perspectives of teachers, paraprofessionals, and administrators (Creswell, 2013). It is axiological because it looks at what practitioners' value.

Problem Statement

The problem is that many factors affect the implementation of evidence-based practices in the classroom (Cavendish et al., 2020). Due to the shift to accountability (Cain, Brindley, Brown, Jones, & Riga, 2019; Spaulding, 2009), there is a need to investigate what those factors are and how they affect the decision-making process. However, there is a gap between the research information we have and its implementation in the classroom (Boardman et al., 2005; Greenway et al., 2013; Knight et al., 2019). There is a need for research about practitioners' perspectives regarding implementing evidence-based practices to identify the resources and barriers that impact implementation (Cavendish et al., 2020; Knight et al., 2019; Schulman, 2016). Therefore, this research identified factors that inform the decision-making process of 11

special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School. There is a need to understand those factors in an effort to increase the use of evidence-based practices in the classroom and drive data-based decision making (Swain & Hagaman, 2020).

Purpose Statement

The purpose of this qualitative instrumental case study was to identify factors that inform the decision-making process of 11 special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School. Evidence-based practices are generally defined as follows: "practices and interventions are most effective and efficient for ensuring optimal student achievement" (Spaulding, 2009, p. 3). The theory guiding this study is street-level bureaucracy theory. In the view of educators as street-level bureaucrats, practitioners must make choices among vital priorities (Lipsky, 2010). Although practitioners want to do their best, they sometimes do what they can with limited resources such as time, materials, or training. This research reveals the factors which influence the implementation of evidence-based practices in special education classrooms.

Significance of the Study

Over seven million public school students currently receive special education services under IDEIA (National Center for Education Statistics, 2019). As these students become adults, they will significantly impact the future economy and the workforce. Educators need to prepare these adults to be productive members of society. Many evidence-based practices have been developed over the last two decades. Still, they are not always implemented (Spaulding, 2009), whether in inclusive or adaptive classrooms (Greenway et al., 2013). It is critical to prepare these students to be good citizens and members of society. I was motivated to conduct this

empirical research to convey this important information to the field of education. I desired to lend knowledge to the field of research to increase awareness of factors that impact practitioners' perspectives in implementing evidence-based practices, and this study significantly contributes to this endeavor.

With the view that educators are street-level bureaucrats, practitioners are the people who implement policies and reforms. Due to limited time, materials, and training, these reforms are not implemented with fidelity across organizations. There is a need to examine what makes implementation successful (Dorn, 2010). In decision-making, the process is complicated (Greenway et al., 2013) and varies based on their roles (Schulman, 2016). Teachers consider organizational limitations and the value of resources when implementing evidence-based practices (Greenway et al., 2013), specifically in relation to student need, even when under pressure to implement a specific policy (Boardman et al., 2005). Cavendish et al. (2020) found that teachers consider student needs and training when implementing evidence-based practices. In addition, they cite the benefit of collaboration and partnerships with all stakeholders. Swain and Hagaman (2020) found a need for professional development regarding efficient practices for implementing data-based decision-making and continued support for the teacher. This study examined the factors that impact practitioners' perceptions when implementing evidence-based practices. This research added to the body of knowledge regarding practitioners as street-level bureaucrats by revealing which resources of time, materials, and training practitioners found helpful in implementing evidence-based practices.

This study expanded the understanding of practitioners' perspectives in their work as street-level bureaucrats in implementing evidence-based practices in special education classrooms. In addition, the results of this research are essential to the teachers and

administrators of Central Combined School because the study uncovers insights regarding current practice and reveals paths of action for better evidence-based practice implementation. This study benefits researchers because it illuminates teachers' perceptions, and it helps the administration by revealing areas of support to remove barriers to implementation.

Research Questions

The purpose of this qualitative instrumental case study was to identify factors that impact the decision-making process of special education teachers for the implementation of evidence-based practices in the classroom. Research questions guide the direction of the study (Creswell, 2013). The central question and sub-questions for this study are as follows:

Central Question

What are the factors that inform the decision-making process for special education practitioners for the implementation of evidence-based practices in the classroom?

Due to limited resources such as time, materials, and training, reform is not always implemented with fidelity in classrooms (Dorn, 2010). While there is a wealth of published literature on evidence-based practices. There is a research-to-practice gap regarding implementing evidence-based practices in the classroom (Spaulding, 2009).

Sub-questions

SQ1: How do educators working with special education students describe the knowledge necessary for teachers to implement evidence-based practices in the classroom?

The first question sought to identify the knowledge required for teachers to implement evidence-based practices in the classroom. To make decisions in the classroom, Ryan, Cooper, and Bolic (2016) stated that teachers need to know the subjects that they teach and the methods to explain the specific content. Specifically, teachers need to have theoretical knowledge about

human behavior and learning and knowledge of the subject they are teaching. Teachers in adaptive classrooms teach all the core subjects and functional skills (Schulman, 2016). What do they need to know to implement strategies in various topics successfully? Teachers in an inclusive setting need to adapt the curriculum for student access. Do they need a different base of knowledge? In addition, teachers need to find and identify evidence-based practices. A need exists to determine the perception of special education teachers regarding the knowledge required to implement evidence-based practices in the special education classrooms.

SQ2: How do educators working with special education students describe the skills necessary for teachers to implement evidence-based practices?

The second question examined the skills necessary to implement evidence-based practices in special education classrooms. Gage (1985) and Marzano (2007) called this the art of teaching. Because teachers have to implement and make spontaneous decisions to balance many interacting factors, teaching cannot be reduced to a science or a formula. Some of the skills teachers need to develop include effective questioning, keeping student focus, planning instruction, using technology, diagnosing learning difficulties, providing feedback, varying instruction to promote student learning, assessing learning, differentiating and using students' cultures and backgrounds to make learning relevant to the individual (Ryan et al., 2016). A need exists to identify special education teachers' perceptions of the special skills required to implement evidence-based practices in the special education classroom.

SQ3: How do educators working with special education students describe the resources necessary for teachers to implement evidence-based practices in the classroom?

The third question sought to illuminate the needed resources to implement evidence-based practices. Techniques that require resources, including time or expertise that teachers do

not have, are not valuable to the teacher, despite the amount of evidence regarding its effectiveness (Bartels, 2003). Some of the factors that may impact a teacher's ability to implement evidence-based practices in the classroom include the need for training or coaching, administrative support, time, classroom environment, relevancy, fit to the target, and others (Purper, 2016). According to Cook, Smith, and Tankersley (2011), although teachers are looking for effective evidence-based practices, they do not always have the appropriate resources. The authors recommended that the field allocate the appropriate resources to investigate the approaches that will reliably implement evidence-based practices in the classroom. Therefore, it is essential to examine educators' perceptions of what resources are needed to reliably implement evidence-based practices in special education classrooms.

Definitions

1. *Access* – Instruction consisting of academic progress with standards-based instruction and high expectations (Timberlake, 2016).
2. *Adaptive Learning Environments* – Environments which offer personalized instruction to individuals using various strategies such as task difficulty, type of feedback, generalization, the pace of learning, and reinforcement of skills (Greenway et al., 2013).
3. *Decision making* – The selection of the best option (Schulman, 2016).
4. *Disability* – Impairments that are physical or mental, which limit a person's ability to participate in typical daily activities (Altiraifi, 2019).
5. *Discretion* – The extent of freedom he or she can exercise in a specific context (Evans, 2010).
6. *Discrimination* – The unjust or prejudicial treatment of different categories of people or things (Altiraifi, 2019).

7. *Evidence-based practices* – The most effective and efficient practices and interventions for ensuring optimal student achievement through research (Spaulding, 2009).
8. *General Education* – General education is the program of education that a typically developing student will receive based on state assessments (Schulman, 2016).
9. *Implementation* – The process of putting a decision or plan into effect; execution (Cavendish et al., 2020).
10. *Inclusive* – The process of including both general education and special education students in a classroom with the support of both special education and content area teachers (Greenway et al., 2013).
11. *Individuals with Disabilities Education Act* – The Individuals with Disabilities Education Act (IDEA) is a law that requires access to a free appropriate public education to all eligible children with disabilities throughout the nation and guarantees special education and related services to those children (Hale et al., 2004).
12. *Individuals with Disabilities Improvement Act* – IDEIA is a reauthorization of IDEA provisions in 1990 but with some critical changes. The changes were significant enough that the legislation was given a new name. The legislation sought to reduce paperwork, involve all stakeholders, and provide more accountability (New York State Education Department, 2015).
13. *Mainstreaming* – The process of including both general education and special education students in a classroom (Ozlem & Savage, 2012).
14. *Ontological* – This is a philosophical assumption about the nature of reality (Creswell, 2013).

15. *Post-Secondary Education* – Refers to higher education experiences upon high school graduation (Altiraifi, 2019).
16. *Pragmatism* – Seeks a way through the polarized quantitative-qualitative debate to find practical solutions to the problem of differing ideologies and methodologies (Grbich, 2013).
17. *Response to Intervention (RTI)* – RTI is a multi-tier system for identifying students who are struggling. The first tier includes screening, high-quality classroom instruction, and group interventions. The second tier involves targeted interventions, and the third tier focuses on comprehensive evaluations and intensive interventions (Fuchs, Fuchs, & Vaughn, 2014).
18. *Self-Efficacy* – Self-efficacy is the belief that one is sufficient (Timberlake, 2016).
19. *Street-Level Bureaucracy Theory* – Asserts that workers on the front lines of social or human service delivery shape policy outcomes within a context of policy ambiguity as they organize their work (Lipsky, 2010).

Summary

Although research has been conducted to determine effective teaching practices, those evidence-based practices are not being implemented in the classrooms at the same rate as the research (Greenway et al., 2013). There is a need to investigate what factors impact the decision-making process of special education teachers as they implement evidence-based practices in the classroom to resolve this problem. Therefore, this qualitative instrumental case study sought to understand the perspectives of 11 practitioners of Central Combined School regarding the factors that impact special education teachers' decision-making process regarding the implementation of evidence-based practices in the classroom. Using street-level bureaucracy

theory, this research strove to identify factors that affect the implementation of evidence-based practices for students in special education and reveal the factors which influence those decisions.

CHAPTER TWO: LITERATURE REVIEW

Overview

Few studies have been conducted on practitioners' perceptions regarding the factors that impact the implementation of evidence-based practices in special education classrooms, and yet there is increased accountability for using evidence-based practices to improve student outcomes. As requirements increase, so do the demands that evidence-based practices be implemented in special education classrooms. Nevertheless, little empirical evidence exists regarding special education teachers' perceptions of the factors that influence this process. There is a need to facilitate the implementation of evidence-based practices to improve student outcomes for this population, and therefore, understanding the practitioner's perspectives is valuable.

The purpose of this literature review is to provide an overview of the current literature regarding decision making and implementation regarding evidence-based practices for students in special education classrooms. This study's theoretical framework is grounded in street-level bureaucracy theory, as developed by Michael Lipsky (1969). The street-level bureaucracy theory states that when policies are implemented and open to interpretation, social or human services workers who implement them determine outcomes as they use their discretion to apply the policies (Lipsky, 2010). It describes the process people use to make decisions on the spot (Timberlake, 2016). Street-level bureaucracy theory applies to this research since the practitioners in the classroom must decide how to implement policy while working through discretion, accountability, and limited resource issues.

Theoretical Framework

Having a theoretical framework provides direction to a study and supports the analysis and application of results (Yin, 2014). This study was based on the educational and sociological

theory of street-level bureaucracy. This research examined the street-level bureaucracy theory and its application to the literature in the review.

Street Level Bureaucrat Theory

Michael Lipsky first described the idea of street-level bureaucracy in 1969, although the process of making street-level decisions has existed for a much longer time. In his 1969 paper, Lipsky sought to describe the discretion, accountability, and limited resources that affect government resource distribution. Lipsky (2010) argued that the way policy is executed ultimately relies on the people who implement it, describing the problematic place where the government meets people. In the United States, some of the first street-level bureaucrats were post office officials and administrators. During Woodrow Wilson's administration, the government grew exponentially and created tremendous growth in public administration and government policies. This growth led to more extensive and better-funded bureaucracies. Current levels of street-level bureaucracy did not take full root until the 1950s with the exponential government growth, and it continues today (Brodkin, 2012).

Over the last 50 years, the sociological theory of street-level bureaucracy has described and deepened the understanding of the beliefs and practices of frontline workers in the public service and the implication of those beliefs and practices on the way they use their discretion to implement policy on a day-to-day basis (Cooper, Sornalingam, & O'Donnell, 2015). Street-level bureaucrats are people employed by the government who share several characteristics. First, they are the connection between the government and the citizen. Second, they have significant discretion and independence in job decision-making. Finally, they potentially have a tremendous impact on the lives of those they serve (Lipsky, 1969). Street-level bureaucrats may include teachers, police officers, caseworkers, and others who network with the public and decide the

distribution of resources (Lipsky, 2010). In street-level bureaucracy theory, the term bureaucracy is not cynical but simply describes organizations that are hindered with numerous rules and order and serve the public as a distributor of federal resources (Brodkin, 2003; Lipsky, 2010). Street-level bureaucracy theory is interested in making more understandable the problems in these structures where service is distributed to the public.

Public schools demonstrate the characteristics of bureaucracy through the rules and procedures that guide decisions, create predictability, and maintain stability in work outcomes (Scott & Davis, 2007). Educational research demonstrates results consistent with the research on street-level bureaucrats in other occupations such as police officers and social workers (Timberlake, 2016). Special educators, in particular, function as street-level bureaucrats when they implement federal, state, and local educational policy, face daily demands for their time, hold professional certification, and serve students with an assortment of needs and strengths while possessing fewer resources than they need to do the job (Timberlake, 2014). However, teachers are mindful of the power and influence they have regarding decision making, and they are deeply influenced by held values and the profession's norms (Timberlake, 2016).

Street-level bureaucrats face both challenges and responsibilities when exercising discretion. Two of the most significant challenges include the applicability of the policies they are entrusted to implement to their students and the resources available to implement those policies. Often, the rules that the street-level bureaucrat has to follow do not match the student's special situations (Scott, 1997). Practitioners use their discretion to decide how those policies are implemented (Lipsky, 2010). However, practitioners often do not do what they want to do, but what they can do (Brodkin, 1997), which is often a result of limited resources (Lipsky, 2010). For the street-level bureaucrat, there must be enough other people in the same job to meet the

needs of the citizens with a relatively low degree of stress and consistent with the expectations of the public, including enough time to make informed professional decisions and to act on them (Brodkin, 2012). In the absence of these resources, street-level bureaucrats develop coping mechanisms to do their job within the limits of their discretion and their resources (Tummers & Bekkers, 2014).

Discretion is the extent of freedom a person has within a specific context (Evans, 2010). Discretion can increase the meaningfulness of a policy for clients (Palumbo et al., 1984). Therefore, client meaningfulness can be considered a potential effect of discretion (Tummers & Bekkers, 2014). In addition, providing street-level bureaucrats discretion increases their willingness to implement the policy (Meyers & Vorsanger, 2003; Sandfort, 2000). According to self-determination theory (Deci & Ryan, 2004), motivation is based on three psychological needs: competence, relatedness, and autonomy. Autonomy as discretion is a vital part of the motivation to act for the street-level bureaucrat. The level of freedom street-level bureaucrats experience has different levels based on several factors. One, they may have more knowledge about the loopholes in the rules. Two, their organization may implement the policy somewhat differently. Three, they may have a better relationship with their supervisor, which allows them to alter the policy to the situation. Finally, their personality influences the discretion depending on if they are more of a rule follower or more rebellious (Brehm & Hamilton, 1996; Prottas, 1979; Tummers & Bekkers, 2014).

Although the resources of time, materials, and training are limited for street-level bureaucrats (Lipsky, 2010), their own perception of themselves as a professional as well as their shared ideas and commitment limit the temptation to use their discretion to make the easy choice even when under pressure (Evans, 2010). Professionalism is an ideology that focuses on the

students' needs over economic priorities and the idea of control over their work (Evans, 2010). Tummers and Bekkers (2014) referred to the consideration of students' needs as client meaningfulness. They attributed it as a significant reason for the use of discretion by the street-level bureaucrats and an essential factor in their willingness to implement policy (Hill & Hupe, 2009; Lipsky, 2010).

There are two views of how policies are enacted: from the top-down and from the bottom-up (Tummers & Bekkers, 2014). The view of discretion varies based on the approach to policy. In the top-down perspective, discretion is not desirable (Davis, 1969; Polsky, 1993; Tummers & Bekkers, 2014). Discretion is mainly viewed as a method that the street-level bureaucrats use to pursue their goals and undermine the policy's fidelity. Control methods are often developed to ensure compliance and equitable policy enforcement (Tummers & Bekkers, 2014). In the bottom-up perspective, discretion is viewed as inevitable. It must be employed to adapt the policy to specific situations, inevitably improving the policies' effectiveness and implementation. In addition, due to the limited resources of time, money, and other resources as well as a large number of policies, street-level bureaucrats are tasked with prioritizing implementation (Brodkin, 1997; Maynard-Moody & Musheno, 2012; Maynard-Moody & Portillo, 2010; Tummers & Bekkers, 2014). Therefore, from a bottom-up perspective, discretion might increase the client's meaningfulness (Barrick et al., 2012; Brodkin, 1997; May, Gilson, & Harter, 2004; Maynard-Moody & Musheno, 2003; Tummers, 2011; Tummers & Bekkers, 2014).

Street-level bureaucracy theory and educational research over the last half-century have resulted in some interesting findings and results. As this theory has been tested and documented, researchers have provided empirical confirmation that the coping strategies that Lipsky (1969) predicted are plentiful and prevalent in education. These studies document various strategies that

street-level practitioners use to manage their workload within the available resources. In fact, resource limitations are often the deciding factor in developing informal practices (Brodkin, 2012). Essential to discretion's professional use is practitioner reflection (Brodkin, 2012) and open discussions about the normative judgment workers have over policy. Lipsky (1969) found that street-level bureaucrats are likely to choose among conflicting expectations instead of meeting all of them. Therefore, organizational work cultures that enable conversation about discretion among workers and between workers and their supervisors promote decisions that are both practical and fair (Maynard-Moody & Musheno, 2012).

The policy is enacted in the classroom during a teacher's daily work, and that is where access to evidence-based practices must happen. Understanding how discretion, accountability, and limited resources impact special educators as they act in the role of street-level bureaucrats in the natural environment may provide new insights into teacher perception of the decision-making process for implementing evidence-based practices. There is a need to examine what makes implementation successful (Dorn, 2010). In addition, special education teachers are mindful of the power and influence they have regarding decision-making. They are deeply influenced by held values and the profession's norms (Greenway et al., 2013; Timberlake, 2016).

Applying street-level analysis could help determine what work conditions can be developed to help street-level bureaucrats formulate effective strategies. Understanding these conditions is focused on the enabling approach with an emphasis on creating conditions that produce responsive and quality policy delivery (Brodkin, 2012). Using this knowledge may inspire some practitioners to participate in the "moral underground" that Lipsky (1969) mentioned or even take action "above ground," using their professional understanding and

contacts to effect changes that will allow them to do a better job (Brodkin, 2012). Lipsky's analysis can open up our understanding of the way discretion operates (Evans & Harris, 2004)

To make decisions when confronted with a complex problem in a changing environment, street-level bureaucrats will develop strategies to make the task easier (Lipsky, 1969). These simplifications and routines allow teachers to make quick decisions and accomplish the expectations of their jobs easier while possibly freeing up limited resources such as time, reducing anxiety regarding the decision, and limiting tensions with students and parents (Lipsky, 1969). Through this study, a better understanding of the factors influencing the decision-making process for using evidence-based practices was developed, and insights into effective coping strategies were gained.

Studies in this field also indicate that performance measurement creates the desire to focus on the measured work areas. With the limits of time and resources, it is vital that critical aspects are included in the measures or they may be displaced by measured elements (Brodkin, 2012). This study sought to gain an understanding of the perception of those factors on special education teachers. This study expanded the understanding of practitioners' perspectives in implementing evidence-based practices in special education classrooms. It benefited researchers by illuminating teachers' perceptions, and it helped the administration by revealing areas of support to remove barriers to implementation.

Related Literature

According to Yin (2014), the purpose of a literature review is to help define and sharpen the questions being asked in the study. Over the last few years, significant changes have been made in accountability in the classroom, including implementing evidence-based practices (Spooner & Browder, 2015). Although research is available on decision-making processes,

evidence-based practices, quality controls, and the implementation process separately, little research has been gathered on the factors that influence teachers' implementation of evidence-based practices in the various special education classrooms.

Definition of Special Education

Special Education is defined by IDEIA (2004) as "individualized instruction." In the context of standard-based instruction, this can present a challenge for special education teachers when implementing evidence-based practices and standardized instruction (Greenway et al., 2013; Timberlake, 2016). One of the difficulties of evidence-based practices concerning special education is that it has already been identified that an individual student has not responded to the evidence-based practices used in the classroom or small groups (Fuchs et al., 2014). Also, while there are numerous published studies and evidence-based practices ready for implementation (Spaulding, 2009), the nature of special education and the individual nature of instruction makes it difficult to find evidence-based practices that have met quality indicators for the specific population and environment of a particular student (Boardman et al., 2005; Odom, 2009).

Key Factors of Special Education

Special education teachers enjoy professional discretion and the responsibility of decision-making (Greenway et al., 2013). Decisions are influenced by the students' needs, their IEP goals, state standards, the nature of instructional tasks, the context of instruction, and teacher characteristics (Schulman, 2016). Teachers report using student needs, personal judgment, desired skills, and effectiveness of the past process to make informed instructional decisions (Knight et al., 2019). Evidence-based practices have proven effective (Cook & Cook, 2013), and it is logical to implement them during the decision-making process. However, there are barriers to implementing evidence-based practice with fidelity, and evidence-based practices have not

significantly impacted the practice of education in the classroom. Greenway et al. (2013) found that teachers' understanding of evidence-based practices and their decision-making process is "complex" and "multi-faceted." Teachers considered "organizational constraints," the value of the research, and resources when making decisions about implementing evidence-based practices (Greenway et al., 2013, p. 456).

Types of special education classrooms. There is a significant amount of research resulting in evidence-based practices used in the classroom (Spaulding, 2009). However, the impact of special education teachers' decision-making process for the implementation of evidence-based practices in the classroom has not been studied. Schulman (2016) found that special education teachers' role varies significantly, even within the same school or the same district. This variety in roles demonstrates critical differences in teachers' decisions regarding curriculum and its implementation (Schulman, 2016).

In examining how special education teachers' varying roles affect their decisions, it is crucial to look at the different environments where special education takes place. Special education teachers may work in either an inclusive or an adaptive classroom. In the inclusive classroom, general education teachers have considerable influence on the use of evidence-based practices (Siuty, Leko, & Knackstedt, 2018). Also, special education teachers who work in inclusive classrooms often experience more collaboration with other professionals. However, teachers who work in the adaptive classroom often experience limited collaboration. They provide direction for paraprofessionals and make decisions for students who have a wide variety of diagnoses. In these classrooms, the curriculum is adapted for individual needs. The amount of discretion, accountability, and limited resources is distinctly different in these two special education locations.

General education. Teachers make many decisions a day, and these decisions have a profound effect on their students. Several factors impact teacher decision making for general curriculum students, including characteristics of the student, the instructional task, where the education takes place, and the teacher's characteristics (Siuty et al., 2018). For example, teachers consider how difficult the material will be, how much time they have, advancement requirements, student motivations, ability, and interest. Teacher decisions are complex and impacted by many factors (Siuty et al., 2018). Increasingly, special education students are the co-responsibility of general and special education teachers. Therefore, practices that are effective with both general and special education students are important (Boardman et al., 2005; McKenna, 1992) and have demonstrated even more significant effect when used with general education students (Boardman et al., 2005; Vaughn, Gersten, & Chard, 2000).

Special education. Little research has been conducted on the process of making decisions regarding the use of evidence-based practices within special education; the perspective of these practitioners is valuable as it encompasses a micro version of the current national discussion (Timberlake, 2016). Special education includes individualized instruction either in the general education or adaptive classroom. This process includes developing an Individualized Education Program (IEP), implementing it during instruction, and monitoring students' progress.

Inclusion. IDEA (2004) guarantees, but does not define, access to the general education curriculum for all students with disabilities based on the least restrictive environment. The lack of a clear definition makes application challenging and allows for various interpretations. For the purpose of this research, inclusion is defined as the process of including both general education and special education students in a classroom (Greenway et al., 2013). Most educators would agree that access to the general education classroom with support is the least restrictive

environment for students who can access the curriculum in that context. Since special education teachers in the general education classroom are still accountable for standardized testing, they are often making curriculum decisions regarding modifying the instruction provided in the classroom. Schulman (2016) found that general education teachers have significant input in the curriculum's decision-making process for the special education students in their classroom, which removes some of the discretion from the special education teacher. Olson (2014) and Kleinert et al. (2015) have demonstrated that students with cognitive disabilities have increased access to evidence-based practices in general curriculum classes. Kurth, Born, and Love (2016) found that based on interactions with the teacher and time spent on task, students often experience a more rigorous environment in the general education classroom.

Adapted. When it is determined that the students' needs cannot be met in the general education classroom, students can access the least restrictive environment in the self-contained classroom. In most cases, these are students with Significant Cognitive Disabilities (SCD). Although these students have experienced a history of segregation, limited academic instruction, and low expectations, the expectations are changing for a more robust, challenging curriculum (Timberlake, 2016). Teachers' perceptions in the self-contained classroom often vary from their counterparts in the general education classroom and therefore require separate analysis (Schulman, 2016). Because scholars have not reached a consensus regarding how best to use academic content standards for students with SCD, it is understandable that IEP teams also find it challenging (Courtade et al., 2012; Hunt, McDonnell, & Crockett, 2012). Often, these decisions are then primarily left to the special education teacher. Teachers in the adaptive classroom meet the needs of students with the most significant disabilities. These students meet the requirements of adapted assessments and report less collaboration than inclusive special

education teachers (Schulman, 2016). They also reported more autonomy and less accountability than teachers in other roles (Greenway et al., 2013), which results in these teachers making the final curriculum-based decisions for their students (Schulman, 2016).

Ruppar, Gaffney, and Dymond (2015) completed a study regarding literacy instruction for students with a severe disability. They found four factors that influenced literacy decisions for these students with SCD, including the context of instruction, teacher beliefs about students, teaching and learning, teacher self-efficacy, and teacher expectations. Siuty et al. (2018) conducted a qualitative investigation of curriculum on middle school teacher decisions regarding reading interventions. They analyzed teacher decision making while using a "prescribed, research-based reading intervention curriculum" (Siuty et al., 2018, p. 39). They found that using such a curriculum helped teachers make decisions about individualizing instruction and growing teacher self-efficacy. Knight et al. (2019) studied instructional decisions regarding students with autistic and intellectually disabled students. The research took place in 21 different settings. The setting had an effect on the practices used. The effect sizes were in the medium and large range for video modeling and two of the evidence-based practices that were used. Also, according to Knight et al. (2019), teachers reported individual student need as a factor (84.9%), professional judgment (63.4%), curriculum choices (52.9%), and the effectiveness of practices in the past (48.6%; p. 11). More research needs to be gathered on the factors which influence teacher decision making and the most effective elements for making decisions. It is clear that teachers in different environments face different factors that may influence their perception of evidence-based practices in the classroom. The differences in accountability, discretion, and resources will affect their decisions and need to be considered. However, the process of decision making has several unifying factors that will be examined in the literature.

Decision making. A key component of decision making for teachers is a level of professional discretion, especially in special education, with its emphasis on individual instruction (Timberlake, 2016). It would be challenging for the administration to dictate special education teachers' decisions in classrooms due to the individual nature of student education (Schulman, 2016). Therefore, teachers have numerous choices or decisions within set parameters. According to research, teachers weigh the options and act from professional judgment (Timberlake, 2016). Teachers in a special education classroom need to consider many factors, including the students' needs, their IEP goals, state standards, and then create a system for all students in the classroom to make measurable progress (Schulman, 2016). A compelling finding from the study by Boardman et al. (2005) found that the students' needs and the observed effectiveness of the intervention have more impact on teacher decisions than pressure to use specific methods or scientific evidence of its effectiveness. Also, Mostert (2000) demonstrated that teachers need discriminative ability—"the ability to know and understand what works effectively, what does not work effectively, and the ability to tell the difference" (p. 119). Evidence-based practices should guide these academic decisions. In conjunction with valid assessments, special educators need to spend time with their students to learn their individual needs and develop accrued teacher experience to design curriculum effectively. However, there is also a wealth of research-based practices available for teachers to implement right now (Spaulding, 2009).

Three key factors stand out when examining the literature regarding teacher decision making. First, special education teachers base many of their decisions on their confidence in their ability to make decisions or self-efficacy (Greenway et al., 2013). A significant factor that supports their feelings of professionalism comes from the fact that they are given autonomy to

make those decisions (Timberlake, 2016). A second noteworthy factor is student need. These findings are consistent with teachers' view as street-level bureaucrats; they use their discretion with client meaningfulness in mind and are more motivated to implement policy when it produces positive results for the student. It takes time for teachers to get to know their students and their needs, but it is a crucial factor in their ability to make decisions for the curriculum. Finally, standards and standardized curriculum are essential factors. Evidence shows that a standardized curriculum can allow teachers the freedom to individualize instruction even in the midst of a greater emphasis on state standards (Siuty et al., 2018).

Self-efficacy. Self-efficacy is one of the significant factors in the teacher decision-making process. Timberlake (2016) conducted qualitative telephone interviews with special education teachers about their academic decision making when teaching a student with significant cognitive disabilities. The findings were consistent with Greenway et al. (2013). Both studies found that teachers of students with SCD reported a considerable amount of autonomy in their classrooms, which reinforced their self-efficacy. Timberlake (2016) took this information a step further by finding that teachers believed they were making the right decisions because they were given the authority to make their own decisions.

Needs of the student. Although self-efficacy helps teachers see a clear path to making decisions, considering the individual student's needs is the primary concern of teachers (Schulman, 2016; Timberlake, 2016). Teachers must have time to plan the curriculum to meet student needs and develop a curriculum map to ensure that all the topics are covered (Oliver, 2016). In addition, evidence shows that when teachers base decisions on positive student outcomes, lower-achieving students can narrow the achievement gap (Deno, 1985, 2003; Fuchs, 2004). Traditionally, much of the assessment considered on special education has been based on

history, cash value, tradition, bandwagon, and testimonial evidence (Ysseldyke, Algozzine, & Thurlow, 2000).

Fuchs et al. (2014) discussed how data should drive decision making to produce the most growth for special education students. The special education teacher becomes typically involved in using data to promote growth with the Response to Intervention (RTI) process, as it is often used as a method of disability identification. RTI is organized into three levels of increasingly intensive instruction. The first tier (Tier 1) is the general instruction all students receive in the general education classroom. The classroom's core instructional program allows for the routines and opportunities for differentiation and accommodations to address problem-solving strategies for access, motivation, and behavior.

Tier 1 programs are typically designed using evidence-based practices. However, they are not generally validated by research. Fuchs et al. (2014) used the term validated by research to mean experimental or quasi-experimental studies have shown that intervention programs are effective for the target populations. Tier 2 programs, on the other hand, typically do rely on these validated practices and assessment data from students to guide instruction. Tier 3 students are considered for adaptive and small group special instruction. Three elements should be considered when assessment data do not indicate that students are making sufficient progress. First, is the size of the group a sufficient quantity? Teachers know and researchers confirm that small groups and one-on-one instruction produce better student outcomes (Wanzek & Vaughn, 2007, 2008). Another consideration is the knowledge of the person providing instruction and the needs of the student. A teacher with considerable expertise and experience may be able to meet the requirements in a small group; in contrast, a novice teacher may need to work one-on-one with the student. A final consideration is the intervention’s duration. Strategies for increasing

the length of intervention are to increase the time; data from progress monitoring should drive the number of sessions (or the number of weeks) and these decisions. When these steps do not produce the desired student outcomes, another intervention method should be included (Fuchs et al., 2014).

Standardized requirements/curriculum. The final significant and consistent factor in curriculum decision making is the requirements and curriculum available. Curriculum and standards are dictated for special education teachers in inclusion classrooms, and general education teachers have significant input in decision-making (Schulman, 2016). Considerable advances have been made in educating students with severe cognitive disabilities in adaptive classrooms over the last few years (Spooner & Browder, 2015). The increased requirements have left inclusion teachers with the need to balance academic content, functional life skills, applied behavior techniques (Spooner & Browder, 2015), and alternative assessment (Modenbach, 2015). According to Spooner and Browder (2015), new goals should be set for the future, including promoting standards-based instruction, a focus on literacy, and improved emphasis on students with the most significant disabilities.

One way to facilitate teacher curriculum decision making is to follow a curriculum model. Morse (2001) developed a curriculum model for students in an urban setting, while Suleymanov (2015) reviewed the Curriculum Relational Model. Another way to facilitated teacher curriculum decision-making is to follow a prescribed, research-based curriculum (Siuty et al., 2018). Siuty et al. (2018) found that the prescribed evidence-based curriculum allowed teachers more time to individualize instruction and increased teacher self-efficacy because they did not have to individualize instruction themselves.

Data-based decision making. Data-based decision making focuses on how practitioners make instructional decisions based on student data, "representing an individual's overall achievement in a particular academic area across a period of time" (Stecker, 2017, p. 71). Deno and Mirkin developed the foundation for this process in 1977. They developed a model for using simple, efficient assessment tools to graph student academic growth over time, which became known as curriculum-based measurement (CBM). CBM has been used in general and special education classrooms to make instructional decisions, including the effectiveness and appropriateness of an intervention (Fuchs & Vaughn, 2012). Teacher instructional planning (Wagner, Hammerschmidt-Snidarich, Espin, Seifert, & McMaster, 2017) and RTI problem-solving (Fuchs & Vaughn, 2012; Hosp & Hosp, 2003) are two situations that are enhanced by using CBM for data-based decision making.

Although this seems like a simple process, Fuchs (2017) discussed the difference between collecting the data using a simple tool and the complex process of using academic proficiency indicators to make instructional decisions. According to Swain and Hagaman (2020), even after 20 years of research, there is some evidence that teachers have trouble implementing CBM effectively or consistently. Rotter (2014) found that more than half of special education teachers in her study used grades rather than CBM to determine if IEP goals had been met. Teachers may think they understand progress monitoring but may not adequately understand it to implement it with fidelity (Hellrung & Hartig, 2013; Stecker, 2017). Specifically, in recent studies, teachers and pre-service teachers struggled to interpret CBM data from a graph (Espin et al., 2017; Wagner et al., 2017). Compared with CBM expert descriptions, teacher and preservice teacher descriptions typically were not as complete. They included fewer specifics about student progress and could not develop explanatory, logical, and integrated

descriptions of their reasoning for decision-making (Stecker, 2017). In Germany, differences between teachers and student teachers were examined using a newly developed graph literacy test regarding student progress information (Zeuch, Forster, & Souvignier, 2017). Even when teachers stated that they had experience using and interpreting CBM data, this did not lead to better interpretation (Espin et al., 2017). In addition, when pre-service teachers were asked to use think-aloud to evaluate graph data, their descriptions of the data were incomplete based on expert interpretations. They did not show significant growth in their ability to interpret the graphs over time (Wagner et al., 2017). Together, these studies may indicate that both teachers and pre-service teachers cannot explain the data sufficiently to use them for data-driven decision-making. Van den Bosch et al. (2017) included both teachers and different types of experts in their study. They found that teachers could describe the graphs as effectively as the general graph reading experts. Still, they were not able to link instructional decision making to the data descriptions or analyze the implications of the data.

CBM experts appear to have more knowledge and a more in-depth understanding of student graphs than teachers and other graph-reading experts. CBM expert decision making seems to rely on being able to decipher specific information about data, observing relations between data, making inferences and predictions based on data patterns, and integrating information for making judgments for particular contexts. Continued work on measures that illuminate differences between teachers' and experts' data-based decision making may yield a threshold necessary for improved teacher decision making. Research questions could also explore whether graphed data features could be manipulated to make graphs more easily interpreted by teachers (Espin et al., 2017; Stecker, 2017; Swain & Hagaman, 2020; Wagner et al., 2017).

However, research continues to document the effectiveness of data-driven decision making for improving student outcomes. Data-driven decision making allows teachers to base instruction on their students' needs, provide necessary support in a timely manner, and improve student outcomes. Even intermittent progress monitoring every three weeks can provide the data needed for effective decision making (Jenkins, Schulze, Marti, & Harbaugh, 2017), especially with students with significant cognitive disabilities where progress is slower than their typically developing peers. In fact, this idea of saving time may be considerable due to the already rigorous testing requirements. Teachers report time constraints as one reason they do not use data-driven decision making in the classroom. However, its use has increased over the last 20 years for important decisions such as eligibility for special education services and progress monitoring during pre-referral (Swain & Hagaman, 2020). Swain and Hagaman (2020) also found that district policies regarding data collection and reporting increased the use of data-based decision making by providing professional development on progress monitoring methods and providing the materials needed to implement CBM. In addition, the teacher's completion of graduate work may determine the teacher's use of CBM (Swain & Hagaman, 2020). Despite the development of computer-based programs for collecting and interpreting data, special education teachers continue to report time constraints as a significant roadblock to data-based decision making and specifically the use of CBM. One reason for this continued perception is the growth of educational responsibilities and workload expectations, which have continued to grow over the last 20 years (Swain & Hagaman, 2020). This finding is consistent with research, which indicates that novice special education teachers often report unmanageable workloads (Bettini et al., 2017). As expected, the idea of managing data collection and analysis in addition to already

demanding responsibilities is daunting and may be one of the factors that influence the implementation of evidence-based practices in the classroom based on practitioner perception.

Evidence-based practices. Historically, teachers have used norms, personal experiences, and trusted opinions to discern what works in the classroom. According to Cain et al. (2019), significant effort has been made to align educational research with the classroom practices. However, the research-to-practice gap continues to hinder the implementation of that research in the classroom (Boardman et al., 2005; Greenway et al., 2013). Teachers occasionally use a strategy without realizing it is an evidence-based practice (Cain et al., 2019; Greenway et al., 2013).

Definition. Evidence-based practices are instructional techniques with significant research supporting their effectiveness and provide a bridge reducing the research-to-practice gap to improving student outcomes (Cook et al., 2011; Slavin, 2002). They are practices and interventions for producing the best student achievement (Spaulding, 2009). Evidence-based practices are the most recent attempts by educators to determine what works compared to other methods that have traditionally been determined by the norms, personal experiences, and trusted opinions (Cook & Cook, 2013). The focus has recently moved to more rigorous requirements for qualifying as an evidence-based practice, producing trustworthy and rigorous standards to support these practices (Cook & Cook, 2013). The idea of evidence-based practices began in medicine in the 1990s (Cook & Cook, 2013; Sackett et al., 1996). Soon the concept spread to other fields, including psychology, nursing, agriculture, and education (Slavin, 2002). Because evidence-based practices are the practices determined to be most effective according to the research, they have the potential to cause positive and meaningful change, especially for the students most at risk (Slavin, 2002). During this age of accountability, the ability to determine

and practice these interventions is a fundamental concern, especially for students with special needs who need the most effective instruction to reach their potentials (Vaughn & Dammann, 2001). Today's significant issue is not that students with disabilities are allowed access to public education, but students with disabilities are permitted access to effective instruction (Spaulding, 2009).

Supports. Cain et al. (2019) have developed a framework that explains how bounded decision-making, organized learning, and teacher reflection can work together to close the research-to-practice gap. Boardman et al. (2005) examined the teacher's perceptions of evidence-based practices. They developed four themes that emerged from the discussion of evidence-based practices with special education teachers, including program selection, program use, program sustainability, and professional development and research. Programs were selected based on if they worked for their students. Teachers experienced many barriers to using the programs based on evidence-based practices, and even when the programs were implemented, they needed to meet specific criteria. For the practice to be sustainable, it must work for their students, be engaging and motivating, practical, and easy to implement. In addition, teachers needed access to professional training with classroom demonstrations (Boardman et al., 2005).

Challenges and barriers. Another way to improve the potential for positive student outcomes is for the teacher to choose evidence-based practices, although there are challenges. Even though the practice is evidence-based, it is not guaranteed to work for everyone. In addition, they are challenging to implementation on a large scale. Evidence-based practices are not the only consideration in instructional decision-making, and there is some confusion as to what is and what is not an evidence-based practice (Cook et al., 2015). Although it is essential to use practices in the classroom known to work, using the evidence to improve teaching and

learning in the school is more challenging to accomplish in reality. Bonati (2018) examined why, if using evidence-informed practice is logical, they are not being used more in the classroom. According to Newton and Burgess (2016), evidence-based practices are not producing educational reform. Boardman et al. (2005) found that limitation of time, resources, and relevance to the students' need prevented special education teachers from adopting evidence-based practices. Additional challenges are overcoming preconceptions and norms and identifying evidence-based practices.

Preconceptions and norms. Special education teachers are mindful of their decision-making power regarding curriculum decisions, and they are influenced by deeply held values and the profession's norms. In some cases, teachers see the implementation of evidence-based practices as conflicting with the profession's norms. Those norms include a commitment to specialized instructions, functional activities, students' protection and care, creativity, expertise, and credibility gained from experience (Timberlake, 2016). May and Winter (2009) determined that street-level bureaucrats became frustrated if they perceived an instrument for implementing a policy ineffective for their clients. Tummers and Bekkers (2014) referred to this concept as client mindfulness. When they do not see how the instrument will help, they question why they should implement it. These norms provide a guide for how special education teachers react to academic policy within the context of their decision-making process. It determines whether they will resist, adapt, or accept the new policies (Timberlake, 2016). Although elementary teachers of students with SCD tend to describe teaching in terms of academic content, middle and elementary teachers define functional skills as best (Bobzien, 2014). This violation of professional norms can provide a barrier to implementing evidence-based practices. This is consistent with the findings from other professions in social services, which demonstrate that

workers are motivated by values, and temper idealism with reality, teaching the functional skills students will need (Timberlake, 2016).

Identification of evidence-based practices. Due to the increased focus on assessment and accountability in education, along with the potential for evidence-based practices to improve student outcomes (Cook & Cook, 2013), practitioners need successful methods to implement evidence-based practices in their classrooms. The breach between the published research and the practices implemented in the classroom is well documented (Greenway et al., 2013; Greenwood & Abbott, 2001; Gunter & Brady, 1984; Odom, 2009; Vaughn et al., 1998). Since practitioners are the individuals who will implement best practices established through empirical research, it is essential for practitioners to know how to evaluate evidence-based practices. What is more, confusion exists because one organization may consider a practice evidence-based while another organization does not, which may impede the implementation of these practices in the classroom (Cook et al., 2015).

Odom et al. (2005) reviewed the best practices and quality criteria for four types of research in special education, including (a) experimental group, (b) correlational, (c) single subject, and (d) qualitative designs, and discussed stages for research implementation. Stage 1 uses correlational methods and qualitative research to explore issues and solutions, including frontline contributors' perspectives. Stage 2 involves controlled experiments (single-subject or randomized controlled trial [RCT] designs, qualitative methodology, and quasi-experimental), including teacher-researcher collaboration and observational studies of classrooms. During Stage 3 research, the knowledge gained from these previous stages is used to design interventions and document their effectiveness by using RCT studies “implemented in classroom or naturalistic settings by the natural participants (e.g., teachers) in the settings” (Odom et al.,

2005, p. 145). Due to the challenges of research on special education interventions, Odom et al. (2005) suggested that single-subject designs could meet these requirements as well. The last step is key to the implementation of the evidence-based practices developed during this process. Research also needs to be completed regarding the factors that lead to implementing effective practices in school systems under naturally existing conditions (Odom et al., 2005). This research will add to the body of knowledge regarding the factors that facilitate or impede the adoption of evidence-based practices in local schools. This framework can guide researchers in developing evidence-based practices. However, practitioners also need empirical criteria and quality indicators to evaluate those practices developed through effective research.

Quality indicators. The Council of Exceptional Children (CEC) established evidence-based practice standards which include 28 quality indicators in the areas of "Context and Setting, Participants, Intervention Agents, Description of Practice, Implementation Fidelity, Internal Validity, Outcome Measures/Dependent Variables, and Data Analysis" (Cook et al., 2015, p. 221). Of the 28 indicators, 18 are used with both group comparison and single-subject studies. Six of the indicators are only for group comparison studies, and four are used only with single-subject studies. Gersten et al. (2004) examined experimental and group experimental design. They developed a list of 18 quality indicators for research studies and two criteria for determining evidence-based practices. The practice must have at least four quality studies (meeting 17 of 18 quality indicators) or two high-quality studies that support the practice, and the weighted effect size needs to significantly higher than zero. Horner et al. (2004) addressed a single-subject design. Horner et al. (2004) recommend that the practice meet five quality indicators in the research for single-subject design before it is considered an evidence-based practice. First, the study must describe the process with sufficient detail so that it can be

replicated. Second, the study must clearly define the context and outcomes of the practice. The practice must also be implemented with fidelity and "functionally related" to the change in outcomes. Finally, the practice must be included in five quality studies conducted by at least three researchers and include 20 participants. Correlational design is discussed by Thompson et al. (2004), who developed 18 quality indicators. Correlational designs do not provide experimental evidence for evidence-based practices but can provide evidence for causal inferences and complementary evidence. These indicators are measurement, quantifying effects, avoidance of common macro-analytical errors, and confidence intervals. Brantlinger et al. (2004) examined the qualitative design indication that quality controls for qualitative research are always connected to the research questions and the study's conceptual framework.

Odom et al. (2005) presented some essential quality indicators for research, especially in special education. The authors made an argument for multiple types of research to be used in special education research. Researchers often believe only RCT can provide any provable data for implementing evidence-based practices (Odom et al., 2005). However, Odom et al. (2005) made a convincing case to examine other types of research. First of all, research using students with disabilities is challenging because students have a variety of learning difficulties and are often grouped in the same room. Students can receive special education services in the home as an infant or toddler. They can continue coming to school until they leave public education during their 21st year. Special education services can take place in the general education classroom or an adaptive classroom. Special education also serves a wide variety of students with various diagnoses. Because of this diversity, special education research must address how the practice is effective (Odom et al., 2005). Practitioners cannot just apply interventions to any student; they need to know the situation that produced positive results. Again, this is because students in

special education are all unique. Researchers must also work in natural conditions and not in the lab setting.

A quality indicator aims to set standards of quality for research (Cook et al., 2015). They guide researchers in designing their studies. This allows the researchers to develop quality research that can be used to further their knowledge of their subject. It will also enable practitioners to evaluate the published studies and apply the information appropriately in their classrooms. Klinger and Boardman (2011) have argued that special education needs to embrace mixed-method research so that they can not only understand student outcomes but also understand the context in which the evidence-based practice is developed.

Another resource for special education teachers concerned about the evidence supporting a practice or program is the tool charts developed by the National Center on Intensive Interventions (National Center for Intensive Interventions, n.d.). To find appropriate Tier 2 instructional programs, practitioners can go to the website and navigate the "Instructional Tools Chart." Just because a Tier 2 program is on the Tools Chart, it does not mean that it is an evidence-based practice. Practitioners have to examine the "bubbles" on the chart to determine the quality of the evidence and its effect sizes (Fuchs et al., 2014).

All of these methods can yield evidence-based practices for special education. Educators can use this information in two ways. First of all, special education educators should look for best practices and quality indicators in various research forms, not just randomized experimental group designs. Second, researchers need to “determine the factors that lead to the adoption of effective practices in typical school systems under naturally existing conditions” (Odom et al., 2005, p. 146). Although the various criteria used by different organizations can be

overwhelming and confusing for special education teachers, a lack of understanding regarding evidence-based practices may also be a factor regarding implementing them in the classroom.

Implementation. Implementation of evidence-based practices with fidelity is a challenging prospect. It is often attempted with a train and hope method. Administrators train teachers and hope they implement the classroom practices (Stokes & Baer, 1977). Unfortunately, this is often ineffective (Joyce & Showers, 2002). There is a growing body of knowledge regarding implementing evidence-based practices, but the sustainability of those practices is often fleeting. However, research from other successful implementation processes, including school-wide positive behavioral supports (SWPBS) and overall policies may provide direction.

According to Kleinert et al. (2015), the principles of implementation science have been applied to special education classrooms most effectively to implement SWPBS. They posit that these principles could also be applied to providing students with cognitive disabilities more access to the general curriculum. McIntosh et al. (2013) discovered two factors that predict the sustainability of SWPBS and may be investigated for evidence-based practices. The first is at the school level. The factors include how well the teams worked together and the use of research in decision-making. The second is at the district level and consists of the ability to grow (i.e., expert coaches, professional growth, and teacher communities of practice; Kleinert et al., 2015). More research needs to be gathered regarding applying these characteristics to implementing evidence-based practices.

With the growing focus on accountability, evidence-based practices are among the policies that special education teachers must implement. Cavendish et al. (2020) found three themes regarding the perceptions of practitioners in implementing policy. First, teachers

considered that students' needs, including the support and services that would produce the best outcomes, are often in conflict with the top-down policies they are required to implement. Second, they felt that they needed more training to implement these policies geared to special education and that it impacted their classrooms and the distribution of supports and services. Finally, they cited the benefit of implementing support through collaboration and partnerships, including parents and community stakeholders. These findings from Cavendish et al. are consistent with other research on street-level bureaucrats and implementing policy. Discretion allows the practitioner to meet students' needs and provides more motivation when implementing policies from the top-down (Meyers & Vorsanger, 2003; Sandfort, 2000). In addition, due to the limited resources, time, money, and other resources and a large number of policies, street-level bureaucrats are tasked with prioritizing implementation (Brodkin, 1997; Maynard-Moody & Musheno, 2012; Maynard-Moody & Portillo, 2010; Tummers & Bekkers, 2014).

The body of knowledge developed in implementing evidence-based practices continues to grow. Special education teachers implement and sustain evidence-based practices that work for their students, provide engaging and motivating interactions, and are practical and easy to implement. Teachers also require professional development and training with classroom demonstrations to implement evidence-based practices (Boardman et al., 2005). Effective professional development for teachers of students with disabilities is developing regarding the needs which must be met for teachers to access and implement evidence-based practices (Boardman et al., 2005; Crockett, 2004; Klingner et al., 1999; Klingner et al., 2004). Some of the knowledge, skills, and resources for successful implementation must come from the teachers, but developing research indicates that for implementation to be sustained, the focus must include

all stakeholders and move from the practitioners to a systematic institutional process which centers on the policy as one of the core values (Fixsen et al., 2005).

One aspect of implementing evidence-based practices is identifying them. The other is to have a plan for implementing them. The National Center on Intensive Intervention (NCII: www.intensiveintervention.org) has been developed to help teachers reach special education students. They received a grant under IDEIA (2004) to provide technical assistance to school districts to support evidence-based intensive academic and behavioral interventions. Data-based intervention is an approach to intervention that uses progress and data analysis to adjust instruction using a validated intervention program and a continual process of assessment and adjustment. In other words, it is a method of implementing and individualizing evidence-based practices in the special education classroom based on student assessment. The first step in intensive intervention is implementing a "strong, validated, evidence-based secondary intervention program" (Danielson & Rosenquist, 2014, p. 9) with greater intensity (e.g., longer sessions, smaller group size) than initially implemented. The second step is progress monitoring, and the third step is diagnostic assessment. Progress monitoring data help the practitioner know if the student is making progress under current conditions; diagnostic assessments can determine the type of change needed (e.g., error analysis, work samples, or functional behavioral assessments). The fourth step is to adapt the intervention. Sometimes that means qualitative changes such as altering the amount of time or size of the group. Other times it may be the need to modify how content is delivered through additional evidence-based practices (e.g., focusing on a specific skill; more systematic, explicit instruction). Also, changing student responses (e.g., more practice with feedback; method of demonstration) or the environment may be needed. The fifth step is to evaluate and modify again. Throughout this process, evidence-based practices are

selected based on the data and provided with more intense instruction to meet student needs (Danielson & Rosenquist, 2014).

Swain and Hagaman (2020) found a need for professional development regarding efficient practices for implementing data-based decision making and continued support for the teacher. They focused on the evidence-based practice of curriculum-based measures (CBM). These are assessments developed from the curriculum to monitor student progress. They hypothesized that without professional development supports, it is unlikely that CBM and progress monitoring would see increased implementation. Substantial administrative support, mentoring, collaboration, coaching, ongoing professional development, and access to resources are vital to implementing new practices within schools (Cavendish et al., 2020; Chitiyo & May, 2018). In lieu of these supports, data-based decision making and progress monitoring will seem like a "top-down" policy in which teachers do not have the time, skills, or resources to implement effectively. Swain and Hagaman (2020) found that while more teachers report using CBM compared to the data from 1997, CBMs are mainly being used to monitor reading fluency growth, which indicates some success with implementation in a limited way.

Olson (2014) indicated that students with cognitive disabilities have more access to evidence-based practices in the general education classroom. More research should be evaluated to determine the best placement for students. Still, with the call to provide the least restrictive environment, Olson (2014) recommended that teachers consider the benefits and opportunities for students to access the general curriculum and evidence-based practices compared to the self-contained classroom. Second, school and district personnel should agree on shared responsibility for access and implementation of evidence-based practices from all stakeholders, including creating a school culture of collaboration. Finally, the school administration needs to be aware

of building capacity (i.e., professional development, educational coaches, and other expert stakeholders) and the school's growth potential (Olson, 2014).

Fixsen et al. (2005) provided six core implementation components for implementing evidence-based practices, which include staff selection, preservice and in-service training, ongoing consultation and coaching, evaluation, facilitative administrative support, and systems interventions. All of these components involve the environment of the institution. In general, Fixsen et al. supported switching from a process that relies on practitioners' understanding to an institutional practice that relies on implementation components as the core ideals.

Summary

The literature review in Chapter Two provides information concerning the theoretical framework related to this study, revealing that people working for the government are responsible for implementing policy and must work through discretion, accountability, and lack of resources to achieve policy equitably. Although special education teachers are mindful of the power and influence they have regarding decision-making, their tightly held values profoundly influence them and the profession's norms (Greenway et al., 2013; Timberlake, 2016). Besides, the process of decision making, quality controls regarding evidence-based practices and the process of implementation were discussed. Research is lacking concerning factors that impact the implementation of evidence-based practices in the special education classroom. The literature reveals that the science of implementation has been used most effectively for the implementation of SWPBS. The question then becomes which principles of implementation can be applied to evidence-based practices and their use in the classroom. Several processes for identifying and implementing evidence practices were discussed (Danielson & Rosenquist, 2014; Fixsen et al., 2005). The hypothesis developed that for sustainable and effective implementation

of evidence-based practices to be successful, there needs to be a shift from practitioner characteristics to core institutional values were considered (Fixsen et al., 2005). The literature emphasized the importance of future research concerning evidence-based practices for special education students. Therefore, this research sought to contribute to the field of knowledge and narrow the gap in the research and literature concerning practitioners' perception regarding the factors that impact the implementation of evidence-based practices in special education classrooms.

CHAPTER THREE: METHODS

Overview

In order to identify factors that impact the implementation of evidence-based practices by special education teachers, a qualitative instrumental case study was used. A case study was chosen as a means to understand the perspective of special education teachers regarding the phenomenon. This study was based on street-level bureaucracy. The present chapter includes the research design, research procedures, and data analysis for this study. Sections include the setting, participants, procedures, and role of the researcher. This section ends with a discussion of trustworthiness and ethical considerations.

Design

To identify the factors that impact the implementation of evidence-based practices by special education teachers, a qualitative descriptive, instrumental case study is most appropriate because it allows the researcher to take an in-depth look at a phenomenon in a real-life setting (Yin, 2018). A qualitative design enabled the researcher to examine a specific population of teachers, administrators, co-teachers, and paraprofessionals, regarding their experiences in implementing evidence-based practices for special education students. Qualitative research involves a set of interpretive, physical methods that help us see and change the world. These practices represent the world in "field notes, interviews, conversations, photographs, recordings, and memos" (Denzin & Lincoln, 2011, p. 3). Qualitative studies interpret phenomena in their natural setting and attempt to define meaning based on people's understanding (Denzin & Lincoln, 2011). This study benefited from this design because the best way to understand the factors that impact the implementation of evidence-based practices by special education practitioners involves gaining a better understanding of their perspectives through conversations,

interviews, and other documents in the natural classroom setting.

As a research method, the case study "has been around as long as recorded history" (Flyvbjerg, 2011, p. 302). Contemporary case study research began in the disciplines of psychology, sociology, history, and anthropology (Merriam, 1998; Stewart, 2014). In the 20th century, the case study was popularized by anthropologists and sociologists who studied the lives and experiences of people groups and their perceptions of their society and culture (Merriam, 2009; Stewart 2014). The studies from the Chicago University School of Sociology conducted between the 1920s–1950s are most often thought of as the modern-day beginning of case studies (Stewart, 2014). In the 1970s, education began using case studies to evaluate curriculum design and innovation, with Stake and Merriam the most significant contributors (Harrison et al., 2017).

Creswell and Poth (2018) stated that one reason to use a case study is to understand a specific issue or problem. The issue or problem for this case study was the factors that impact implementing evidence-based practices for students in special education. A case study is also appropriate when the research question focuses on a contemporary event, and the researcher does not need to control behavioral events (Yin, 2018). This study examined how educators working with special education students describe their experiences with evidence-based practices. It studied the phenomenon in the classroom's natural setting, and the researcher did not control behavior events. Also, case studies do not have clear boundaries between the phenomenon and the context (Yin, 2018). Therefore, to manage contextual variables, the parameters for a bounded system for this study included Central Combined School. Based on these definitions of phenomenon, setting, and bounded system, a case study was appropriate for this study.

A descriptive case study is appropriate because the research attempted to answer the “how” and “why” of the phenomenon (Yin, 2018). In addition, it sought to prove a thick, rich

description of factors that impact the implementation (Merriam, 2009). This study is descriptive because it attempted to answer how and why evidence-based practices are implemented using a thick, rich description. It is also instrumental because it aimed to understand a specific problem and heuristic in that it sought to reveal new ways to understand the issue (Merriam, 2009). The rationale for using a qualitative design was based upon seeking an understanding of the current, real-life issue of implementation of evidence-based practices for special education students.

Research Questions

The purpose of this qualitative instrumental case study was to identify factors that impact the decision-making process of special education teachers for the implementation of evidence-based practices in the classroom. The research questions guide the study (Creswell, 2013). The central question and sub-questions for this study were as follows:

Central Question

What are the factors that inform the decision-making process for special education practitioners for the implementation of evidence-based practices in the classroom?

Sub-questions

1. How do educators working with special education students describe the knowledge necessary for teachers to implement evidence-based practices in the classroom?
2. How do educators working with special education students describe the skills necessary for teachers to implement evidence-based practices?
3. How do educators working with special education students describe the resources necessary for teachers to implement evidence-based practices in the classroom?

Setting

The site selection at Central Combined School (pseudonym) was chosen for this

qualitative single instrumental case study for two reasons. First, to explore the factors that impact the implementation of evidence-based practices in the school's special education department. The district emphasizes the use of evidence-based methods in the classroom, and this study attempted to illuminate factors that facilitate this priority. The second reason was the accessibility of the school. Because I have connections at this school and know the quality of the special education program, I wanted to research the efforts to implement evidence-based practices in a quality program.

Central Combined School is located in rural central Virginia. It is a combined middle school and high school (Grades 6–12) with a leadership team that consists of a head principal, middle school principal, and high school principal. A total of 697 students attend Central Combined School. The teacher ratio is 13:1, and they have a full-time security officer. Forty percent of the school is eligible for free and reduced lunch, and they have an 87% graduation rate. The school is part of a county-wide district. Table 1 summarizes the ethnicity and gender of the student population.

Table 1

Demographics of the Student Population

Demographic Category	Percentage
Ethnicity	
White	65.0
Black	24.0
Biracial	9.0
Asian	1.0
Hispanic	1.0
Total	100.0

Gender	
Male	48.0
Female	52.0
Total	100.0

Participants

For this qualitative single instrumental case study, I examined a bounded system consisting of the school site, Central Combined School, including the bounded context, which are the educators who teach students in special education. The sample was a purposive sample because it involved choosing participants to provide insight into the central phenomenon being examined (Creswell, 2013). The criterion for selection contained both inclusion criteria and exclusion criteria. Inclusion criteria are the criteria for an individual to be included in the study. Exclusion criteria are factors that would make a person ineligible to participate in the study (Creswell, 2013). As criteria for this sample, teachers had to teach or co-teach special education classes. Paraprofessionals needed to work with special education students, and administrators had to supervise special education teachers. Seven teachers and four paraprofessionals work with special education students at Central Combined School. The three administrators, school principal, middle school principal, and high school principal, supervise the special education program. A total of 11 school personnel participated in the study. Sampling continued until saturation was reached within the case, as evidenced by a lack of new findings (Creswell, 2013; Stake, 1995).

Procedures

The proposed study was submitted to the school district and the Institutional Review Board (IRB) for approval. Once approval was received and the required paperwork for district

approval for the study was submitted, the researcher waited for permission. After permission to conduct research at Central Combined School, educators were asked in-person to participate in the study voluntarily. If they accepted, they were presented with and signed a consent form to acknowledge their willingness to participate (Creswell, 2013).

All teachers, administrators, and paraprofessionals who worked with students in special education at Central Combined School were asked to participate in the study. Once participants were identified for the study and participation paperwork was confirmed, hour-long interviews with each participant were conducted in person. They were scheduled and completed at the interviewee's convenience. Interviews were digitally recorded by audio and protected with password access. The researcher used a transcription service. Notes were taken during the interviews as needed to ensure accuracy of the transcription. When it was necessary to clarify information, it was done through email. Teachers, paraprofessionals, and administrative participants were asked 15 questions each. The online focus group used Google Hangouts and included five questions. The transcripts were download and stored. Data collection and analysis were conducted concurrently and include identifying and developing patterns, themes, and content analysis.

The Researcher's Role

According to Merriam (2009), the researcher is the human instrument in data collection. Due to the interpretive nature of qualitative research, the researcher minimized any bias by including all results in selecting the data (Yin, 2018). Currently, I am employed as a special education teacher in an adaptive classroom. I have taught for 20 years, and this is my third year in my current position. I have no leadership responsibilities over any of the participants, and I

attempted to report the results without biases (Yin, 2018). I undertook this study with the hopes that it would illuminated valuable resources for implementing evidence-based practices.

Data Collection

The nature of qualitative data collection includes four overriding principles. First, it is essential to use multiple sources of evidence verifying the same findings known as triangulation (Yin, 2018). This study used triangulation by collecting interviews, a focus group, and relevant document data, which added strength to the findings. Second, the researcher should create a database containing a record of all data collected. The data were compiled into a database on Microsoft Excel for this study. Third, the researcher needs to maintain a chain of evidence with the data collected. This study's data were maintained by organizing and the data were managed by assigning tags or labels to the data collected. This process is often referred to as coding (Saldaña, 2013). Finally, care was taken when using social media data, including limiting exposure, cross-checking facts, and being skeptical (Yin, 2018). This study used Google Hangouts for the focus group.

Interviews

The first method of data collection was individual semi-structured interviews concentrating on the interviewee's demographic information and the perceptions of the skills, knowledge, and resources of successful teachers of special education students. Interviews in case study research are more like guided conversations (Yin, 2018). The interviews were semi-structured because they were guided by written questions and limited lines of inquiry-based on the literature. However, the conversation allowed for follow-up questions to determine if themes emerged. Investigative questions used during the interview were open-ended, general, and focused on the study's central phenomenon (Creswell, 2013), which was developed by the

researcher, an appropriate approach for qualitative research. The interviews were conducted at a time and place convenient for the interviewer and interviewee. The interview was guided by the research questions to maintain focus on the central phenomenon. However, probing was used to provide further information when necessary. Probing included using open-ended follow-up questions to explore themes. All interviews were recorded, and the information was transcribed verbatim.

I began the interview by building rapport with the participants. I work with the participants in this study, so I have already built some rapport. I started by asking them about their week and how the classes were going. I explained the purpose of the study, allowing them to withdraw at any time. I then proceeded with the questions.

Interview questions

1. Please describe your association with Central Combined School and how long you have been connected with the institution?
2. How would you define evidence-based practices?
3. What evidence-based practices do you use in your classroom?
4. How do you, as an educator, learn about evidence-based practices?
5. How do you know if a strategy you are using is evidence-based?
6. Please provide a few examples of the role evidence-based practices play in your classroom?
7. What are the most important factors to consider when deciding how to teach content?
8. What steps do you take when you notice a problem in your classroom?
9. What role should evidence-based practices play in teaching and learning?
10. What strategies do you use for implementing evidence-based practices?

11. How do special education practitioners make decisions about what practices and policies to use?
12. What factors shape your interpretations and actions?
13. What would help you implement evidence-based practices in your classroom?
14. What factors might keep you from using evidence-based practices to solve problems in your classroom?
15. What else would you like to add?

Question 1 is a rapport building question to establish a relationship with the interviewed and determine their position and relationship with the institution. Questions 2–6 are knowledge questions to determine the interviewees' understanding of evidence-based practices by determining if they can define evidence-based practices. The questions determined if they know which evidence-based practices they are using in their classroom and how to find evidence-based practices if they need them. These questions described the knowledge the participants have about evidence-based practices and provide a rich, detailed description of their experiences (Creswell, 2013).

Questions 7–9 are designed to get at the attitudes the participants have toward evidence-based practices. Practitioners' attitudes toward the use and importance of evidence-based practices can drastically affect their knowledge and use of evidence-based practices (Brown & Zhang, 2016). These questions sought to understand practitioners' attitudes and their role in affecting the implementation of evidence-based practices in the classroom.

Street-level bureaucracy theory states that bureaucrats must work within the confines of the resources they are given (Lipsky, 2010). Questions 10–12 looked at the skills and materials needed to implement evidence-based practices. They sought to understand the skills and

resources that practitioners have or need to implement practices. Finally, Questions 13–15 looked at implementing evidence-based practices in the classroom and the resources required to accomplish that task. They provided a thick, rich description of the perceptions practitioners have toward evidence-based practices, the resources needed to implement them, and the factors that influence their decisions to implement them in the classroom.

Focus Groups

An online focus group was conducted using Google Hangouts. Due to this format, it did not need to be recorded or transcribed. It was used to achieve triangulation for the third data collection method. Participants had to teach or co-teach special education classes. Paraprofessionals needed to work with special education students, and administrators had to supervise special education teachers. Case studies depend on many sources of converging evidence. Triangulation allows the researcher to study the phenomenon from several different investigation paths and develop themes based on ideas supported in more than one data source (Yin, 2018). Triangulation allows the researcher to pursue converging lines of inquiry. They can study the phenomenon from several different investigation paths and develop themes based on ideas supported in more than one data source. Online means that the participants interacted on the computer rather than physically meeting. A focus group is an on-topic group discussion with people who know about it (Merriam, 2009). Both special education teachers and co-teachers participated in the online focus group. The purpose of a focus group is to corroborate the findings with a convergence of evidence (Yin, 2018). The online focus group used Google Hangouts.

The focus group participants worked together and had already established a rapport with one another. The researcher guided the group by asking questions, and the participants engaged

in informative, continued discussion without the need for following-up with probing-directed questions from the researcher (See Appendix E). The focus group took place after the interviews so that participants had time to think about their responses and information they would like to contribute to the group. The focus group question was derived from initial data analysis and expanded on the themes developed during the interviews and data collection.

The development of these focus group questions opened up discussion in the focus group and helped participants build on the concepts in their individual interviews. The responses illuminated the practitioners' perceptions by revealing their strategies, attitudes, and resources needed to successfully implement evidence-based practices in the classroom. Additional questions were added based on themes that developed in the interviews.

Related Documents

The final method of data collection was related documents. “Because of their overall value, documents play an explicit role in any data collection in doing case study research” (Yin, 2014, p. 107). To gain a clear understanding of factors that inform the decision-making process for implementing evidence-based practices in special education classrooms at Central Combined School, lesson plans for six months were collected from each class. The timeframe did not need to be extended for triangulation. They were evaluated for evidence-based practices by charting the practices as identified in the lesson plans. A classroom syllabus was also collected to see indications of evidence-based practices used in the classroom, and notes from in-service and faculty training meetings were also collected. Frequently, researchers cannot realize what should be collected until they are in the field (Bowen, 2009); therefore, any relevant documentation was collected and retained for analysis, including field notes. Documents were used to shed light on factors that impact teacher decision making regarding evidence-based practices and used to

triangulate the findings. A rigorous effort was made to integrate primary and secondary sources by collecting original documents where possible. This documentation related directly to the teacher's evidence-based practices and provided additional information on the skills and knowledge utilized with students in special education daily. It provided triangulation as to the practices used in the classroom daily (Yin, 2018).

Data Analysis

The data are analyzed in a qualitative study to reveal the answers to the research questions and determine what people are experiencing (Yin, 2018). Another characteristic of a case study is that data collection and data analysis must happen simultaneously (Creswell, 2013). For this study, the data were coded by themes as they were collected, and the researcher used bracketing to guard against bias (Yin, 2018).

According to Yin (2018), there are four general strategies for data analysis. First, data analysis must rely on a theoretical proposition. The second strategy is “working your data from the ground up” (Yin, 2018, p. 169). This strategy is the opposite of using the theoretical proposition and requires putting aside any theoretical proposition and directly pouring through the data. The third strategy is developing a case description, and the final strategy is "examining plausible rival explanations" (Yin, 2018, p. 172). Because it is vital to identify data analysis strategies before collecting data, the case study focused on a theoretical proposition to maintain focus.

This study used three methods of data collection: (a) interview, (b) documents, and (c) a focus group. Inductive coding was used to classify data and was completed throughout the data collection process. Each piece of data collected was broken down into smaller parts and analyzed for themes. Then, another piece was analyzed, which was ongoing through the process

(Yin, 2018). The data were categorized by the participant and organized by theme (Creswell, 2013). The documents were collected and analyzed. Then the data were compared to the interview and focus group data. Yin (2018) provided four principles to guide the researcher during the data analysis process: First, consider all the evidence. Second, address all plausible rival interpretations. Third, discuss the most significant aspects of the case, and finally, demonstrate familiarity with current thinking on the topic. These principles were implemented during the analysis of the data.

As a qualitative instrumental case study, data collection procedures included interviews, documents, and a focus group. All forms of participant data remained categorized by the participant during the data collection process (Creswell, 2013). This was essential for accurate record keeping. Recordings for the interviews were transcribed verbatim. Information was then loaded into a spreadsheet on the computer and manually analyzed and then organized into codes and themes (Yin, 2014) in light of the research questions. Merriam (2009) stated that coding is assigning a shorthand name to data to categorize and group the information. Themes come from the characteristics of the phenomenon being studied, professional definitions in literature reviews, common sense constructs, researchers' values, theoretical orientations, and personal experiences (Ryan & Bernard, 2003). Data were coded and categorized by themes revealed in the analysis process. Yin (2014) contended that the coding process allows the researcher to interpret and reflect on the data's meaning. The coding process may also be referred to as a categorical aggregation of the frequency of specifically identified patterns (Creswell, 2013; Stake, 1995).

I analyzed the data as they were collected to inform the next interview and the focus group by identifying themes as they occurred successively (Merriam, 2009). Additionally, the

categories needed to be broadly analyzed in light of the research questions (i.e., inductively) to prevent the premature exclusion of relevant information. Following this process, the categories were combined into five themes (Creswell, 2013; Yin, 2014). Documentation data were collected and analyzed, and then compared to the interview and online focus group data. Triangulating the data in this manner confirmed or contradicted previously collected data or offered new information not collected through the interviews or online focus groups. Yin (2014) provided four principles that guided this data analysis process: (a) attend to all of the evidence, (b) address all plausible rival interpretations, (c) address the most significant aspect of the case, and (d) use the researcher's own prior, expert knowledge. Adhering to these four principles and handling the data properly helped the researcher reconstruct the participants' reality (Lincoln & Guba, 1985) and helped to ensure an accurate analysis of the data. The data were developed into five themes that provide insight and knowledge about practitioners' perceptions for implementing evidence-based practices in the special education classroom.

Trustworthiness

To provide a high degree of trustworthiness, four essential criteria were observed in this study. They are credibility, dependability, transferability, and confirmability. To ensure that these characteristics existed in this study, a thick, rich description of the phenomenon was developed. Triangulation was also used by developing three sources of data.

Credibility

I used three data sources to conduct my research, as Yin (2018) states that triangulation provides robust research. Interviews were recorded and transcribed word for word. I will retain recordings and transcriptions for future analysis if needed.

Dependability and Confirmability

Dependability is the level to which results can be repeated, while confirmability is the level at which others can verify one's research (Creswell, 2013). Direct quotes will give voice to the participants and provide authenticity (Creswell, 2013; Yin, 2018). Participants will check the findings to ensure correct interpretations of their experience. Three data collection methods were used to provide trustworthy findings and ensure triangulation (Creswell, 2013; Yin, 2018). From these sources, I developed themes with rich, thick descriptions (Merriam, 2009). In addition, I developed an audit trail (Trochim, 2006), which documents what was completed, when it was completed, and why it was completed. The audit trail provides independent verification, which helps with confirmability and dependability (Donald, Jacobs, Razavieh, & Sorensen, 2006).

Transferability

Transferability, rather than generalizability, is the goal of qualitative research (Creswell, 2013). To determine transferability, or the ability to apply the results of a research study to another situation, I provided a thick, rich description. According to Creswell (2013), to determine transferability, a detailed description of the research situation is required. This study was conducted at a specific school, and transferability is limited.

CHAPTER FOUR: FINDINGS

Overview

This chapter present an in-depth review of this single qualitative instrumental case study's data analysis and findings. The chapter starts with a detailed description of the participants. Then, a description of the process used for identifying themes is provided. Next, the themes and sub-themes are discussed in detail. Lastly, the results are presented and are related to the central question and sub-questions that guided this single qualitative instrumental case study.

This single qualitative instrumental case study aimed to identify factors that informed the decision-making process of 11 special education practitioners to implement evidence-based practices in the classroom at Central Combined School. The research methodology was detailed and discussed in Chapter Three. Three different data collection methods helped determine answers to the research questions, including interviews, an online focus group, and documents. Chapter Four includes data analysis. It was conducted through coding and identifying emerging themes from the individual interviews (including field notes), transcripts of the online focus group, and documents. It was iterative and sequential and took place over two months. The data collection and analysis revealed five themes, including:

1. Factors based on Collaboration
2. Factors based on Environment
3. Factors based on Expectations
4. Factors based on Individualization
5. Factors based on Training

This study's central question sought to identify the factors that impact implementing evidence-based practices in special education classrooms. Sub-question 1 focused on the knowledge teachers need to have to implement evidence-based practices in the classroom. Sub-question 2 focused on the skills teachers need to have to implement evidence-based practices in the classroom. Sub-question 3 focused what resources teachers need to have to implement evidence-based practices in the classroom.

Participants

This study was conducted with a population of 11 participants. The highest category of participants was special education teachers (5); administrators (3), general education teachers

(2), and paraprofessionals (1) composed the remainder of the sample. The majority of participants were male (54%) and all of the participants met both the inclusion and exclusion criteria of the study. As criteria for this sample, teachers had to teach or co-teach special education classes. Paraprofessionals needed to work with special education students, and administrators had to supervise special education teachers. All participants were assigned a pseudonym to protect their identity.

Table 2

Participant Demographic Data

Participant	Gender	Years of Experience	Position
George	Male	20	Administration
Sally	Female	12	Administration
Robert	Male	10	Administration
Richard	Male	0	Teacher
Joseph	Male	8	Teacher
Frank	Male	3	Teacher
Sarah	Female	0	Teacher
Fred	Male	21	Teacher
Mary	Female	2	Teacher
Nancy	Female	3	Teacher
Janelle	Female	3	Paraprofessional

George

George is an administrator at Central Combined School. He has been in education for 23 years. George taught English for eight years, and during that time, he coached football, volleyball, baseball, track and field, and Scholastic Bowl. He became an administrator in 2006, and he has served in various districts.

George emphasized communication and fundamentals for his teachers. He said during the interview,

> The biggest thing teachers need to do is know their end game, what do we want the student to know or be able to do, and then design activities and instruction with the end in mind. Throughout instruction, teachers need to use formative assessment on chunks of information and provide those to students every three or four days.

He also commented, "We're really going to have to really design some common assessments to see where everybody is, to see where we need to use that data, and then I think you've got to use data to drive your instruction." When asked about the role that evidence-based practices play in the classroom, he said, "So I think it is definitely vital because of the fact that without it, I think you can run the risk of maybe not having any true learning happening."

Sally

Sally is also an administrator at Central Combined School. She has been at the school her entire 12-year career. She is licensed in special education and has her master's degree in administration. She was a special education teacher for eight years before she joined the administrative team.

Sally discussed the importance of addressing student needs and communication with all the stakeholders in the process of choosing evidence-based practices for student success. She also emphasized using well-established, evidence-based practices and not the "fringe, crazy out there." When she was asked about evidence-based practices during the interview, she said,

> We've had a big push for high leverage practices, things that are well-vetted, researched, have research to back them up, yield good results, widely practiced, I guess, across counties and states and other public school systems, published peer-reviewed, common.

She also highlighted the environment at Central Combined School:

> We really trust the people that we hire. I think with that, evidence-based practices play all the more important role. I trust that you're using something that has been vetted and published, and that's going to be effective for Johnny. So, I think because of the kind of some of the autonomy [the district and Central Combined School] gives to our teachers, I think that puts all the more emphasis on evidence-based practices.

Robert

Robert is another member of the administrative team at Central Combined School. The 2020–2021 school year was his first year as an administrator, but he taught English for about 10 years and worked in a co-teaching situation to support his students.

Two topics discussed during Robert's interview included using the data to drive professional development regarding evidence-based practices and the importance of the relationship with students when meeting student needs. He believes that the district and administration are great resources for the teacher to acquire evidence-based practices and learn how to implement them in their classrooms. When asked during the interview about how practitioners decide on implementing evidence-based practices, Robert shared that the district reviews the data. "So, I would say it comes from doing the research, obviously, where they (the district) would talk to the schools." He said, "They'll look at the kind of like I've got on my screen here, all the data and say, 'Hey, where do we need help as a division? Where does [Central Combined School] need help as a school?'" Robert went on to say that people in central office will research evidence-based practices to address the needs they see at the district or school level. Robert explained that the district would provide professional development to help teachers learn to implement those practices:

> And then they'll start to find different things that they can bring in people, or they can use . . . , and usually they try to use their own people to help with that. And that's when they start making that and build it as a culture.

Frank

Frank has been a special education teacher for three years at Central Combined School. He was on a provisional license his first year and got his teaching degree last year. His responsibilities have primarily included being a co-teacher and a reading mediation teacher. He teaches a couple of reading classes and co-teaches several English classes. He has also been a co-teacher for a few science classes.

Frank believes that some of the most significant factors that impact practitioner implementation of evidence-based practices include using data to assess student needs and building relationships with students. He stated during his interview, “Knowing what the student needs, especially in special education, trying to meet them where they're at.” When asked about evidence-based practices, he said,

> I think this plays a huge role, there's evidence to show us how students learn best. I think we need to take that. And I think that in relationships, so the two biggest parts of teaching and, you know, knowing what you're doing and why you're doing it, but then relationships if there's trust there, then students learn a lot easier.

He also believes it is essential to keep learning: “I think learning is a lifelong goal, a lifelong thing. You never stop learning. And certainly, I guess my viewpoint, I always want to be learning and keep up to date.”

Richard

The 2020–2021 school year was Richard's first year as a special education teacher. He previously worked as a special education paraprofessional for two years and taught at four or five different marching ensembles over the past few years. He has taught drumline and a random percussion program for a year. For three years, he was the drumline instructor and then a sound designer for a year, and the assistant band director for two years. Richard taught down at an independent indoor drumline as well for two years.

He said during the interview, "So a lot of music ed. But I fell in love with SPED [special education] and was much more patient in this world than I was in music." When asked about evidence-based education practice, Richard talked a lot about collaboration and fit to target. He explained the process,

> Communication, and collaboration as a team to pick the decision, and once the decision has been made, collaboration and communication again to do it because then we got to figure out if it's working or not. Because we can't just say, "Oh, we did it. So, they're fine."

Making a decision also requires collecting the data. Richard clarified,

> We have to take our time before we make a decision, really collect the data, and then make sure it's about the individual students rather than just like that disability or making those reactions that way. So, I would much rather make a decision than a reaction; I guess it is the long and short of it.

Joseph

Joseph has been a special education teacher for about eight years. He began his career with two years as a teacher's aide in a highly structured program in another district. Then,

Joseph transitioned to special education in the general education program, co-teaching math and then a few years later co-teaching history. For the last two years, he was part of a program for developmentally delayed kids. Although he has taught various programs in the area, this is his first year at Central Combined School. Currently, Joseph's responsibilities include co-teaching high school math and managing his caseload. Also, he coaches baseball and volunteers with the local fire department.

During the interview, Joseph was enthusiastic when he talked about his students and developing a relationship with them. When discussing the importance of dealing with behavior issues in a respectful way, he said, "I don't like being called out in front of other people. So, I've tried to respect that and the privacy of that child." He also discussed the need to collaborate with all the stakeholders, including the student, co-teacher, parents, and administration. He explained, "So it's a step by step progress and a case by case progress, I would say."

This emphasis on the individual needs of the student was a theme for Joseph. When asked about the most critical factors in implementing evidence-based practices, he talked about analyzing the data and digging into the IEP. He concluded, "Every student is different. To me, that's the biggest challenge. Personally, for any practice, any teaching aspect, every student is different."

Sarah

The 2020–2021 school year was also Sarah's first year as a special education teacher, although she does have two years of experience in the school system. She previously worked as a special education paraprofessional and a substitute teacher. This year, her Central Combined School's responsibilities include teaching reading, co-teaching English, and managing her

caseload. She is also part of the child study team, which evaluates struggling students and determines if a child should be evaluated for a learning disability.

Sarah shared her passion for the students and the importance of collaboration to achieve the best student outcomes and implement successful evidence-based practices. When asked during the interview how she would approach support for a struggling student, she said,

> I would review the IEP, speak to their gen[eral] ed[ucation] teacher, try and figure out what that hole is and why they're not doing well, whether it's behavioral, whether it's something in the classroom. If it is a differentiation issue, try and address that.

She continued to express the significance of collaboration:

> Yeah, I would speak with previous teachers to see what they've tried, to see what worked, whether that's a previous case manager, paraprofessionals, previous gen[eral] ed[ucation] teachers, to see how they were doing the year before, and what, if any strategies they had that worked.

Fred

Fred has 16 years of experience as a special education teacher. He started as a teacher assistant working with one individual student and then got his master's degree in special education. Since then, Fred has taught a group of adapted curriculum students. He has been at Central Combined School for two years.

When asked about evidence-based practices during the interview, Fred stated that in his experience, even though the evidence might support a practice, they do not always work for all students:

> I think the individual needs of the student come into play a lot where sometimes there may be a situation I can think of where behavior may have affected a certain type of

> evidence-based instruction, so you have to improvise and adapt it to that particular student.

Fred also discussed the importance of collaboration to meet student needs. "We collaborate daily and try to make sure that all of the students' needs are met and make sure that we are basically on the same page." He also mentioned relationships with students and their families.

Mary

Mary is an English teacher who works with special education students in her classroom. She has been a teacher for two years, both of those years at Central Combined School. When asked during the interview about factors that impact implementing evidence-based practices, Mary said,

> I think maintaining a lot of flexibility and just, I think, trying to go into it with a lot of organization and a lot of just expectations. And I think just whenever you try something new, you have to have very clear expectations at the beginning and communicate those to your students.

She also described the importance of student needs and how a relationship is key to understanding student needs:

> I think I always like having a relationship with a student is always very important. So, I think just building that rapport early, where we feel they're willing to ask for help and they feel comfortable. Also, just relationships with families and just having background knowledge, whether that's through like their IEPs or any documentation, or just knowing from, people who have experiences with them in the past, like what works for them. So, I don't know, I guess just the support relationship factor, and then just knowing their academic performance in the past.

Nancy

Nancy is an English teacher at Central Combined School. She is a career switcher who has been with the school for the last three years. In our discussion about implementing evidence-based practices, Nancy shared during the interview how important collaboration has been for her over the last few years, especially with instructional coaches.

> She's been a great resource for me [be]cause she'll just come right into class and hang out and jump in. And I don't, some teachers might not like that. I personally love it because I think the more collaboration you have . . . And kids love a new person in the room anyway, they think that's awesome.

Document triangulation demonstrated confirmation both on her calendar and interview notes. She explained how the coach helped her to become more comfortable with her co-teachers. "She [the instructional coach] helps me sort of get more comfortable with working with my co-teacher and talking to them while we're teaching, throw ideas back and forth while we're talking and modeling for the class." Nancy concluded by saying, "Mainly I think of people as my resources."

Janelle

Janelle is a paraprofessional. She has been at Central Combined School for the last three years. She has been involved in several other career fields and her previous classroom experience as a paraprofessional and a substitute teacher. She is responsible for helping students learn by providing support and redirection during the lessons.

During the interview discussion about her previous experience, Janelle said, "I wanted to be a teacher, and I probably should have pursued that career, but I didn't, but I do love being there for the kids as much as I can." That truth was evident throughout the interview as Janelle

talked about the importance of using effective evidence-based practices to meet the students' needs, building relationships with them, and learning through modeling: "Talking to them, the 'if I were you, or if you were me, what would you do?' Let's make it fun, make a game out of it." She also talked about the importance of collaborating with teachers and "staying in one accord."

Results

The purpose of this single qualitative instrumental case study was to identify factors that informed the decision-making process of 11 special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School. Triangulation allows the researcher to study the phenomenon from several different investigation paths and develop themes based on ideas supported in more than one data source (Yin, 2018). This single qualitive instrumental case study used three specific data collection methods, including interviews, an online focus group, and data collection. The interview and focus group questions (see Appendices D and E) were written to align with the central research question and specifically address the sub-questions' issues. The participants for this study were purposefully selected based on the criteria given above. The study was mentioned at a special education team meeting, and then participants were approached individually to complete the paperwork and schedule an interview time. All of the participants qualified for and were included in the study. Informed consent was acquired from all participants before the collection of any data.

Semi-structured interviews were conducted with each participant at the convenience of the interviewee. The purpose of the interview questions was to focus on factors that informed the decision-making process of special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School. The participants were given a written copy of the purpose of the study before the interview. They were also given an

additional verbal summary of the purpose of the study prior to the interview. All of the interviews were conducted in person and at the interviewee's convenience. Central Combined School has six special education teachers, three administrators, and three special education paraprofessionals. All of the administrators and special education teachers agreed to be interviewed (the researcher was excluded) and one paraprofessional.

Due to concerns about COVID-19, the focus group was conducted online and asynchronously. This means that participants could join the group at their convenience. Due to the online format, the communication was done in text form, eliminating the need for transcription. Participants were able to see their submissions, and therefore, the accuracy was ensured. The focus group was asked to respond to five questions (see Appendix E) and then respond to two of their peers. Participation was robust, with all but one interviewee participating in the focus group, and discussion exceeded the requested two responses. Participants' responses varied. Focus group members were known to each other.

Documents were collected from several participants before and after the interviews. Documents included participant notes in preparation for the interviews, calendars, field notes, lesson plans, and syllabi for their classes. In addition, emails and text messages were saved and printed and added to the document collection. The documentation provided further supporting evidence of themes as they developed. All participants remained in the study until its completion. Table 3 shows the alignment of the questions with the interview and focus group questions.

Table 3

Alignment of Research Questions to Interview and Online Focus Group Questions

Research Sub-question	Interview Questions	Focus Group Questions

1. How do educators working with special education students describe the knowledge necessary for teachers to implement evidence-based practices in the classroom?	2, 3, 4, 5	1, 2, 4, 5
2. How do educators working with special education students describe the skills necessary for teachers to implement evidence-based practices?	10, 11	1, 3, 4, 5
3. How do educators working with special education students describe the resources necessary for teachers to implement evidence-based practices in the classroom?	12, 13, 14, 15	1, 4, 5

Theme Development

Emergent themes based on the analysis of the data are described in this section. The data were analyzed by following the method described in Chapter Three. The interviews were conducted over three weeks. Participants were given the interview questions before the interview data. This allowed the participants to review the questions and consider their answers. A few participants wrote down their thoughts before the interviews, and they provided those notes to me as additional documents. It was valuable for the participants to reflect on implementing evidence-based practices and developing thoughtful responses to the interview questions. As the interviews were completed, the data were collected and sent for transcription. Upon completion of the transcription process, the data were read through and reviewed for accuracy. During a second reading of the data, highlighting was used to emphasize the important words and concepts, and notes were taken in the transcript margins. The highlighted words and phrases were transferred to an excel sheet. The codes were identified through initial coding, memoing, enumeration, bracketing, and member checking to guarantee trustworthiness and

triangulation of the findings (Creswell, 2013; Stake, 1995; Yin, 2014). A frequency count was created and analyzed. Triangulation of the data was used to combine the participants' various perspectives and the data collection methods, increasing the study's validity. Through coding, the meaning of the data was illuminated by identifying essential patterns and themes (Stake, 1995). Through this process, a list of 52 codes emerged. Codes are words or phrases related to the research questions and frequently occurring in the data. Codes were then reviewed again using categorical aggregation to combine redundant codes before developing categories based on the similarity of information within the data (Creswell, 2013). Seventeen categories were developed, and then a graphic organizer was used to assemble specific factors that impact the implementation of evidence-based practices. They were grouped into themes. Table 4 displays the frequency of recurring words or phrases which allow the identification of the themes.

Table 4

Frequency of Codes Across Data Points

Themes	Code Word or Phrase	Occurrences Across Data
Collaboration	Stakeholders	4
	Peer observations	3
	Relationships	9
	Open dialogue	3
	Talk	98
	Colleagues	8
	Strategy	29
Environment	Grace	7
	Feel supported	12
	Creative	4
	Flexible	6
	Positive culture	2
	Open	3
	Accountable	5
	Growth mindset	2
	Efficacy	3
	Action	4
	Support	41
	Feedback	15
	Freedom	3
	School culture	4
	Policies	3
Expectations	Standards	5
	Curriculum	34
	SOLs	8
	Balance	9
	Prioritize	12
	Assessments	9
Individualization	Student need	15
	Background knowledge	7
	Works	51
	Person	25
	Apply	6
	Rapport	3
	Time	75
	Materials	4

Training	Evidence-based practices	40
	Streamline	6
	Test and release	2
	Reliable	2
	Implement	76
	Data	57
	Balance	9
	Current	12
	Filter down	8
	County	51
	Central Office	5
	Substitute	5
	Funds	1
	Plan	25
	Professional development	32

Research Question Responses

Research questions "provide an opportunity to encode and foreshadow" (Creswell, 2013, p. 109) an approach to inquiry. The central research question ("What are the factors that inform the decision-making process for special education practitioners for the implementation of evidence-based practices in the classroom?") provided the foundation of this single qualitative instrumental case study. The following responses to the research questions were based on data from all three methods of collection. The three methods provided trustworthy findings and ensure triangulation (Creswell, 2013; Yin, 2018).

Sub-question 1. The first sub-question for this research study asked, "How do educators working with special education students describe the knowledge necessary for teachers to implement evidence-based practices in the classroom?" Most answers were helpful and included information pertaining to collaboration, environment, expectations, individualization, and training. To make decisions in the classroom, Ryan et al. (2016) stated that teachers need to know the subjects that they teach and the methods to explain the specific content. From the data

analysis, categories emerged that tied directly to the knowledge that impacted implementing evidence-based practices in the classroom related to collaboration, environment, expectations, individualization, and training.

Collaboration. All participants considered collaborating and communicating with colleagues to be a vital factor in implementing evidence-based practices. One of the aspects that they considered important was knowing who all the students' educational stakeholders are. Knowing the students and the families allows a deeper level of collaboration and depth of data when identifying which evidence-based practices to meet student needs. During the interview, Sally said it this way:

> I'm a huge advocate of parent contact, especially at the middle school level. I know that parents tend to be a little less supportive as kiddos get into high school, but the IEP process is most successful when it has a collaborative approach.

She continued by explaining that it should be part of regular practice. As she explained later during the focus group, "In your professional repertoire of a plan of attack and getting all the stakeholders involved and is this related to the disability or not related to the disability? Because we all struggle with things."

Mary described how knowing the stakeholders is part of her process to meet student needs: "But of course, eventually, I would kind of reach out for support to their caseload manager or to parents. So, I guess just seeking support from people who know students better than I do." Robert agreed, "I try to always communicate with parents that we're all on the same team". He explained, "And most parents, they're receptive to that."

Environment. Knowing your environment and school culture is also an essential factor for implementing evidence-based practices. Participants emphasized knowing the school

environment and policies and the expectations of standards, curriculum, and assessment. School culture and policies significantly impact the teaching environment, and practitioners must know those benefits and limitations when implementing evidence-based practices. Frank shared during the interview, "I think sometimes policies play a part, again, coming from the County or coming from administration." While sometimes limitations affect the practitioner's ability to implement evidence-based practices, the benefits of the environment often have a greater effect. Frank shared in the focus group that teachers need to know why they are implementing an evidence-base practice, but also they need an environment where they know they are supported and encouraged:

> I don't think teachers need to be fully comfortable when they implement a new strategy. They should certainly understand what and why they are starting it, but there certainly will always be a level of discomfort at first because it is new. During this time, they need to feel supported and encouraged because it oftentimes is a learning curve. We don't expect our students to do everything perfectly the first time they learn something. Teachers should be shown that same grace.

Robert shared how the district analyzes data for a school, sees a need, and provides professional development in evidence-based practice. Once practitioners implement that evidence-based practice, the school's environment or culture reinforces that practice and makes it sustainable. "And that's when they start making that and build it as a culture."

Expectations. Expectations are another factor that impacts the implementation of evidence-based practices. Part of the knowledge involved with expectations is the standards and curriculum that students need to know. George explained how practitioners need this information when choosing evidence-based practices to use in the classroom. "Go through and

what standards are most important, what are they going to need, what's going to be tested more, focus on those. And then you design your curriculum around that." Nancy described how curriculum guides are an expectation and a starting place for developing a list of useful evidence-based practices in content areas. She said, "Make a list like we've got our curriculum guides, maybe that could go into our curriculum guides. Here's our list of evidence-based practices that we came up with in 2021." Mary shared in the focus group, "I think the basic skills that we expect of teachers go a long way here, even if it sounds simple. Understanding your students' needs, understanding your standards and curriculum, and understanding general best practices for delivering instruction are key."

Individualization. The needs of the student are an essential factor regarding the use of evidence-based practices. When asked about using evidence-based practices, Frank said. "Yeah. Just knowing what the student needs, especially in special education, trying to meet them where they're at." Teachers need to know the needs of individual students so that they can address any issues. This includes having information about their background knowledge and what works for that student to fit it to them. Sally described the process during the interview like this:

> When I was in the classroom personally, I used to spend a lot of time diving and digging into that (the testing and IEP), and okay, it says that Johnny has weaknesses in phonological processing. What is phonological processing? What does it mean to have a weakness of phonological processing? How does that impact Johnny in the classroom? What things can be done to accommodate that? What things can be done to help strengthen his phonological processing? And that's kind of how I would go about making my plan for Johnny, but also my practice in my classroom.

Teachers can gain background knowledge on a student from the IEP and other paperwork and the students themselves. Mary explained it this way:

> I think I always like having a relationship with a student is always very important. So, I think just building that rapport early, where we feel they're willing to ask for help and they feel comfortable. Also, just relationships with families and just having background knowledge, whether that's through like their IEPs or any documentation, or just knowing from, people who have experiences with them in the past, like what works for them. So, I don't know, I guess just the support relationship factor, and then just knowing their academic performance in the past.

Robert supported this idea:

> But knowing, I think, just knowing the students. And it sounds simple but getting to talk to them. And on a genuine, like, "Who are you?" and things like that. And I would always, like the first week of school, I'd always send out a letter to their . . . well, have them take it home and have the parent tell me about their child, just so I could figure . . . things that the child wouldn't tell me. And I never shared anything, but things that would help me to know, "Hey, this person loves this, or this person gets nervous on test days," or whatever. And you'd figure them out over time, but it was a good thing from early on. And then I would make sure the students were aware that, "Hey, I know you love sports," or whatever, or, "I know you love reading," and I would try to learn what they liked and get to know them on that way.

Teachers also need to have current data to drive their instruction to know that students have not made further progress or regressed since the current paperwork was created. When discussing evidence-based practices, Fred described one method of knowing student's needs:

"Student assessment data, the instructional practices, looking at what we're doing and what's working, what's not working and making those necessary adjustments when a student is isn't successful."

Training. Training is another factor that impacts the implementation of evidence-based practices in the classroom. Practitioners need to know which practices are evidence-based. During the interview Robert discussed being a new teacher and his understanding of evidence-based practices: "I remember as a new teacher too, people would say, 'Are you using evidence-based practice?' And I would say, 'I guess.' And I'd always remember. I would go and try to Google them and figure out what they are exactly." He explained further, "But I was using them, and you learn in college, and you learn, again, over time. And then talking to people."

Participants often cited collaborating with colleagues as an important factor in implementing evidence-based practices, but they admitted, sometimes they were not sure the methods were evidence-based. Sarah explained in the focus group,

> I would agree that a teacher has to be made aware of evidence-based practices. Unless the teacher is given time during the day to research the latest strategies and read the latest research, I think it is important for the county to lead that process and provide the PD [professional development] for teachers.

The participants cited a variety of ways to access evidence-based practices. Frank also cited the county as an important resource for learning about evidence-based practices. "So, I think the County does a pretty good job as far as offering different seminars and training and stuff like that I can attend." He also said, "And then also just doing my independent research." Joseph said he knows something is evidence-based when he sees the data to support it. "How do

I know if it's evidence-based, evidence is out there, data is out there to support." Sally suggested being part of a professional organization:

> So, I think that being a part of professional memberships for educators in general, but then also specifically for administrators, so they give us a little dip of everything, is a good way to continue to stay current on that.

Participants suggested that the county could streamline the process by testing and releasing reliable, evidence-based practices. George said,

> So I think that we now are seeing a much better approach to implementing evidence-based practices, where we have, at the division level, you have someone who's going out there and looking for those next practices or best things for teachers to do.

Robert explained how evidence-based practices should "filter down" from the district: "They'll [the teachers] get it kind of filtered down." He explained, "And they [the district] kind of filter it down to the admin team and then they [the admin team] work with all the students and the teachers." It was interesting to note that the administration considered it the responsibility of the district and the administration to provide evidence-based practices to the teachers. Although George explained during the interview,

> So, I think those are what you do. You've got to rely on your leadership. It has to provide those opportunities. And also the teachers need to be out there looking too, and if they find something they're interested in, I want them to read it to the principal so that we can make sure we're sending them to conferences or sending them to professional development sessions as we're able to.

Mary shared during the focus group,

> There needs to be a more streamlined process to educate teachers about these evidence-based strategies. Sometimes it seems overwhelming to do research on your own. If there is a way for county professionals to test specific strategies and efficiently release them to teachers, that would be helpful.

Sub-question 2. Teaching cannot be reduced to science or formula because of the skill involved in the process. Gage (1985) and Marzano (2007) called this the art of teaching. Sub-question 2 sought to understand the skills required to implement evidence-based practices in the classroom. The participants shared skills that apply to each of the five themes. It takes skill and open dialogue to build relationships, be successful with peer observations, create an environment and culture growth, balance priorities and expectations, and develop through training to use data and implement evidence-based practices.

Collaboration. Collaboration is the key to individualizing instruction for special education students and determining what evidence-based practices to implement. During the interview George explained the open communication that needs to exist:

> [Whether it is a] co-teacher or an inclusion teacher or a special education teacher; I want the special education teacher to make sure that they've established that relationship with the student and with the parent and with the teachers. Right, it's a two-way street communication.

One factor that can impact the implementation of evidence-based practices regarding collaboration is peer observations. Robert described the process to the focus group: “where teachers would observe other teachers and gain ideas from them. It also helps build a positive culture and collaboration.” Developing the skill of observing others to gain insight is another factor contributing to the successful implementation of evidence-based practices. Peer

observation can allow a practitioner to see an example of a well-implemented evidence-based practice. They can allow practitioners to brainstorm what practice to use to resolve an issue, and they can allow practitioners to collaborate during the process of implementing a new practice.

Environment. A growth mindset is a fundamental goal of the administration that wants to develop an environment that promotes evidence-based practices. Robert described the need in the online focus group:

> Teachers need an environment that has a growth-mindset and is supportive. Teachers need to be able to feel supported to try new things. Administrators, instructional specialists, etc., need to be in the classrooms learning from teachers and finding new ways to improve on the teaching in the buildings.

A growth mindset's key characteristics include open discussions, teacher efficacy, support, freedom, feedback, and accountability. Frank talked about open discussions in the focus group: "It needs to be an atmosphere that encourages new ideas and allows teachers to voice their opinions. I think I have learned the most with this process – bouncing ideas off different teachers and discussing practices with each other." Richard suggested, "Offer PD, but try to encourage open dialogues," while Sally discussed teacher efficacy: "I think teachers with high efficacy both value and seek to implement evidence-based practices." Mary addressed the issue of support in this manner: "I agree that an environment of collaboration and support is essential." Frank also talked about freedom during the interviews: "I do think teachers need to have the freedom to adjust curriculum if they feel it will work best for their students."

The focus group discussed the importance of accountability within the environment. The county needs to be accountable to continue to support the PD they have provided; Sally said, "Agreed. Follow-up to PD and continued support is needed too. Not just a fly by PD that's

dropped in our laps but not supported." Teachers need to be accountable for using evidence-based practices, as Mary explained in the interview:

> So I think just like holding teachers accountable to, for making sure you have purpose in what you're doing and making sure that you're not just doing something because it's fun or because it's easy or just because you're actually targeting student growth and using data that is going to help your students.

Expectations. Two skills that factor into the implementation of evidence-based practice include prioritizing demands and creating data-driven instruction. Sally explained during the focus group, "As a new teacher, I think it is important to help teachers prioritize what needs to be consistent in their classrooms." She continued, "If a teacher has a firm grasp on the basics, it won't be overwhelming to implement new evidence-based practices. I think this balance is sometimes the most difficult." Teaching requires the prioritizing and balancing of sometimes conflicting demands while using formative assessments to creating data-driven instruction. George described the process,

> I think one of the things that you have to do is you have to use common formative assessments, which we've seen now, the data shows us that if we chunk up common formative assessments and do those every couple of days. And no more than three, four questions. They don't have to be huge. You're going to get formative data to see what kids know so you can kind of adjust your teaching as you go. I think formative assessment is more important, especially now more than ever.

Individualization. One of the skills that allows practitioners to individualize instruction and implement evidence-based practices in the classroom is building relationships with the student and seeing him or her as a whole person, not just a learner. Another skill that is vital to

implementing evidence-based practices is the ability to build relationships with all the stakeholders involved in education. This includes the ability to create relationships and a culture of open dialogue. Frank addressed the relationship with students in his interview:

> I think just the relationship with the student plays a big part as far as how to address it, if I have a really good relationship with a student, that's going to all address it differently than a student thing, just maybe met for the first week or something along those lines.

Janelle explained how she builds relationships in her interview: "Talking to them, the 'if I were you, or if you were me, what would you do?'" Nancy addressed the relationship with parents: "I try to talk with those parents at least sometime in the first month or two of school so that they know who I am and that I'm available as well as the student's SPED teacher." Robert said, "I always try and communicate to parents . . . we are on the same team . . . and most parents are receptive to that." Richard provided an example of teacher communication: "I have noticed that my co-teachers are always collaborating as well as discussing where they found their materials." Joseph talked about the relationship with the administration during the focus group:

> The one thing I love about this administration is that if you have an idea, they hear you out and talk with you through it. We can bounce multiple ideas off of them without the fear of being criticized. I have also found that just having an open dialogue with gen[eral] ed[ucation] teachers in the building works as well.

Sally responded, "Yes! Collaboration and input from stakeholders.. Finally, Sarah summed it up in the focus group: "Evidence-based practices go beyond finding the best way to teach math or how to read but also involve things like relationship building and classroom management."

Another vital skill is learning about evidence-based practice and applying it to their own classroom and students. Not every evidence-based practice is going to work for every learner. Richard explained in the focus group,

> I think that it is important to remember that it is your classroom and your kids. Yes, there has been evidence found that certain pedagogical strategies can be found successful, but just because it worked somewhere else does not mean it will work perfect here. I think it is also important to get comfortable using said practice before you just apply it in the classroom.

Fred agreed. He stated in his interview, "Sometimes you have to adapt it to fit the mold of your class, but it's based on those research articles and research techniques." Successful practitioners know how to fit a practice into the fabric of their current classroom and prioritize current needs.

Training. Training should focus on how to apply data from formative assessments and how to use evidence-based practices. Richard explained during the interview,

> If we're not learning what methods and what we can use in the classroom, then we're kind of wasting our time or maybe where we're spending more time on something where we wouldn't have to be if we were to use the proper methods.

Professional development should be provided to let practitioners know about pertinent evidence-based practices. Then planning time should be provided to allow practitioners to figure out how the new practice best fits with their current schedules and priorities. Frank said in his interview, "Maybe they've heard something or read something that I haven't heard yet. And so being able to apply that." Practitioners should also have the opportunity to see the classroom practice and be provided with feedback as they implement the practice. Joseph explained during his interview,

"So the show and tell doesn't work too well with me because I have to see it before I can teach it." Once it is implemented, George described the next step:

> I know during my observations with teaching, you know I will say, "Hey, this is what I saw. This is what you need to work on." And typically, the second observation of "Hey, I saw that you did this differently from the first time."

The documents support the value of training. All of these things will help the practitioner develop the skill of moving the practice from the theoretical to the practical.

Sub-question 3. Techniques that require resources, including time or expertise that teachers do not have, are not valuable to the teacher, despite the amount of evidence regarding its effectiveness (Bartels, 2003). Based on the participants' responses, resources impacted all five themes: collaboration, environment, expectation, individualization, and training. Collaboration takes time to work together. Teachers are their own greatest resources, but it takes time to benefit from a colleague's insights and a supportive environment. One resource that can help practitioners meet expectations and individualization is a curriculum based on evidence-based practices and written formative assessments. The county can provide training to filter down professional development on evidence-based practices and planning time to apply those practices to the classroom's current priorities. These resources may require time, materials, and finances, but they will increase the ability to meet student needs.

Collaboration. One of the resources that practitioners need to implement evidence-based practices is time to talk to their colleagues. Sally said during her interview, "Collaboration is also super helpful regarding the implementation of evidence-based practices," and "we are our greatest resources." Sarah described professional development for a curriculum she is currently attending through the county in the focus group. She explained,

> This program has a lot of evidence-based practices for us to learn, and we are being given instruction and time from the county to learn these new practices. This has been the most helpful to me because I have someone to ask questions of if I don't understand something, and I can see examples of how to use it in the classroom.

Frank took this idea a step further:

> In order to implement them, a teacher must know about them. I think sometimes the evidence can be presented, but then the implementation piece or how to use this new information can be missing, but often collaboration with other teachers can help address this if it was not presented well.

One critical resource practitioners need is time to collaborate. This idea is triangulated through the meetings with colleagues on the participants' calendars.

Environment. The greatest asset concerning the school environment is a positive culture. A positive environment is flexible and creative, provides support, and allows the grace to make mistakes. Sarah said in the focus group, "I think that teachers need to feel like they will be supported as they struggle and even fail maybe. Trying something new in the classroom can be very challenging. Some practices may take more time to implement than others." She goes on to provide an example:

> For example/hypothetically, if I am say using Lexile's for my readers even though this has been proven to be ineffective by the latest research, I am still "safe" because it is what I am most familiar with. I may look the most competent because it is what I have the most experience with. If I was to switch to focusing on phonics for evidence-based practice, I may have a learning curve. I have to learn a new method of teaching and

> curriculum. I think teachers will be more open to learning and trying something new they aren't as familiar with if they have sufficient training, instruction, and grace.

Sally agreed, "I agree with all of the above; grace, life-long-learning, and support as we blaze new trails is an environment conducive to trying anything new!" Sarah also said a positive environment will contribute to a teacher's willingness to ask for resources: "If a teacher has inherited something (let's use Lexile books again as the example) they may not feel comfortable asking for the funds for a new curriculum or training for the latest or best." A positive environment is a tremendous resource in promoting the implementation of evidence-based practices.

Expectations. With the increased accountability to meet students' needs, practitioners must use their resources to meet expectations. Frank explained during his interview some of the expectations he faces: "Primarily, data and assessments and, and just tracking that, but at the same time, I think sometimes policies play a part, again, coming from the County or coming from administration." A good evidence-based curriculum can help practitioners. George explained, "Go through and what standards are most important, what are they going to need, what's going to be tested more, focus on those. And then you design your curriculum about that." When Richard was asked about expectations, he said, "Just knowing my priority list."

Individualization. Practitioners need to know their students' needs and what works for them to learn. They need to have the skill of seeing the whole child and the ability to use data to drive instruction and effectively apply evidence-based practices. These endeavors require resources. Practitioners need time to develop relationships with their students, provide assessments, analyze data, and learn new skills. They need the training to master their craft. Practitioners should be lifelong learners. Sometimes it means they need a new evidence-based

curriculum or material. During his interview, Joseph talked about using background knowledge to meet students' needs:

> Whereas special education, I can sit here, look at any child from third grade on up to 12th grade, see what they need, see what their strengths and weaknesses are. And then really just your availability of resources. You can sit here and work with a child, but if you don't have the resources to adequately prepare that child, you're going to fail and that student's going to fail.

Budget is another factor that impacts teacher's ability to individualize instruction. Sarah said,

> A lot of it comes down to whether that's additional bodies, teachers or paraprofessionals, whether that's software purchasing for individualized programs for learning or things in the classroom that might help, that if it's a student who is really fidgety, if I don't have it in the budget for them to have a little rubber band thingy, then that's something that I may not try because I don't have any in supply.

Training. Resources for training include time and personnel. Richard shared an example during his interview of when he was told about a practice on Friday and told he had to implement it on Monday: "So, Monday we all tried to do it, and it was an utter failure. We said, 'Well, this isn't working.' But I think that's one thing, is you have to give teachers time." Frank talked about the county as a resource for personnel and professional development in the focus group:

> I think the environment needs to be one that supports and encourages teachers to branch out or try new methods, especially if it is evidenced based. This starts at the county level and then trickles down to admin and even other teachers. If the county does not provide PD for teachers, then teachers will never know if there are any newer evidenced-based practices.

Robert continued, “And then that's where you get your instructional specialists that will come down and try to help you with the different teaching methods.” As Robert pointed out, the county can be helpful with that process. Fred explained in his interview, “I probably don't have as much time for current research as I did back when I was getting my master's.” Sarah said,

> I would agree that a teacher has to be made aware of the evidence-based practices. Unless the teacher is given time during the day to research the latest strategies and read the latest research, I think it is important for the county to lead that process and provide the PD for teachers.

When teachers are expected to do the research, they need to have time to practice scholarship as part of their day.

In the next three tables (see Tables 57), each research sub-question is listed and its related codes and properties are illustrated with examples of the participants’ words.

Table 5

Codes, Properties, and Participant Examples for Sub-question 1

How do educators working with special education students describe the knowledge necessary for teachers to implements evidence-based practices in the classroom?		
Initial Code	Properties	Examples of Participants’ Words
Availability of Resources	provide	We can’t provide that service or something along those lines.
Background	student data	Just having background knowledge, whether that's through like their IEPs or any documentation, or just knowing from, people who have experiences with them in the past, like what works for them
Collaboration	communication	But of course, eventually I would kind of reach out for support to their caseload manager or to parents. So, I guess just seeking support from people who know students better than I do.
Effective	works	You want effectiveness
		What works for one child may not work for another

Environment	policies	I think sometimes policies play a part, again, coming from the County or coming from administration.
	culture	And that's when they start making that and build it as a culture
Evidence-based Practice	proven practices	I'm always looking to use it because it's proven and there's so much of it that you could come up
Expectations	the standards	Go through and what standards are most important, what are they going to need, what's going to be tested more, focus on those.
Individualization	addressing issues	I pulled him out in the hallway, we talked, he's still having issues.
Stakeholders	input	Collaboration and input from stakeholders. Well said.
Student Needs	fit to target	Just knowing what the student needs, especially in special education, trying to meet them where they're at.
Training	evidence-based practices streamlined process	needs to be a more streamlined process
	test and release	County professionals to test specific strategies and efficiently release them to teachers, that would be helpful.
	reliable	Teachers need some reliable strategies and skills that they can implement daily in their teaching.

Table 6

Codes, Properties, and Participant Examples for Sub-question 2

How do educators working with special education students describe the skills necessary for teachers to implement evidence-based practices?		
Initial Code	Properties	Examples of Participants' Words
Apply data	apply	keep up with it and then apply it
Collaborate	open dialogue	Offer PD, but try to encourage open dialogues
Environment	growth mindset	environment that has a growth-mindset
Expectations	formative assessment	get formative data to see what kids know so you can kind of adjust your teaching
Individualization	adapt it	Sometimes you have to adapt it to fit the mold
Prioritize	prioritize	important to help teachers prioritize

Relationship	building relationships	involve things like relationship building and classroom management
Support	continued support	PD and continued support
Training	learning methods	If we're not learning what methods and what we can use in the classroom, then we're kind of wasting our time.

Table 7

Codes, Properties, and Participant Examples for Sub-question 3

How do educators working with special education students describe the resources necessary for teachers to implement evidence-based practices in the classroom?		
Initial Code	Properties	Examples of Participants' Words
Collaboration	personnel	because I have someone to ask questions of if I don't understand something
District	instructional coaches	instructional specialists that will come down and try to help you with the different teaching methods
Environment	positive culture	will be supported as they struggle and even fail maybe
Expectations	policies	Policies play a part, again, coming from the County or coming from administration.
Individualization	budget	If I don't have it in the budget for them to have a little rubber band thingy, then that's something that I may not try because I don't have any in supply.
Materials	resources	really just your availability of resources
Time	time	one thing is you have to give teachers time
Training	Professional development	Unless the teacher is given time during the day to research the latest strategies and read the latest research, I think it is important for the county to lead that process and provide the PD.

Summary

The purpose of this chapter was to present the findings of this research study. Data were collected through semi-structured interviews, an online focus group, and documents to gather

practitioners' perspectives at Central Combined School regarding implementing evidence-based practices for special education students. Data collected provided a rich, thick narrative text used to identify factors that impacted the implementation of evidence-based practices for special education students. The documents were used to triangulate data and further revealed trends and themes developed in the online focus group and interviews. This study's findings included five themes related to factors that impacted implementing evidence-based practices: collaboration, environment, expectations, individualization, and training. Chapter Five will present the discussion, implications, delimitations and limitations, and recommendations.

The knowledge gained from this study revealed critical aspects of implementing evidence-based practices. Factors regarding collaboration included collaborating with all stakeholders. General education teachers, special education teachers, paraprofessionals, administration, parents, central office, and community participants needed to work together to help students make sufficient progress. While collaborating with peers may not always result in evidence-based practices, counties can develop core values throughout the district, promoting education and supporting the use of evidence-based practices in the classroom, resulting in a shared vision. A positive and open environment that allowed for growth and grace encouraged teachers to try new methods. New Teachers needed administrative support to develop skills in balancing and prioritizing the basics of standards and curriculum so that adopting new methods does not seem so overwhelming. Factors which promoted the implementation of evidence-based practice regarding individualization included building relationships with all stakeholders to determine student need and what works for the student, using formative assessments and data-driven decision making to select evidence-based practices, and implementing the practice into the current fabric of classroom instruction. Administrators and county leaders need to provide

professional development, including modeling and time to plan and integrate the evidence-based practice into the classroom, instructional support to ask questions, and follow up with observations and feedback. While all of these factors can be addressed with tangible resources such as time, materials, and finances, this research indicated that the most critical factor was a concerted effort to establish evidence-based practices as a core value of the school and a positive environment for teacher growth.

Ethical Considerations

I received Institutional Review Board (IRB) approval for research before any steps were taken to obtain data. Before research was conducted, permission was obtained from the school district and the university supervising this research. All participants understood the study's scope, how data were collected, and the security of the data, including the use of a pseudonym and the confidentiality of data. The named methods cover the ethical considerations of informed consent and data storage and destruction (Creswell & Poth, 2018). Considering that the potential for researcher bias exists (Yin, 2018), I sought counsel as I analyzed the data and allowed each participant to re-read the transcript of each interview to ensure correct perception and discussion. I submitted my findings to my chair and committee for final review and approval.

Summary

This qualitative study identified the factors that impact the implementation of evidence-based practices by special education teachers. A case study method was used to provide insights into special education teachers' perspectives regarding the issue. The research design, research procedures, and data analysis for this study have been reviewed in this chapter. These were followed by the setting, participants, procedures, and the role of the researcher. The chapter concluded by discussing ethical concerns.

CHAPTER FIVE: CONCLUSION

Overview

Due to the increased focus on assessment and accountability in education, practitioners need successful methods to implement evidence-based practices in their classrooms (Spaulding, 2009). However, there is a gap in the research describing why many published research practices have not been implemented in the classroom (Boardman et al., 2005). The lack of implementation is a problem because students need teachers who use best practices. Students need to become productive members of society. Evidence-based practices can affect meaningful change (Slavin, 2002), especially for students who require the most effective instruction to be successful (Cook & Cook, 2013). The purpose of this single qualitative instrumental case study was to identify factors that inform the decision-making process of 11 special education practitioners for the implementation of evidence-based practices in the classroom at Central Combined School. This chapter begins by presenting a summary of the research study findings. Following the summary of the findings is a discussion of the study findings concerning the empirical and theoretical concepts found in the literature review. This chapter will also present theoretical, empirical, and practical implications based on the research study findings. Also included are limitations of the research and recommendations for future research.

Summary of Findings

Because the purpose of this study was to reveal the factors that affect the implementation of evidence-based practices in special education classrooms at Central Combined School, it was essential to explore practitioners' perceptions. A single qualitative instrumental case study design was used because it allowed examination of a contemporary phenomenon within a real-

world setting (Yin, 2018). Based on the collected data, codes were developed and answered the central research question and the three research sub-questions. Data were collected from 11 participants. Three of the participants were administrators, two were general education teachers, four were special education teachers, and one was a special education paraprofessional. Individual interviews, online focus groups, and documents were used to collect data. A thorough analysis of the data was conducted, first through initial coding, then through axial coding, and finally through the development of themes. From the analysis, five major themes emerged. The prevalent themes were factors based on collaboration, factors based on environment, factors based on expectations, factors based on individualization, and factors based on training. The correlation between themes and research questions was then considered. Based on this method, each research question was answered. Answers to these questions allowed educators to hear the participants' voices directly while advancing knowledge and improving practice (Creswell & Poth, 2018). Each question was presented and then answered using the major themes and specific data from participant interviews, focus groups, or documents. Using the themes and the actual words of different individuals, the participants' perspectives were captured as the themes developed. Through the analysis and synthesis of the data, five themes emerged to answer the three research questions.

Discussion

The purpose of this single qualitative instrumental case study was to identify factors that impacted the decision-making process of special education teachers for the implementation of evidence-based practices in the classroom. Utilizing a single qualitative instrumental case study research design, the researcher identified factors that impacted implementing evidence-based practices in special education classrooms for 11 special education practitioners. With the view

that educators are street-level bureaucrats, practitioners are the people who implement policies and reforms. Due to limited time, materials, and training, these reforms are not implemented with fidelity across organizations. There is a need to examine what makes implementation successful (Dorn, 2010). The data collection process included individualized participant interviews, focus group interviews, and document analysis. The interviews were professionally transcribed by Rev.com and the focus group was conducted asynchronously through Google Hangouts, eliminating the need for transcription. The data collection process provided a thick description of the phenomenon: 11 individual interviews that lasted 25–45 minutes each, an asynchronous focus group that was open for a week, and documents obtained from the participants. After a thorough analysis of the data collected, the researcher found 83 codes from the data. Through open and axial coding, 52 codes were identified and then reduced to 17 codes. Two strategic ways researchers can obtain new meanings about cases are through direct interpretation or categorical aggregation (Stake, 1995). The researcher engaged in categorical aggregation to condense the 17 codes into five inclusive themes developed from frequency and participant references. The following five themes were identified after finalizing categorical aggregation: (1) collaboration, (2) environment, (3) expectations, (4) individualization, and (5) training. Table 4 in Chapter Four displayed the initial codes identified through open coding. The themes that emerged aligned with the research findings discussed in Chapter Two. Street-level bureaucracy theory contributed to this study as a theoretical and analytical framework (Lipsky, 2010). Street-level bureaucracy theory states that social services workers use discretion to administer required policies (Lipsky, 2010). This chapter outlines and discusses the findings of this study. The following sections discuss both the theoretical and empirical results along with the practical implications of the study.

Theoretical

This study's theoretical framework is grounded in street-level bureaucracy theory as developed by Michael Lipsky (1969). The street-level bureaucracy theory states that when policies are implemented and open to interpretation, social or human services workers who implement them determine outcomes as they use their discretion to apply the policies (Lipsky, 2010). It describes the process people use to make decisions on the spot (Timberlake, 2016). Street-level bureaucracy theory applies to this study because the practitioners in the classroom must decide how to implement policy while working through discretion, accountability, and limited resources.

Street-level bureaucrats are people employed by the government who share several characteristics. First, they are the connection between the government and the citizen. In this study, practitioners are the connection between the county school district and the students and families they serve. Second, they have significant discretion and independence in job decision-making. This study's findings indicate that a positive school culture, including allowing the teachers discretion ("trust in our teachers"), is a vital aspect of implementing evidence-based practices. Finally, they potentially have a tremendous impact on the lives of those they serve (Lipsky, 1969). Teachers function as street-level bureaucrats in their students' lives as they individualize instruction based on the environment of policies and procedure and through discretion to make an impact on students' lives. Because evidence-based practices are the practices determined to be most effective, they have the potential to cause positive and meaningful change, especially for the students most at risk (Slavin, 2002).

This study substantiated the idea developed in the literature that teachers are street-level bureaucrats. It supported this idea through the development of the five themes of collaboration,

environment, expectations, individualization, and training. This section will review the study's themes and support street-level bureaucracy theory as the theoretical framework for this study.

Collaboration involves knowing the stakeholders, building relationships, having open dialogue, talking, and learning through peer observations. Due to time and resource limitations, practitioners often consult with each other to determine how to meet student needs. Teachers are deeply influenced by the held values and norms of the profession (Timberlake, 2016). Their shared ideals and commitment (Evans, 2010) and practitioner reflection, including open discussion about normative judgments (Brodkin, 2012) with their peers and supervisors, guide discretion amongst limited resources, resulting in decisions that are practical and fair (Maynard-Moody & Musheno, 2012).

Environment or school culture includes the policies and norms which influence interactions. Public schools demonstrate the characteristics of bureaucracies through the rules and procedures that guide decisions, create predictability, maintain stability in work outcomes (Scott & Davis, 2007), and serve the public as a distributor of federal resources (Brodkin, 2003; Lipsky, 2010). This study's participants agreed that a school culture for successful implementation of evidence-based practices is based on a growth mindset with efficacy, support, discernment, feedback, accountability, and open discussion as foundational aspects, which allows members to be flexible, creative, and feel supported even when making mistakes. Discretion is the extent of freedom a person has within a specific context (Evans, 2010). According to self-determination theory (Deci & Ryan, 2004), motivation is based on three psychological needs: competence, relatedness, and autonomy. Autonomy and discretion are vital parts of the motivation to act for the street-level bureaucrat. The level of freedom street-level bureaucrats experience and a good relationship with their supervisor allow them more flexibility

with policy and client meaningfulness (Brehm & Hamilton, 1996; Prottas, 1979; Tummers & Bekkers, 2014). Participants expressed the importance of the relationship to administration and open dialogue culture as an essential factor in implementing evidence-based practices.

Expectations are also part of the school culture. Expectations include the standards and curriculum for learning, the discernment to prioritize and balance various needs, and the assessments used to measure student learning. According to the research, practitioners use discretion to decide how those policies are implemented (Lipsky, 2010). All the participants discussed their ability to meet student needs, which can be considered a potential discretion (Tummers & Bekkers, 2014). Discretion can increase the meaningfulness of a policy for clients (Palumbo et al., 1984) and allow teachers to meet student needs better. To make decisions when confronted with a complex problem in a changing environment, street-level bureaucrats will develop strategies to make the task easier (Lipsky, 1969). These simplifications and routines allow teachers to make quick decisions and accomplish the expectations of their jobs more efficiently while possibly freeing up limited resources such as time, reducing anxiety regarding the decision, and limiting tensions with students and parents (Lipsky, 1969).

Individualization allows teachers to meet student needs and see them as a whole person, not just learners. Educators function as street-level bureaucrats when they serve students with an assortment of needs and strengths while possessing fewer resources than they need to do the job (Timberlake, 2014). Teachers need to be able to implement practices into the classroom's current processes, which includes enough time to make informed professional decisions (Brodkin, 2012).

Training is another theme developed through this study, which supports teachers as street-level bureaucrats. Street-level bureaucrats are tasked with prioritizing policies' implementation (Brodkin, 1997; Maynard-Moody & Musheno, 2012; Maynard-Moody &

Portillo, 2010; Tummers & Bekkers, 2014). Teachers as street-level bureaucrats must meet student needs through obtaining the knowledge to identify evidence-based practices and developing processes to prioritize implementation. They need to develop skills in using data-driven instruction and remaining current on evidence-based practices. This study indicates that counties can create a culture of growth by (a) filtering down evidence-based practices, (b) providing professional development training, and (c) providing planning time in which teachers can use discretion to develop processes to implement them in their classroom. Counties need to provide continued support through coaching, peer observations, classroom application, and feedback for teachers.

This study was able to shed light on street-level bureaucrats by revealing the themes and their contributing factors as vital aspects of the needs and challenges that practitioner's face as street-level bureaucrats. The policy is enacted in the classroom during the teacher's daily work, and that is where access to evidence-based practices must happen. Understanding how discretion, accountability, and limited resources impact special educators as they act in the role of street-level bureaucrats in the natural environment may provide new insights into teacher perception of the decision-making process for implementing evidence-based practices.

Empirical Foundation

Few studies have been conducted on practitioners' perceptions regarding the factors that impact implementing evidence-based practices in special education classrooms. Nevertheless, there is increased accountability for using evidence-based practices to improve student outcomes. As requirements increase, so do the demands that evidence-based practices be implemented in special education classrooms. There is a need to examine what makes implementation successful (Dorn, 2010). However, little empirical evidence exists regarding special education teachers'

perceptions of the factors that influence this process. There is a need to facilitate the implementation of evidence-based practices (Greenway et al., 2013; Greenwood & Abbott, 2001; Gunter & Brady, 1984; Odom, 2009; Vaughn et al., 1998) to improve student outcomes for this population; therefore, gaining an understanding of the practitioner's perspectives is valuable. With the view that educators are street-level bureaucrats, practitioners are the people who implement policies and reforms. Due to limited time, materials, and training, these reforms are not implemented with fidelity across organizations.

The findings of several studies related to the information that was gained in this study have been considered. Teachers consider organizational limitations and the value of resources when implementing evidence-based practices (Greenway et al., 2013), specifically concerning student need, even when under pressure to implement a specific policy (Boardman et al., 2005). Cavendish et al. (2020) found that teachers consider student needs and training in implementation. Also, they cite the benefit of collaboration and partnerships with all stakeholders. Swain and Hagaman (2020) found a need for professional development regarding efficient practices for implementing data-based decision-making and continued support for the teacher. The current study confirmed Fixsen et al.'s (2005) findings, which supported switching from a process that relies on practitioners' understanding to an institutional practice that relies on implementation components as the core ideals. The current research study corroborated the current literature base while contributing to the novel concept of specific factors that impact the implementation of evidence-based practices. These specific factors include collaboration, environment, expectations, individualization, and training.

Theme 1: Collaboration. As reviewed in Chapter Two, the current literature base revealed that collaboration with stakeholders is vital to the implementation of evidence-based

practices in the classroom. Boardman et al. (2005) found that even when under pressure to implement a policy, knowing student need was more important to practitioners. According to participants, knowing the students and the families allows a deeper level of collaboration and quality of information when identifying which evidence-based practices will meet student needs. Cavendish et al. (2020) found that collaboration with stakeholders was one of the keys to implementing policies. Collaboration with stakeholders increases implementation, and it is key to sustaining those practices (Fixsen et al., 2005).

The results of this study found that practitioners need to talk to students and to know their needs. They need to collaborate with peers and have open discussions with the administration and the community. Olson (2014) stated that teachers should agree on shared responsibilities and create a school culture of collaboration. The findings of this study revealed that the school culture at Central Combined School contributed to their ability to collaborate with stakeholders and use limited resources to meet student needs. Increasingly, students with disabilities are the co-responsibility of general and special education teachers (Boardman et al., 2005; McKenna, 1992), and general education teachers have more discretion regarding the implementation of evidence-based practices (Schulman, 2016). Collaboration is vital. Teachers talked about special education and general education teams working together to meet students' needs and the importance of open dialogue with the administration. All practitioners cited the value of building relationships with students and parents.

Participants shared that when in need, they would ask others what strategies worked for them. Administrators discussed the trust placed on the teachers and the need to build relationships. Peer observations were one method of collaboration cited by participants to gain ideas and build a “positive culture and collaboration.” Traditionally, many of the practices used

in special education has been based on history, cash value, tradition, bandwagon, testimonial evidence (Ysseldyke et al., 2000) and norms, personal experiences, and trusted opinions (Cook & Cook, 2013). The results of this study indicated that one of the resources that practitioners needed to implement evidence-based practices effectively was "time to talk" to their colleagues. As one of the participants stated, "We are our greatest resource."

Theme 2: Environment. A review of the literature from Chapter Two also revealed the school environment's importance on a practitioner's ability to implement evidence-based practices. Organizational constraints (Greenway et al., 2013), state standards (Schulman, 2016), and limited resources (Dorn, 2010) were all factors cited by participants that may affect the implementation of evidence-based practices in their classroom. A culture of positivity and growth fosters opportunities for new practices to be adopted. According to this study, the most significant asset concerning the school environment for implementing evidence-based practices was a positive culture. Participants defined a positive environment as flexible, creative, supportive, and allowing teachers the grace to make mistakes. Practitioners said that a positive environment allowed teachers to assess and adjust the methods of implementing evidence-based practices such as the one discussed by Danielson and Rosenquist (2014), knowing that they will receive support and grace.

In addition, this study found that a growth mindset is also an essential part of school culture for promoting evidence-based practices. Key characteristics of a growth mindset discussed by the participants and presented in the literature regarding implementing evidence-based practices include open discussions (Brodkin, 2012), teacher efficacy (Timberlake, 2014), support (Swain & Hagaman, 2020), freedom or discretion (Evans, 2010), and accountability (Spooner & Browder, 2015; Swain & Hagaman, 2020). Discretion allowed the practitioner to

meet students' needs and provided more motivation when implementing policies from the top-down (Meyers & Vorsanger, 2003; Sandfort, 2000). Participants also cited the need for practices once implemented to become expected parts of the school's culture (Fixsen et al., 2005).

Theme 3: Expectations. While standards and curriculum are foundational expectations of the classroom (Schulman, 2016), participants of this study also stated that they needed information when choosing evidence-based practices. Teachers must have time to plan the curriculum, to meet student needs, and to develop a curriculum map to ensure that all the topics are covered (Oliver, 2016). Expectations for special education students are increasing (Timberlake, 2016), including balancing academic skills with functional skills (Spooner & Browder, 2015) and alternative assessment (Modenbach, 2015). Participants said that teachers needed to know what they are trying to accomplish when they adopt an evidence-based practice; however, time is limited. This finding agreed with the literature, which stated that special education teachers continue to report time constraints as a significant roadblock to data-based decision making. One reason for this continued perception is the growth of educational responsibilities and workload expectations, which have continued to grow over the last 20 years (Swain & Hagaman, 2020). This finding is consistent with research, which indicated that novice special education teachers often report unmanageable workloads (Bettini et al., 2017).

This research also indicated that practitioners also need to know what practices are evidence-based (Cook et al., 2015). Participants of this study stated that while teachers can spend time researching, time is limited (Swain & Hagaman, 2020). Due to limited time and increasing responsibilities, this study found that districts play a vital role in implementing evidence-based practices (Kleinert et al., 2015) and creating a culture that promotes sustainability (Boardman et al., 2005). Teachers need to develop the skills of prioritizing

demands (Ryan et al., 2016) and creating data-driven instruction (Swain & Hagaman, 2020). A good evidence-based curriculum can help practitioners (Siuty et al., 2018), which is consistent with the findings of this research, which indicated that using an evidence-based curriculum is a factor in implementing these practices. This study furthers this idea by explaining that teachers consider how a new evidence-based practice will integrate into their existing priorities. They need planning time to accomplish this task. If a teacher does not think a practice will be manageable or effective, they will resist implementing it (Boardman et al., 2005).

Theme 4: Individualization. A review of the literature from Chapter Two addressed the need to consider individualization issues as a factor that impacted evidence-based practices and is supported by the results of this study. The needs of the student (Boardman et al., 2005; Cavendish et al., 2020; Knight et al., 2019; Schulman, 2016; Timberlake, 2016) were the most referenced factor regarding the use of evidence-based practices. Teachers need to know the needs of individual students to address any issues in learning with appropriate strategies and to know and understand what works effectively (Mostert, 2000). Participants cited the importance of gaining information about their background and what works for students to fit instruction to them as a vital factor when considering implementing evidence-based practice. Participants mentioned that gaining background knowledge on a student from the IEP and other paperwork (Schulman, 2016) and collecting data through assessments (Jenkins et al., 2017; Stecker, 2017) are important ways to gain information about a student when deciding on strategies to use in his or her learning. This study also expanded on the literature by including spending time with the student and building relationships as critical factors in determining student need. One of the skills that allowed practitioners to individualize instruction and implement evidence-based practices in the classroom is building relationships with the student and seeing him or her as a

whole person, not just a learner. This study found that teachers need time to spend with students and delve into the paperwork and data to design effective instruction.

Another issue of individualization mentioned both in the literature and as a result of this study is the teacher's characteristics (Knight et al., 2019; Schulman, 2016). A teacher's ability to assess their strengths and implement strategies that maximize their effectiveness is part of the system developed by Cain et al. (2019), which includes bounded decision making and organized learning to help close the research-to-practice gap. Participants felt that this was more of a factor in the general education classroom than special education, which is individualized to the student. Part of this process is learning about evidence-based practice and applying it to their classroom and their students. Not every evidence-based practice will work for every learner (Fuchs et al., 2014; Odom et al., 2005). In special education, particularly, specific evidence-based practices have not worked for those students, and new strategies need to be considered (Fuchs et al., 2014). Two participants in this study described their intervention process as similar to the one cited by Danielson and Rosenquist (2014). It includes five steps: 1) implement an evidence-based practice, 2) progress monitoring data, 3) diagnostic assessment, 4) adapt the intervention, 5) evaluate and modify again or try something new. These participants said that they needed planning time and training when individualizing instruction. Effectiveness for students' learning is a vital factor that teachers consider (Boardman et al., 2005). Research shows that lower-achieving students can narrow the achievement gap when teachers base decisions on positive student outcomes (Deno, 1985, 2003; Fuchs, 2004). This study found that successful practitioners knew how to fit a practice into their current classroom fabric and prioritized current needs.

Practitioners need to know their students' needs and what works for them to learn. They need to have the skill of seeing the whole child and using data to drive instruction and effectively apply evidence-based practices. Due to the limited resources, time, and money as well as other resources and multiple policies, street-level bureaucrats are tasked with prioritizing implementation (Brodkin, 1997; Maynard-Moody & Musheno, 2012; Maynard-Moody & Portillo, 2010; Tummers & Bekkers, 2014). This study found that practitioners need time to develop relationships with their students, provide assessments, analyze data, and learn new skills. Teachers have reported time as a constraint to using data-driven instruction (Swain & Hagaman, 2020). Therefore, it is relevant that participants of this study cited the need for time, materials, and finances as an essential factor in the implementation of evidence-based practices and the ability to individualize instruction.

Theme 5: Training. Cavendish et al. (2020) found that practitioners need more training to implement standards and policies geared to special education; the lack of training impacted the distribution of supports and services regarding implementing evidence-based practices. Effective professional development for special education teachers is developing regarding the needs which must be met for teachers to access and implement evidence-based practices (Boardman et al., 2005; Crockett, 2004; Klingner et al., 1999, 2004). Some of the knowledge, skills, and resources for successful implementation must come from the teachers. However, this study found that for implementation to be sustained, the focus must include all stakeholders. Fixsen et al. (2005) called it a "systematic institutional process" and said that there is a need to establish the implementation of evidence-based practices as a core value of the institution. The findings of this study agreed with the literature in Chapter Two regarding training as a critical factor in the implementation of evidence-based practices. Practitioners need to know which

practices are evidence-based, and there is some confusion as to what is and what is not an evidence-based practice (Cook et al., 2015). Participants of this study discussed collaborating with colleagues as a time-efficient method of learning about methods in the classroom. However, they were not confident that those practices were evidence-based. They cited time as an issue regarding their research. They stated that counties could streamline that process by testing evidence-based practices and releasing reliable practices to the teachers. Counties have access to school-wide data, which can guide and prioritize needs within the school and district. The training environment should monitor the current development of evidence-based practices (Swain & Hagaman, 2020). When teachers are expected to do the research, they need time to practice scholarship as part of their day.

Training should focus on using evidence-based practices in the classroom, including using data from formative assessments. Participants stated that they needed professional development to let them know about pertinent evidence-based practices (Swain & Hagaman, 2020). Participants also stated they needed planning time to figure out how the new practice best fits their current schedules and priorities. Cavendish et al. (2020) discussed the importance of having the opportunity to see the practice in the classroom and receive feedback as practitioners implement the practice with their students. This study agrees with their findings and found that practitioners need information on evidence-based practices, planning time, observations, and feedback as part of a well-rounded training program focused on implementing evidence-based practices.

Based on school need and filtered down from the county, this study agreed that relevant practices should be presented during professional development time and be accompanied by time for practitioners to figure out how the practice fits into their classroom and priorities by

providing teachers planning time. This method increases the chances that the strategy will be sustainable. Practices must work for their students, be engaging and motivating, practical, and easy to implement. In addition, teachers need access to professional training with classroom demonstrations (Boardman et al., 2005). Teachers should have the opportunity to watch coaches or a peer implement the strategy and then be observed implementing it with their students (Olson, 2014). They should be supported with feedback, further instruction, and provided time to reflect and adjust the process. Research supports the idea of continued support rather than a present-and-place method. Administrators train teachers and hope they implement the classroom practices (Stokes & Baer, 1977). Unfortunately, this is often ineffective (Joyce & Showers, 2002). According to Swain and Hagaman (2020), even after 20 years of research, there is some evidence that teachers have trouble implementing CBM, a critical evidence-based practice, effectively or consistently. Rotter (2014) found that more than half of the special education teachers in their study used grades rather than CBM to determine if IEP goals had been met. Teachers may think they understand progress monitoring but may not adequately understand it to implement it with fidelity (Hellrung & Hartig, 2013; Stecker, 2017). All of these issues can be addressed through training, follow up, and continued support. Fixsen et al. (2005) provided six core implementation components for implementing evidence-based practices, including (a) staff selection, (b) preservice and in-service training, (c) ongoing consultation and coaching, (d) evaluation, (e) facilitative administrative support, and (f) systems interventions. In general, Fixsen et al. (2005) supported switching from a process that relies on practitioners' understanding to an institutional practice that relies on implementation components as the core ideals. This study agreed with those findings. Substantial administrative support, mentoring,

collaboration, coaching, ongoing professional development, and access to resources are vital to implementing new practices within schools (Cavendish et al., 2020; Chitiyo & May, 2018).

Implications

This study expanded the understanding of practitioners' perspectives in implementing evidence-based practices in special education classrooms. It will benefit researchers because it will illuminate teachers' perceptions, and it will help the administration by revealing areas of support to remove barriers to implementation. There are both theoretical, empirical and practical implications.

Theoretical

This study shed light on street-level bureaucracy theory by revealing the themes of collaboration, environment, expectations, individualization, and training as vital aspects of the needs and challenges that practitioners face as street-level bureaucrats. The policy is enacted in the classroom during a teacher's daily work, and that is where access to evidence-based practices must happen. Understanding how discretion, accountability, and limited resources impact special educators as they act in the role of street-level bureaucrats in the natural environment provided new insights into teacher perception of the decision-making process for implementing evidence-based practices through the themes of collaboration, environment, expectations, individualization, and training.

Empirical and Practical

The implications of this study's empirical and practical results are significant for paraprofessionals, teachers, and administrators because the study revealed factors that impact the implementation of evidence-based practices. Educators work with limited resources (Lipsky, 1969) and top-down policies (Evans, 2010). Additionally, there is a gap in the research

describing why many of the published research practices have not been implemented in the classroom (Boardman et al., 2005).

With the view that educators are street-level bureaucrats, practitioners are the people who implement policies and reforms. Due to limited time, materials, and training, these reforms are not implemented with fidelity across organizations (Carnine, 1997). There is a need to examine what makes implementation successful (Dorn, 2010). The findings of several studies related to the information gained in this study are included. The decision-making process is complicated (Greenway et al., 2013) and varies based on their roles (Schulman, 2016). Teachers consider organizational limitations and the value of resources when implementing evidence-based practices (Greenway et al., 2013), specifically in relation to student need, even when under pressure to implement a specific policy (Boardman et al., 2005). Cavendish et al. (2020) found that teachers consider student needs and training in the area of implementation. In addition, they cite the benefit of collaboration and partnerships with all stakeholders. Swain and Hagaman (2020) found a need for professional development regarding efficient practices for implementing data-based decision-making and continued support for the teacher. This study examined the factors that impact practitioners' perceptions when implementing evidence-based practices and resulted in similar themes of collaboration, environment, expectations individualization, and training. This research added to the body of knowledge regarding practitioners as street-level bureaucrats by revealing which resources of time, materials, and training practitioners find helpful in implementing evidence-based practices.

This study expanded the understanding of practitioners' perspectives in their work as street-level bureaucrats in implementing evidence-based practices in special education classrooms. In addition, the results of this research are essential to the teachers and

administrators of Central Combined School because they revealed insights regarding current practice. In addition, it revealed possible paths of action for better evidence-based practice implementation.

Teachers. The teacher may benefit from all five of the themes illuminated in this study. The perspective of special education teachers regarding the pressures and decisions they make day to day in the classroom was revealed through the themes developed from this study. Teachers gained an understanding of the place of collaboration with all stakeholders in the process of implementing evidence-based practices. They may prioritize developing an open and positive environment where they provide ideas, support, and grace for colleagues. This study may help them understand the role of the various expectations that they face and the importance of prioritizing and creating routines that will help them individualize instruction and meet student needs. It has also revealed the district's role in researching and providing support through training for teachers to continue to grow.

Administration. By revealing areas of support to remove barriers of implementation, administrators may benefit from all five of the themes revealed in this study. Administrators can work as a liaison between the teachers and the district and provide time to collaborate with all stakeholders. They can create an open environment that allows teachers to try new techniques without fear of failure and provides guidance regarding how to improve. Administrators can help teachers prioritize expectations and develop routines that allow them to use data-driven decision making to individualize instruction and meet student needs. They can accomplish all these things by researching current practices and providing training and coaching to teachers to implement them into the practices and routines they have developed in their classroom.

Researchers. This study was able to help identify the stakeholders involved in narrowing the research-to-practice gap. The goal for researchers is to gain further understanding. Nevertheless, understanding is useless unless the application accompanies it. From this research, it is clear that school districts are stakeholders in implementing research in the classroom. Researchers may consider partnering with districts and developing professional development for their staff.

Training institutions. Training institutions for teachers should prioritize the skills of collaboration and prioritization. They should teach teachers how to prioritize different expectations and use data to drive educational decision making. They should use peer observation and coaching methods to help teachers gain familiarity with practices commonly used in districts to provide support.

Delimitations and Limitations

Qualitative research has intrinsic limitations as researchers seek to understand individuals and give them a voice. Because this was an single qualitative instrumental case study, it was limited to the practitioners from the school. This limitation led to a small sample size. The participants were also self-reporting and provided insights through interviews, focus groups, and documents. There was also a lack of diversity in the sample size. Among the 11 participants, one was African American, and 10 were Caucasian. It did not appear that race was a factor, but it is a limitation. Also, while the research showed a difference in the special education teacher's role regarding factors that impacted decision-making and environment, only two of the participants worked in the adaptive environment.

Delimitations to this study are comprised of boundaries set by the researcher, including participant criteria. Because the purpose of this study was to reveal the factors that affected the

implementation of evidence-based practices in special education classrooms at a specific school, the participants were limited to practitioners from that school. In addition, the focus on special education further limited the participants. Therefore, results cannot be transferred to practitioners from another school or practitioners who do not work with special education students. Practitioners were self-reporting. It is acknowledged that the current study participants may not fully disclose their honest perceptions of the factors that impact the implementation of evidence-based practices in special education. Some participants may not express themselves fully due to concerns about reactions, especially among supervisors, to their perceptions and beliefs. All participants were volunteers, which could indicate a predetermined agenda.

Researcher bias is another limitation of this study. I am currently employed at this school as a special education teacher and work directly with the participants in this study. I made every effort to remove bias from interfering with participant interviews by remaining as neutral as possible during my interactions with participants and creating a comfortable environment for open and honest responses. Generalizability is limited in all case studies (Yin, 2018). In addition, this study is limited by the noted limitation and delimitations included in this section.

Recommendations for Future Research

This single qualitative instrumental case study provided data regarding the factors that impacted implementing evidence-based practices in the special education classroom. Along with adding to the current body of literature on the factors that impact the implementation of evidence-based practices for special education practitioners, the current study also implied recommendations for future research. This study focused on the factors that impacted implementing evidence-based practices for practitioners in the special education classroom. Future research could focus specifically on the special education teachers. This might reveal

more in-depth information regarding the expectations and resources teachers face. Future research could also expand on these findings by conducting a single qualitative instrumental case study in a school district to see if perceptions hold across a greater number of participants. The research could limit the focus factors that impact evidence-based practices in the adaptive classroom to understand further the factors impacting adaptive teachers. Future research could be done in a different geographic location or with populations more urban than those included in the current study.

Future quantitative research is also recommended. It is recommended that the relationship between district support and implementation of evidence-based practices also be studied. Does a priority in professional development, planning time, peer observations, and coaching result in better implementation rates for evidence-based practices? Is the implementation of those evidence-based practices sustainable? Are they sustainable? How long do practitioners continue to use the evidence-based practices once they have implemented them?

Summary

This study aimed to explore the factors that impact implementing evidence-based practices in the special education classroom. Identifying these factors is essential as evidence-based practices are the practices determined to be most effective, and they have the potential to cause positive and meaningful change, especially for the students most at risk (Slavin, 2002). Since there is a gap in the research describing why many of the published research practices have not been implemented in the classroom (Boardman et al., 2005), it was crucial to examine these factors.

This study's findings provided five themes to assist in identifying these factors, including collaboration, environment, expectations, individualization, and training. Of the five themes, the

environment was the most notable. The theme at Central Combined School during the time of the study was "Together we can." Creating an environment where all stakeholders feel comfortable to express their concerns, discuss resources, and try new practices is vital for all the other factors. If practitioners do not feel supported, they will be less likely to collaborate with their peers, parents, or administration. They will have difficulty finding balance with expectations and individualizing instruction for students. They will not be willing to implement the training they receive, preferring to stick with what they know rather than risk failing. The current study revealed that substantial administrative support, mentoring, collaboration, coaching, ongoing professional development, and access to resources were vital factors to implementing new practices within schools (Cavendish et al., 2020; Chitiyo & May, 2018). However, they are part of a larger picture of the school environment, which is positive and holds evidence-based practices as a core idea (Fixsen, 2005).

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APPENDICES

Appendix A: IRB Approval Letter

1/18/2021 Mail - Swezey, Jolene Gail (School of Education) - Outlook

IRB-FY20-21-60 - Initial: Initial - Expedited

irb@liberty.edu <irb@liberty.edu>
Tue 10/20/2020 1:50 PM
To: Beam, Andrea (School of Education) <abeam@liberty.edu>; Swezey, Jolene Gail (School of Education) <jgswezey@liberty.edu>

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

2020-10-20

Jolene Swezey
Andrea Beam

Re: IRB Approval - IRB-FY20-21-60 PRACTITIONER PERCEPTION OF THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICES IN THE SPECIAL EDUCATION CLASSROOM: A CASE STUDY

Dear Jolene Swezey, Andrea Beam:

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the date of the IRB meeting at which the protocol was approved: 2020-10-20. If data collection proceeds past one year, or if you make modifications in the methodology as it pertains to human subjects, you must submit an appropriate update submission to the IRB.
These submissions can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your stamped consent form can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B: Participant Recruitment Email

Dear Co-worker:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. in Special Education. The purpose of my research is to better understand the use of evidence-based practices by special education practitioners, and I am writing to invite eligible participants to join my study.

Participants must teach at [redacted] and may be paraprofessionals, teachers, or administration. •Teachers will have to teach or co-teach special education classes. Paraprofessionals need to work with special education students, and administrators have to supervise special education teachers. If willing, you will be asked to participate in an interview (either in person or via google meets) (one hour) and a focus group (one hour) via google meets. Names and other identifying information will be requested as part of this study, but the information will remain confidential. The researcher will review the shared documents on the google drive and request permission to use them in the study. In addition, the researcher may request other documents as they relate to the collected data.

In order to participate, please contact me via [redacted] for more information and to schedule an interview.

A consent document is attached to this email. The consent document contains additional information about my research. If you choose to participate, please sign the consent document and return it to me at the time of the interview.

Participants will receive a $20 Visa gift card.

Sincerely,

Jolene Swezey
Special Education Teacher

Appendix C: Participant Consent Form

Title of the Project: PRACTITIONER PERCEPTION OF THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICES IN THE SPECIAL EDUCATION CLASSROOM: A CASE STUDY
Principal Investigator: Jolene Swezey, Graduate Student, Liberty University

Invitation to be Part of a Research Study
You are invited to participate in a research study. In order to participate, you must be a practitioner teacher, paraprofessional or administrator) employed at [redacted]
Taking part in this research project is voluntary.

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

What is the study about, and why is it being done?
The purpose of the study is to identify factors that inform the decision-making process of 10 special education practitioners for the implementation of evidence-based practices in the classroom at [redacted]

What will happen if you take part in this study?
If you agree to be in this study, I would ask you to do the following things:
1. Participate in a recorded interview that will take approximately one hour.
2. Participate in a recorded focus group that will take approximately one hour.
3. Provide any related documentation for your class, such as lesson plans, class syllabus.

How could you or others benefit from this study?
Benefits to society include a better understanding of the research-to-practice gap and factors that can be addressed to improve practice. In addition, this study will promote teamwork in our department.

What risks might you experience from being in this study?
The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

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

- Participant responses will be kept confidential through the use of pseudonyms.

Interviews will be conducted in a location where others will not easily overhear the conversation.

- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

- Interviews and focus groups will be recorded and transcribed. Recordings will be stored on a password-locked computer for three years and then erased. Only the researcher will have access to these recordings.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.

How will you be compensated for being part of the study?
Participants will be compensated for participating in this study with a $50 dollar Visa gift card. The gift card will be provided after the participant has completed the interview and will not be returned if the participant decides not to continue with the study.

Is study participation voluntary?
Participation in this study is voluntary. Your decision about whether to participate will not affect your current or future relations with Liberty University or Campbell County School District. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?
If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?
The researcher conducting this study is Jolene Swezey. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [redacted]. You may also contact the researcher's faculty sponsor, Dr. Beam, at abeam@liberty.edu.

Whom do you contact if you have questions about your rights as a research participant?
If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu

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

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

0 The researcher has my permission to audio and video record me as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

Appendix D: Interview Protocols

Interview Protocols

Introduction

- Thank you for agreeing to help us with this project.
- The interview should take about an hour.
- Did you receive the list of evidence gaps that I e-mailed?
- Let me tell you a little bit about this project. The purpose of this qualitative case study is to identify factors that inform the decision-making process of special education practitioners for the implementation of evidence-based practices in the classroom. There is a research-to-practice gap for special education teachers, and this study seeks a further understanding of the factors that influence the use of evidence-based practices in the classroom. The central research question is How do special education teachers describe their decision-making process when implementing evidence-based practices in the classroom?
- I am aiming to recruit another 10 or more individuals to help us with this project who represent practitioners in special education classrooms.
- I know that there are a lot of research needs and questions related to the use of evidence-based practices in the classroom
- Before we jump into specific research questions, can you tell me a little bit about yourself and any research you have been involved with on this topic or the level of familiarity you have with this topic.

Interview Questions

1. Please describe your teaching experience and your association with [Central Combined School]. How long you have been connected with the institution?
2. How would you define evidence-based practices?
3. What evidence-based practices do you use in your classroom?
4. How do you, as an educator, learn about evidence-based practices?
5. How do you know if a strategy you are using is evidence-based?
6. What are the most important factors to consider when deciding how to teach content?
7. What steps do you take when you notice a problem in your classroom?
8. Please provide a few examples of the role evidence-based practices play in your classroom?
9. What role should evidence-based practices play in teaching and learning?
10. What strategies do you use for implementing evidence-based practices?
11. What would help you implement evidence-based practices in your classroom?
12. How do special education practitioners make decisions about what practices and policies to use?
13. What factors shape your interpretations and actions?
14. What factors might keep you from using evidence-based practices to solve problems in your classroom?
15. What else would you like to add?

Conclusions and wrap-up

Before we wrap things up and talk about next steps, are there any last comments you have regarding this area of research?

As I mentioned earlier, we are planning to speak with 10 or more individuals conducting research or practicing in this area. From that group we will be selecting members for a focus group. I would also like to request your lesson plans and syllabus for your class. In addition, please include any other documentation that you believe will shed light on the factors that influence the use of evidence-based practices in the special education classroom.

Thank you for your participation.

Appendix E: Focus Group Protocols

Focus Group Protocols
Introduction

- Thank you for agreeing to help us with this project.
- As you know from your participation in the interviews, the purpose of this qualitative case study is to identify factors that inform the decision-making process of special education practitioners for the implementation of evidence-based practices in the classroom. There is a research-to-practice gap for special education teachers, and this study seeks a further understanding of the factors that influence the use of evidence-based practices in the classroom. The central research question is How do special education teachers describe their decision-making process when implementing evidence-based practices in the classroom?
- Thank you for joining this focus group. I am going to post a few questions. Please answer them and respond to your colleagues as well. I have chosen this format so we can all see each other's answers. I really appreciate your participation.

I've included all the participants from my study. [redacted] I am so grateful for your participation. Please interact with your colleagues regarding these questions.

I am going to do the questions on different posts so that all the responses will be grouped together. There will be five in total.

Focus Group Questions:

1. Based on your perception, how do SPED teachers and general education teachers view Evidence Based Practices differently or the same?
2. Based on your perception, what do teachers need to know to implement Evidence Based Practice in the classroom?
3. Based on your perception, what skills do teachers need to implement Evidence Based Practices in the classroom?
4. Based on your perceptions, what environment do teacher's need to feel comfortable making changes in their classrooms, including the use of evidence-based practices?
5. Describe a conducive environment for implementing evidence-based practices in the classroom. what can the County and administration do to encourage teachers to use evidence-based practices?

Conclusions and wrap-up

- Before we wrap things up and talk about next steps, are there any last comments you have regarding this area of research?
- Thank you for your participation.