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Teachers' Perspectives of Using Assistive Technology when Writing Individual Education Plans with Parents

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This is to certify that the doctoral dissertation by

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Abstract

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MA, California Baptist University, 2013

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Teachers of children with disabilities are not providing consistent opportunities for

assistive technology (AT) services, even when mandated to do so. This phenomenon

contributes to children with disabilities not receiving services that help their educational

growth and development. The purpose of this study was to explore perspectives of K-2

teachers of children with disabilities in a rural Western school district about using AT

when writing individualized education plans (IEPs) with parents. The conceptual

frameworks for this study were Piaget's constructivism theory and Bandura's social

cognitive theory. Eleven K-2 teachers of children with disabilities participated in

semistructured recorded interviews. Data were analyzed using coding and categories to

identify emerging themes. Results indicated participants viewed AT as a useful and

comfortable service to use, assessments benefited performance while access to and

availability of AT slowed IEP processes. IEP decisions based on assessments make

monitoring progress of work of children with disabilities easier when working with

parents, and educating and building relationships with parents helps to address challenges

and barriers to AT implementation due to their value with IEP teams. Implications for

positive social change include development of programs by administrators and experts

that support collaboration among teachers and parents involving AT implementation and

collaborative support that may also improve decisions when facing challenges and

barriers to AT implementation with IEPs and monitoring progress of children with

disabilities who use AT.

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Dedication

To my wife, Monica, you are my inspiration, my strength; I love you tremendously! To my Mom, thank you for never giving up on me even through the tough times. You never stopped believing that I could become more. To my daughters, Yvonne, LaKreisha, and Analise, and my son-in-law Israel thank you for your support. To my niece Nicole, you are awesome. Connie and Vicki thank you for knowing when I needed a laugh. To all of my grandchildren, this is for you. To the rest of my family, thank you for everything. Brian, TJ, those long talks made a difference.

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

Assistive technology (AT) is an important service for children with disabilities that teachers can include in individual education plans (IEP). Its main purpose is to help children with disabilities by compensating in the areas of their learning where they face limitations due to their disability (Kimm et al., 2020). Adaptations that can be offered through AT can be a benefit to both teachers and children with disabilities in classrooms to improve their learning and social development (Atanga et al., 2020; Kimm et al., 2020).

While intended by the Individuals with Disabilities Education Act (IDEA) to offer modifications for learning improvement for children with disabilities, not all teachers currently use AT in their classrooms (Atanga et al., 2020). Rather than making AT part of individualized education plans (IEPs) to increase learning capabilities of children with disabilities, teachers of children with disabilities are not consistently including AT when writing IEPs with parents for students who need it, even when mandated to do so (Arouri et al., 2020). Furthermore, there is insufficient information regarding how perspectives of using AT determines inclusion when writing IEPs with parents.

The purpose of this study is to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. Results of this study add to the limited body of literature regarding this topic. Additionally, results of this study should provide information on possible strategies for using AT and more consistent inclusion when writing IEPs with parents. This study has the potential to lead to positive social change by addressing supports and collaborative partnerships between teachers of

children with disabilities and parents regarding use of AT with IEPs. Chapter 1 includes

background information, the problem statement, and research questions. In addition, I

address the conceptual framework, nature of the study, definitions of key terms,

assumptions, scope and delimitations, limitations, and significance of the study.

Background

Learning about teachers' perspectives is essential because the IDEA ensures all

students with disabilities must receive a free and appropriate education (FAPE) which

requires services they qualify for to be added to their IEPs (Jenkins & Walker, 2021).

Thus, investigating what experiences have shaped perspectives teachers developed

concerning AT is important in terms of learning what challenges have contributed to their

reluctance to make it part of IEPs.

The IDEA requires AT services must be a consideration that IEP teams address

when determining ways to increase learning capabilities of children with disabilities.

Challenges and barriers that teachers face are shaping their perspectives regarding the

value of AT implementation in IEPs. Perspectives that teachers have are important for

AT implementation for children with disabilities. Challenges contribute to why teachers

are not implementing AT as required (Emerling et al., 2021; Radici et al., 2019).

Teachers' abilities to move beyond perspectives of AT based on challenges they face is

necessary for IEP teams to ensure all considerations are being made for children with

disabilities.

Since 2015, AT has become a tool for children with disabilities. . When teachers

effectively and efficiently use AT in their classrooms, reading, vocabulary, and

communication skills improved, as did social engagement with peers (Bouck & Long, 2021; Marsh et al. 2021)..

Teachers face challenges in terms of knowing how to implement and use AT, affecting their ability to include AT in IEPs. A significant challenge teachers face is lack of AT training. Du and Lyublinskaya (2022) found lack of training influenced thought processes of teachers about students' capabilities involving using AT, which impacted implementation in classrooms. Teachers' inabilities to obtain training they needed for AT shaped how well students learned. , Ozcinar et al. (2020) found AT tools such as web 2.0 presented difficulties for teachers, even when they had sufficient knowledge about how to use them. Increasing training that teachers receive when it comes to AT provides opportunities for AT to be use more in IEPs for children with disabilities.

Al-Zboon (2020) indicated computer use, lack of training, and availability of technology were factors that created challenges in terms of implementation. Almuqayteeb (2021) indicated what determines whether AT is viewed as a facilitator or barrier in the learning environment is mainly types of method that are used to support students' needs. Differences in perspectives that international teachers have regarding AT use based on their experiences shows the complexity of this problem.

Researchers have addressed how AT benefits children with disabilities by raising levels of learning. Effective implementation of AT in classrooms by teachers of children with disabilities has led to improvements in reading and communication (Bouck & Long, 2021; Marsh et al., 2021). Challenges such as lack of training have contributed to

perspectives that teachers of children with disabilities have regarding the value of AT in classrooms (Demirok et al., 2019; Fernández-Batanero et al., 2022).

While there is research that discusses the value of AT and perspectives teachers of children with disabilities have when it comes to AT use in classrooms, there is a gap in literature regarding perspectives of teachers of children with disabilities about using AT when writing IEPs with parents. This gap in knowledge presents a need to learn more about this topic.

Problem Statement

The problem is that teachers of children with disabilities are not providing consistent opportunities for AT services, even when mandated to do so. This inconsistency in terms of implementation is in opposition to the IDEA of 2004which mandated use of AT as a service to improve social development and learning outcomes for children with disabilities.

While there has been a notable amount of research on perspectives teachers of children with disabilities regarding AT use, most information has involved inexperience with using certain types of AT, and lack of training, which has also been found to be an issue internationally . There is little research that discusses extent to which teachers are implementing AT in classrooms or their interest in using it. Because AT must be a consideration for children with disabilities in classrooms, more research is needed that explores perspectives teachers of children with disabilities have toward AT and its implementation.

Purpose of the Study

The purpose of this study was to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. I address types of decisions K-2 teachers of children with disabilities make regarding this topic. I sought to provide an understanding of factors that contribute to inconsistency of AT integration and implementation of services for children with disabilities with IEPs. Participants offered perspectives regarding their experiences writing IEPs with parents that may lead to more consistent AT use, important factors to be considered when writing IEPs with parents, and ways to address challenges involving AT use. Furthermore, I explored how participants addressed roles of parents when writing IEPs. Findings from this study may lead to positive social change by addressing collaborative partnerships between teachers of children with disabilities and parents regarding use of AT.

Research Questions

For this study, I developed two research questions:

RQ1: What are perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents?

RQ2: How do perspectives of K-2 teachers of children with disabilities regarding using AT affect decision-making processes when writing IEPs with parents?

Conceptual Framework

The conceptual frameworks that grounded this study were Piaget's constructivism theory and Bandura's social cognitive theory . The study was focused on perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents.

Constructivism involves how experiences shape understanding people have about their environment (Kretchmar, 2018; Pardjono, 2016). Constructivism served as a conceptual lens for this study to address perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents.

Bandura's social cognitive theory was used to explain how cognitive factors play a role in what gets introduced into environments. This conceptual framework supports the need for the study. Individuals form thoughts and opinions based on their interactions with people and environments (Bandura, 1986; Piaget, 2001) 2.

This conceptual framework was used to provide insights about how cognitive factors, environmental interactions, and teachers' individual beliefs shaped their perspectives of using AT when writing IEPs with parents. My goal was to gain a better understanding of factors which contribute to teachers of children with disabilities not providing consistent opportunities for AT services, even when mandated to do so, as well as consistent integration and implementation.

Nature of the Study

I used the basic qualitative design. This methodological design was used to gain an understanding of the social phenomena under study. The descriptive research design is traditionally used to provide insights regarding how individuals who are part of social phenomena gain and develop meaning from their experiences (Dunn & Moore, 2020). Researchers use the basic qualitative design to find meaning and understanding from a targeted group of individuals connected to social phenomena (Karadağ et al., 2021). I chose this approach based on research questions that I formed for this study, which

involved interpreting meanings and perspectives of participants and not statistical relationships.

For this study, I investigated teachers of children with disabilities who were not provided consistent opportunities for AT services, even when mandated to do so. This study involved exploring perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. Therefore, the basic qualitative design with interviews was used to gain practical knowledge. I planned to recruit 10 to 12 K-2 teachers of children with disabilities until saturation was reached for individual interviews. Data included responses to interview questions that involved perspectives of K-2 teachers of children with disabilities regarding using AT when writing IEPs with parents.

Acting as researcher will required addressing bias. One area where bias can be addressed is during the interview process. Participants were selected from flyers that were created and sent out to schools in a local area. To establish eligibility, convenience sampling was used to determine selection of participants. Also, to ensure bias was eliminated, a teacher with a Ph.D. in the field of education reviewed all interview questions for clarity. In addition, an expert panel reviewed all interview questions to determine their validity, as well as check findings for bias to maintain trustworthiness and accuracy of all responses . To address and reduce bias in samples and reporting of data, audit trails were conducted and used to further strengthen credibility and dependability of the study. Data were analyzed using coding methods to identify emerging themes.

Definitions

Assistive Technology (AT): Self-help devices that aid children and students with disabilities by compensating for limitations and/or deficits their disabilities may cause (Kimm et al., 2020).

Assumptions

In this study, I assumed participants identified and understood the importance of the study. I assumed all participants had an interest in using AT. I also assumed all participants provided opportunities for AT services in IEPs. I further assumed all participants were trained with using AT. My final assumption was that all participants who volunteered answered all questions truthfully. This assumption was based on the belief that there was a willingness from participants to aid in research.

Scope and Delimitations

This study was conducted with K-2 teachers of children with disabilities in the Lake Mountain School District (pseudonym). All participants in this study were teachers who had experience working with children with disabilities, taught kindergarten through second grade, had 3 or more years of classroom experience, had experience writing IEPs, and had working knowledge of AT classroom use.

I chose to address perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. I only studied K-2 teachers of children with disabilities in the early childhood education field. This area of interest was specifically chosen in large part due to my pursuit of a Ph.D. in Early Childhood Education; thus, I

had to choose teachers at this grade level. In addition, for this study, I chose a rural

western school district for easier access to my home and my work.

Limitations

Burkholder et al. (2016) described limitations as anything that can weaken the

study design or method. One potential limitation was the small sample size. Perspectives

from this sample of participants may not be reflective of the larger sample of K-2

teachers of children with disabilities in other states. I did not consider perspectives of

teachers of children without disabilities, parents, or students. Because of the COVID

pandemic and emergence of new variants, interviews were restricted to online which may

have led to limitations in terms of access to participants and data.

Significance

This study is significant in that it may fill a gap in literature by focusing

specifically on perspectives of K-2 teachers of children with disabilities about using AT

when writing IEPs with parents. Results of this study may provide information on

strategies for more consistent inclusion of AT for this population. Findings may also lead

to positive social change by addressing collaborative partnerships between teachers of

children with disabilities and parents regarding use of AT and IEPs.

Summary

Although AT can increase learning and social skills of children with disabilities

(Atanga et al., 2020), teachers are not consistently making AT implementation part of

IEP processes (Arouri et al., 2020). When used effectively, these are accommodations for

children with disabilities which limit their learning (Bjorn & Svensson, 2021; Kimm et

al., 2020; Radici et al., 2019). The IDEA mandates all children with disabilities who are receiving a FAPE qualify for services such as AT to be made part of IEPs.

Challenges play a role in teachers being reluctant to make AT part of IEPs. There is research that discusses perspectives teachers of children with disabilities have regarding AT use in the classroom, but there is a gap in research regarding this topic. This study will help fill that gap and potentially improve AT integration during IEP processes with parents. Chapter 2 includes a review of literature as well as the conceptual framework and key concepts and variables.

Chapter 2: Literature Review

AT is a service that is not always used in IEPs of children with disabilities. The purpose of this study was to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. The literature review includes information about the IDEA, AT's influence on learning, challenges teachers of children with disabilities face, and AT challenges in other countries. I also address the conceptual lens and research goals of the study. In addition, I also addresses the gap in literature regarding this topic.

This basic qualitative study involved addressing the following research questions:

RQ1: What are perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents?

RQ2: How do perspectives of K-2 teachers of children with disabilities regarding using AT affect decision-making processes when writing IEPs with parents?

While there is research regarding benefits of AT use in classroom environments, challenges faced by teachers of children with disabilities contribute to AT not being part of IEPs. There is little research regarding this topic.

In this chapter, I explain my literature search strategy as well as the Piaget's constructivism theory and Bandura's social cognitive theory. In addition, I synthesize literature regarding key concepts and variables.

Literature Search Strategy

Sources for this literature review came from peer-reviewed journal articles, books, and online databases that were accessible through the Walden University Library. I used

the following databases: Education Source, ERIC, SAGE Journals, Academic Search Complete, Thoreau, Google Scholar, and ProQuest. I examined sources that were essential in providing knowledge regarding perspectives of teachers of children with disabilities about using AT when writing IEPs with parents.

Keywords and phrases that were used to search databases were: *assistive technology*, *perceptions*, *teachers*, *children with disabilities*, *challenges and barriers*, *IDEA*, *decision-making*, *self-help devices*, *challenges with assistive technology integration*, *special education*, *learning disabilities*, *legislation, decision-making*, and *use of assistive technology by special education teachers.*

Conceptual Framework

The theories that grounded this study were Piaget's constructivism theory and Bandura's social cognitive theory. Constructivism involves how experiences people have shape their understanding of their environments (Kretchmar, 2018; Pardjono, 2016; Piaget, 2001). Bandura's social cognitive theory is used to explain how cognitive factors that are unique to individual interactions play a role in what gets introduced into their environment. These two theories served as conceptual lenses for this study to understand how challenges regarding AT influence decision-making processes for K-2 teachers of children with disabilities when writing IEPs with parents.

Cognitive Constructivism

One principle of Piaget's constructivism theory is cognitive constructivism. According to Piaget (2001), cognitive construction of individual learning is shaped by environmental interactions. Central to this theory is that learning is active and unique to

individuals. This means their understanding is based on previous knowledge only they have learned from their experiences. It is only when individuals have interactions or experiences in their environment can they begin to construct cognitive interpretations of encounters (Fostnot, 1996; Kretchmer, 2018; Pardjono, 2016).

Disequilibrium

According to Piaget (2001), central to construction of knowledge is the ability to remain in a state of equilibrium. New interactions and information that individuals struggle to understand creates a state of disequilibrium (Piaget, 2001). Individuals remain in this state until they can make modifications to information they have experienced. Essential to individuals regaining equilibrium when constructing knowledge is their ability to assimilate and make accommodations.

Assimilation

Assimilation is another key component of Piaget's constructivism theory. Piaget (2001) argued when faced with new information or interactions, assimilation is accomplished when individuals can make connections between new information and what they have previously learned. Key to this concept is the ability to take in new information with full understanding. When individuals can construct knowledge based on new interactions and information, modifications to learning become unnecessary (Block, 1982; Kretchmer, 2018; Padjono, 2016).

Accommodation

Accommodation according to Piaget's constructivism theory of knowledge development this principle works in contrast to assimilation. Accommodation takes place

when an individual makes changes to their construction of knowledge based on the complexity of new stimuli they are experiencing (Kretchmar, 2018; Pardjono, 2016; Piaget, 2001). To maintain equilibrium, an individual has to adjust their thinking to these complex experiences. Unlike assimilation, new interactions, and information do not connect to previous knowledge an individual has learned. These differences place the individual in the position of recognizing the need to construct new methods of knowledge development. When successful an individual can address the cognitive dissonance they experience from the complex interactions and experiences (Cahan, 1984; Kretchmer; Padjono; Piaget).

Adaptation

While assimilation and accommodation are the principles that are used to determine whether adjustments are needed in the construction of knowledge (Pardjono, 2016; Piaget, 2001), adaptation helps an individual to function in their environment (Kretchmar, 2018; Piaget). Adaptation refers to how an individual properly identifies whether changes need to take place in their construction of knowledge. This principle is what causes an individual to act. Adjustments made by an individual during this process will determine how well functionality is held within the environment. The ability to embrace new information or make the necessary modifications when needed in the construction of knowledge aids an individual in maintaining equilibrium (Pardjono; Piaget; Stevenson, 1962).

Application of Piaget's Constructivism Theory of Knowledge Development

Piaget's constructivism theory of knowledge development has been applied in previous research, especially in the field of special education and assistive technology. Al-Shammari et al. (2019), stated that Piaget's constructivism theory of knowledge development is an appropriate conceptual framework because teachers of children with disabilities learn through observation, interpretation, and adaptation that lead to their developing perspectives of their world. While exploring teachers' use of assistive technology for children with learning disabilities, Duhaney and Duhaney (2000) based their study on Piaget's constructivism theory of knowledge development and discovered that the training of teachers is key to maximizing learning. Also, Lei et al (2020) discussed how when applying accommodations based on Piaget's constructivism theory of knowledge development, changes teachers made in their scaffolding methods for their math students, led to their seeing improvements in the learning skills of their students. The use of AT for children with hearing disabilities at a special primary school in Namibia was explored, and Piaget's constructivism research was used to discover positive outcomes in mathematics learning.

Bandura's Social Cognitive Theory

Bandura's social cognitive theory explains how cognitive factors unique to an individual's interactions play a role in what gets introduced into their environment. While this theory could serve as the basis of the conceptual framework, I chose only to use it in connection with Piaget's constructivism theory of knowledge development. Also,

regarding this theory, I am only using reciprocal determinism as part of this conceptual framework.

Reciprocal Determinism

One principle of Bandura's social cognitive theory is reciprocal determinism. According to this principle, there are three factors personal, environmental, and behavioral that impact one another. At the heart of this theory is the notion that these three factors display a tendency to be dependent on each other. Personal choices that an individual makes can be seen as being influenced by their behavior and environmental interactions, however, due to reciprocity, a person's behavior and environmental interactions can also influence the type of personal choices an individual makes. This interlocking that takes place between personal, environmental, and behavioral factors demonstrates the role of interaction in our social learning (Bandura, 1978; Phillips & Orton, 1983). This theory will ground this study by exploring how the personal, environmental, and behaviors of K-2 teachers of children with disabilities connect to the decision-making process of AT usage when writing the IEP with parents.

One-Sided Determinism

A key principle of Bandura's social cognitive theory of reciprocal determinism (Bandura, 1986; Eun, 2019; Wulfert, 2019) is one-sided determinism (Bandura). This principle discusses how personal and environmental factors operate independently in determining the ways interactions influence an individual's personal choices or actions. In environmental determinism, an individual's surroundings or conditions play a more dominant role in the way choices are made. Whereas, in personal determinism,

perceptions created by an individual strongly influence their personal choices. This one-dimensional approach can be seen as problematic and unfulfilling when it comes to the way an individual interprets interactions they experience either personally or within their environment (Bandura). This principle will ground this study by exploring how personal or environmental interactions shape one-sided perspectives of K-2 teachers of children with disabilities that connect to the decision-making process of AT usage when writing the IEP with parents.

One-Sided Interactionism

Another key principle of Bandura's social cognitive theory of reciprocal determinism (Bandura, 1986; Eun, 2019; Wulfert, 2019) is one-sided interactionism (Bandura). According to this principle, environmental and personal factors do act in dependence on each other. Personal and environmental interactions an individual experience shapes their behavior, yet this behavior acts independently and is more in control. The controlling role that behaviors take in turn plays a stronger role in influencing the perspectives that an individual develops (Bandura). This principle will ground this study by exploring how the behaviors of K-2 teachers of children with disabilities connect to the decision-making process of AT usage when writing the IEP with parents.

Triadic Reciprocality

Triadic Reciprocality is another principle of Bandura's social cognitive theory of reciprocal determinism. Key to this principle is the notion that personal, environmental, cognitive, and behavioral collectively affect the outcomes of individuals. While each of

these factors acts as an influencer, there are no similarities among them. In addition, these factors also do not operate simultaneously in the way that they perform as influencers. Thus, being able to gain an understanding of how different interactions influence an individual's choices remains possible (Bandura; Lo Schiavo et al. 2019). This principle will ground this study by exploring how triadic factors K-2 teachers of children with disabilities experience connect to the decision-making process of AT usage when writing the IEP with parents.

Applications of Bandura's Social Cognitive Theory

Bandura's social cognitive theory of reciprocal determinism has been applied in previous research, especially in the field of education. According to Zang (2021) Bandura's Social Cognitive Theory, triadic reciprocality is an appropriate theoretical lens because it provides a description of the way personal, behavioral, and environmental interactions while acting independently, impacts the learning behavior of individuals. When investigating the correlations between self-efficacy and psychological anxiety of college English learners, Zeng et al. (2020) based their study on Bandura's social cognitive theory and learned that there were both significant and non-significant correlations in the way the educational environment impacted male and female students' behaviors. Also, Bandura's social cognitive theory was used in a study that focused on the improvement of the GPA and retention of first-year college students (Collings and Eaton, 2021), and it was discovered that differences in students' abilities and behaviors revealed a mixture of problems with psychological outcomes. University students' relationship between learning goal orientation and their academic performance was

explored using Bandura's social cognitive theory, and the results showed higher academic self-efficacy and more willingness to seek feedback (Lu et al., 2022).

This research study will benefit from the use of both Piaget's constructivism theory on knowledge development and Bandura's social cognitive theory of reciprocal determinism. In this study, I will explore the perspectives of K-2 Teachers of children with disabilities about using AT when writing the IEP with parents. Because Bandura's theory deals with the way personal, behavioral, and environmental interactions influence an individual's decision-making (Bandura, 1978, 1986, 2001), this is an appropriate conceptual framework to guide the research.

Key Concepts and Variables

IDEA

AT has become an important option for Teachers of children with disabilities, especially when writing an individual education plan (IEP)

(Chukwuemeka & Samaila, 2020; Kimm et al., 2020). While this is mainly due to modifications and safeguards provided in the Individuals with Disabilities Education Act (IDEA), this has created mandates that offer support for the education of children with disabilities (Levine, 2019; Lewis et al., 2021; West et al., 2023). Two of these mandates are free and appropriate public education (FAPE) and the IEP (Gratton-Fisher & Zirkel, 2021; Lengyel, & Vanbergeijk, E., 2021; Vanbergeijk, & Lengyel, 2021). These mandates, while written to provide a clear path for children with disabilities in their educational journey (Blanck, 2019), have shown a need for more clarity and meaning (Gray et al., 2019; Voulgarides & Barrio, 2021).

Since the passage of the IDEA, there has been much research that has discussed

the requirements of the mandate of FAPE (Hott et al.,2020; Jamesone et al., 2020;

McKenna et al., 2021; Ortiz et al., 2020; Stevenson & Correa, 2019). In fact, case law has

been noted in addressing the standard of FAPE (Supreme Court Decisions, 2019),

especially to gain a clear understanding of the standard "appropriate." A study by

Dieterich et al. (2019) examined the U.S. Supreme Court ruling in the Endrew F. v.

Douglas County School District that investigated the interpretation of the FAPE standard

of appropriate. The case of Endrew addressed the question of to what level must

educational benefits be provided in order for FAPE to be successfully offered to a child.

The importance of the Supreme Court taking up this case centered on the lack of a

definitive interpretation of the standard appropriate that school administrative personnel

could follow. In their ruling, the Supreme Court created a new standard that detailed a

more collaborative relationship between school personnel and parents during the IEP

planning process to create effective goals for the child (Dieterich et al., 2019).

Another notable case law on the importance of clarity with FAPE focused on

students with reading disabilities. A 15-year review of the literature investigated the

success rate of the Orto-Gillingham instruction tool for students with dyslexia. The

findings from the review concluded that in comparison to earlier findings, IDEA 2004

regulations brought with it stronger awareness for reading intervention in IEPs that

supported parent litigation (Sayeski & Zirkel, (2021). These improvements in the

interpretation of FAPE in the IDEA can be attributed to case laws creating a better

definition (Yell & Bateman, 2019). This improvement is beneficial in preventing school personnel from performing procedural, substantive, and implementation errors by preparing and equipping teachers with the information necessary to strengthen an IEP for children with disabilities (Yell & Bateman, 2019).

Specifically, the change in the definition of FAPE has made an impact in the area of several disabilities. In a study, the case of Endrew F. v. Douglas County School District was examined to determine how well the requirements of FAPE were being implemented in the IEPs of children with emotional and behavioral disorders (Yell, 2019). An important factor, in this case, was the determination of what is considered to be an appropriate educational benefit standard in the IEP for a child with emotional and behavioral disorders. The results of this case determined that behaviors assessed must have programs implemented that address and meet the need, while also ensuring that what is written in the IEP is enforced (Yell, 2019). Another case study investigated how well the requirements of FAPE can be met in the IEP of children with disabilities for physical education and adapted physical education services. Five cases were examined with the results showing that in two rulings the courts found that the school districts did not error in their implementation of services in the IEPs. However, in rulings from the three other cases, the parents were able to show that the schools did not provide the necessary services needed to support the FAPE requirements (Yell et al., 2021).

AT's Influence on Learning

AT as a learning tool for children with disabilities is very helpful in classrooms (Oakley et al., 2020; Rizk, & Hillier, 2022). While this is due to mandates that require its

implementation as part of the IEP, it is making several positive impacts on learning (Neokleous, 2019; Pennington et al., 2021). These improvements in learning outcomes include academic achievement (Bell, & Foiret, 2020; Hyland et al., 2020; Lund, 2020; Picou,et al., 2020; Tawafak et al., 2019), increase in student motivation (Nordström et al., 2019), and improvement in communication (Byatt et a., 2021; Marshall et al., 2019).

Academic Achievement

In the last few decades, there has been much research that has detailed how well AT usage can lead to better academic outcomes in the classroom (Anderson et al., 2020; Barbetta et al., 2021; Gonzalez et al., 2020; Hong et al., 2022; Scrimgeour & Huang, 2022). In fact, math and science are among the areas that are showing academic achievement (Cox et al., 2021; Olakanmi et al., 2020). A study by Bouck et al., (2020) explored how app-based virtual manipulative AT could be used in mathematics as a help for students with disabilities. Three middle school-age students participated in a single-case multiple-probe that sought to learn how app-based virtual manipulative AT can assist them in their ability to solve division with remainder problems. The intervention package consisted of an iPad, the Cuisenaire Rods app from Braining camp, and learning sheets used as probes. For the intervention part of the study, participants were given explicit instructions that consisted of modeling, while in the baseline design participants were given a probe sheet with five problems. Results of the study found a functional relationship between both the intervention and baseline packages and the participant's ability to solve division with remainder problems. Findings also revealed that the

participants also had a prominent level of accuracy when receiving no instruction (Bouck et al., 2020).

Another area of academic achievement can be found in the area of speech. A case study was conducted to investigate how effective a gaze-controlled interface using a word constructive game could be used to improve communication and learning skills. Results from the study found that individuals with severe speech and motor impairments showed a statistically significant improvement in their ability to construct words using the interface (Jeevithashree et al., 2019). The improvement in academic achievement can also be credited to the use of text-to-speech and human reader devices (Brunow & Cullen, 2021). Text-to-speech devices were found to aid students with learning disabilities in their reading and comprehension, while a human reader was found to be most effective in helping students with learning disabilities with their listening comprehension (Brunow & Cullen).

Furthermore, AT has shown academic achievement in the area of early childhood special education. In a study of twenty children school-aged children, ten of whom had aural atresia and ten with normal hearing an amplification device was used to assess the areas of language, reading, classroom, and quality of life. Results found a small difference between the group of school-aged children with AA and the group of school-aged children with normal hearing in their assessment scores. These findings indicate that when offered early, AT can be a vital source for a student's academic achievements (Hyland et al., 2020). Another study evaluated the use of cochlear implants in the development of lexical knowledge and phonological awareness. Ninety school-aged

children were recruited and divided into three groups, thirty with cochlear implants, thirty

children matched by age, and thirty children who were matched by their vocabulary size.

The findings indicated that while scoring lower than their peers in the area of vocabulary

and phonological awareness in the classroom, school-aged children with cochlear

implants matched the scores of their peers in their neighborhoods (Lund, 2020).

Increase in Student Motivation

In today's society, technology has become a great influence on children (Buteau

& Lee, 2021; Gutiérrez & Cejudo, 2019) which has seen them become highly

experienced users and operators (List, 2019). Because of this, technology that has been

offered to children with disabilities has been shown to raise the level of motivation for

students in the classroom. An example of this was seen in a study conducted by Buitrago

et al (2020), who discussed how the use of a socially assisted robot for a child with

cerebral palsy improved their motivation during physical therapy sessions. Also, student

motivation was found to increase for students with learning disabilities when they were

able to gain access to a Comprehension Strategies Mobile App (COSMA) to assist them

in their reading comprehension (Özbek & Ergül, 2022). Students have shown a higher

rate of participation and engagement in the classroom with AT usage (Pedersen et al.,

2021; Zainuddin & Perera, 2019). To explore how using AT affects students with severe

reading disabilities, Svensson et al. (2021) conducted a study. Students in the

experimental group were supplied AT devices for schoolwork, while the control group

received regular treatment for their reading skills. Assessments were conducted in the

form of tests to measure the students' reading levels. Results from the study showed that

students in the experimental group had similar improvements in their reading, while also revealing that AT was a strong motivator for both reading and schoolwork (Svensson et al., 2021).

The implementation of AT in the classroom to increase the level of student motivation has also found its way into the field of early childhood special education. Sreekumar et al. (2020) conducted a case study of a seven-year-old child with cerebral palsy using Augmentative and Alternative Communication (AAC) in the use of the iPad app (AVAZ) to address severe expressive communication disorders. To measure the improvement levels, a communication matrix was used along with the Test of Aided Communication Symbol Performance (TASP) which helped with the design of the AAC system used. With the help of AT, the results showed an improvement in the child's levels of motivation along with an increase in confidence. These improvements in the child's motivation and confidence also revealed that the child improved in communication and literacy skills, although no improvement in auditory was noted (Sreekumar et al., 2020). Chen and Dote-Kwan (2021) conducted a study of a general education teacher and a special education teacher who taught together and lacked experience with visual impairments. The classroom consisted of twenty preschoolers of which six preschoolers required special education services. Collaborating with an educational team providing universal design for learning (UDL), a curriculum was created that addressed the educational needs of two children in the classroom who had visual impairments. The results found that the collaborative effort made by the team boosted student motivation.

Improvements in Communication

AT in the classroom provides great opportunities for communication and participation (Babb et al, 2020; Kocamaz et al., 2021). Smartphones, tablets, talking devices, large print materials, text-to-speech, and screen reading software are just some of the ways that allow children with disabilities to communicate in the classroom. Communication established through AT use can also build stronger social skills. Many times, the increase in their social interaction with others also leads to children with disabilities voicing their thoughts more freely (Biegun et al., 2020; Cahapay, 2021). By using AT, building a stronger voice for children with disabilities can also allow for their inclusion in the IEP meeting (Biegun et al., 2020). Besides creating a stronger voice, AT can also build stronger communication with teachers and the child with disabilities. By establishing communication partnerships, teachers can create strategies and instructional approaches that better meet the needs of the child with disabilities (Tegler et al, 2019). This developmental approach toward communication can also be seen in the early childhood special education field. Lorah et al. (2021) conducted a study that evaluated the impact a communication strategy called peer manding had on three preschool children with an autism spectrum disorder. Manding takes place when a peer makes a request for an item, information, or attention from an individual while waiting for their response. Based on the findings from the study, all three of the preschoolers were able to successfully mand from the teachers after training. In addition, two of the three preschoolers were also able to maintain the newly learned skill (Lorah et al., 2021).

Challenges with Integration of AT

Although there are many educational and developmental benefits to using AT in the classroom for children with disabilities, which have been discussed in the research, there are several barriers that are preventing the integration of AT. These barriers act as challenges that have both external and internal implications that affect the extent of AT that gets integrated into the classroom for children with disabilities. Understanding how to address these barriers can possibly lead to AT integration happening more consistently in classrooms for children with disabilities.

External Barriers

External barriers are complex structures that exist within the educational environment that individuals encounter (Hamutoglu & Basarmak, 2020). What makes external barriers challenging is that these structures are not something that teachers have control over (Basarmak et al., 2020). While the barrier to technology integration model shows that several external barriers exist when it comes to the implementation of AT for children with disabilities, lack of access, lack of training, and lack of administrative support have emerged as main issues (Al-Zboon, 2020; Basarmak et al., 2020; Hamutoglu & Basarmak, 2020; Mercader, 2020).

Lack of Accessibility

In the last twenty years organizations have been working hard to improve policies and regulations in order to raise the level of access to AT in the classrooms (Baule, 2020). Yet, research suggests that accessibility is still an ongoing issue in the classrooms for children with disabilities (Kisanga, 2019: Willis & O'Reily, 2020). While present in

the classrooms for children with disabilities, there are still limitations. For example, according to the National Assistive Technology Research Institute, only a third of the children that qualify for AT services are actually gaining access to them (Tuttle & Carter, 2022). In addition, while classrooms have seen a 1:1 increase in AT such as a computer, issues such as web availability, or insufficient bandwidth makes its use more difficult (Baule, 2020; Singhavi & Basargekar, 2019). Furthermore, technical issues such as these have been noted as some of the barriers that teachers believe to have an influence on the accessibility of AT (Tuttle & Carter, 2022). Even when policies and regulations aim to increase the level of accessibility of AT use in classrooms for children with disabilities, they are not creating an equitable balance that is necessary to ensure their educational growth (Shaheen, 2022).

Lack of Training

Professional development is yet another area in which Teachers of children with disabilities find themselves lacking the necessary skills when it comes to AT (Fernández-Batanero et al., 2022; Ozer, 2022). Marsh et al. (2021) noted that one of the main reasons that teachers are reluctant to use AT in their classrooms is a lack of knowledge and confidence in their ability to successfully provide children with disabilities the help needed for successful AT use in the classroom environment.

Jones et al. (2021) conducted a research study that investigated the impact of training on preservice teachers for different types of AT devices using the Student Environment Task Tools (SETT) framework for selecting appropriate AT. The aim of the study was to determine whether the training received would help preservice teachers

strategize to make appropriate AT choices for children with disabilities in their IEP. Sixty-eight preservice teachers who participated in the study who were pursuing a degree in secondary education or K -12 special education were given a presurvey case study scenario to get an understanding of their level of knowledge and skills regarding AT. Using a mock IEP along with the SETT framework, the participants were provided with a 45-minute instruction led session that offered help in the application of these procedures. A post-survey was given that provided information on the SETT framework. By conducting surveys using open-ended questions, Jones et al. (2021) discovered that when teachers are exposed to programs that are focused on increasing the level of their knowledge and skills, this exposure improves AT implementation. This increase in the teachers' abilities also benefits children with disabilities in their educational journey and all areas of their lives.

Lack of Administrative Support

While having opportunities to train to increase their level of knowledge and skills, teachers are facing other obstacles such as insufficient funding and support issues (Basarmak et al., 2020; Lamond & Cunningham, 2020). For teachers to be able to offer the best AT services for children with disabilities it is necessary for them to receive as much administrative support as possible. In fact, Atanga et al. (2020) conducted a study of one hundred and two teachers of students with learning disabilities to investigate how they can become more proficient in using AT to bridge the gap between them and their peers. Using a Likert scale and a demographic questionnaire a survey was taken from the participants to measure the proficiency of AT usage by teachers of students with learning

disabilities and to learn what barriers prevented successful AT integration and implementation in the classrooms. The research indicated that among the barriers that emerged was a need for the support of the administrative staff in the areas of training in college courses, and funding.

Internal Barriers

Internal or secondary barriers are factors in the school environment that take place at the level of the teachers. This includes the school's culture on AT, the beliefs and attitudes that teachers have about teaching and AT, and their willingness to change ((Hamutoglu & Basarmak, 2020). While each of these factors has proven to act as a barrier it is the beliefs and attitudes that teachers have about teaching and AT that have emerged from research as being the strongest deterrent when it comes to AT integration in the classrooms for children with disabilities (Basarmak et al., 2020).

Teachers' Perspectives of AT

Understanding the perspectives teachers hold when it comes to AT use is beneficial in learning how improvements can be made that can lead to more integration of AT in classrooms. However, teachers' perspectives can at times be complex in regard to gaining an understanding as a whole. For example, in a research study, it was found that when it comes to teachers' perspectives on AT use, teachers do not always have the same view about the effectiveness of certain AT devices (Almaki, 2020). This difference in views suggests that when it comes to AT use what kind of device that is being discussed for integration and implementation may play a role in what teachers are willing to use in the classroom (Almaki).

Instructional Value

For some Teachers of children with disabilities, their perspectives of AT use can be affected by their views of its instructional value. These attitudes and beliefs toward AT are a heavy influence (Farjon et al., 2019). For example, Demirok et al. (2019) conducted a study that explored the opinions of teachers on how well AT helped students with overcoming their reading difficulties. The study consisted of ten special education teachers, eight females, and two males who worked at a private school. Results from the study found that teachers' perspectives of the instructional value of AT for reading difficulties were promising with teachers believing that it was effective in developing positive attitudes toward reading. Yet, teachers also stated that they felt that its value was lessened because the majority of the teachers lacked the skills sufficient to properly integrate the AT into their classrooms. This study suggests that while AT can be a great aid, teachers lack the knowledge needed to raise its instructional value which can be beneficial in problem-solving, collaboration, and other developmental skills in children with disabilities (Magen-Nagar et al., 2019; Ozcinar et al., 2020).

Level of Training and Preparations for Programs

An additional perspective for Teachers of children with disabilities that affects its integration into the classroom is their perceived level of training and preparations for programs. According to Lamond and Cunningham (2020), the results of their study showed that the average score of teachers when it comes to their skill level of AT devices and programs was found to be poor, along with results showing the need for more training that focused on AT. In a quantitative descriptive study, Alghamdi (2022) used a

self-assessment survey to explore how teaching candidates at an urban university to investigate their perspectives of their knowledge, confidence, and abilities in reference to AT. Findings from the study revealed an inconsistency when it came to how the candidates viewed the use effectiveness of AT in comparison to other studies. Here the author found that the candidates were more knowledgeable and confident than in previous studies. Another finding revealed that when it came to prior and current experience, how confident a candidate was could be connected to the type of work experience they had and how that experience tied into their exposure to AT. This suggests that teachers' perspectives of their training and knowledge and program preparations influence their overall confidence when it comes to AT use.

Level of Confidence

Another perspective that affects the integration of AT in the classroom is their confidence in the type of AT being offered and the curriculum that is being used for children with disabilities. A study conducted by Leatherman and Wegner (2022) explored the perspectives of teachers who were using Augmentative and Alternative Communication (AAC), specifically speech-generated devices (SGD). Fifteen teachers were given semi-structured interviews to gain an understanding of their perspectives of implementing AAC in their classrooms. Results revealed a sense of nervousness, uncertainty, intimidation, and feeling overwhelmed when it came to implementing AAC in their classrooms. Participants also described themselves as lacking the experience and knowledge needed to work with students using the SGDs. It was also revealed by the participants that when it came to implementing AAC, gaining access for their students,

technical issues, and funding were some of the views that emerged in the study. This suggests that teachers' perspectives of the types of AT used, and its curriculum influences their confidence in their ability to successfully implement it in their classroom for children with disabilities.

AT Challenges in Other Countries

The challenges that teachers face and the perspectives that they have regarding AT and its use can also be seen in other countries. In fact, issues such as a lack of funding, training, and issues with tech (Genc et al., 2021) are just some of the challenges that are taking place with AT use in other countries. Furthermore, some countries find themselves in the position of not having teachers who have the necessary skills needed to effectively implement AT in classrooms (Nunes & Walter, 2020). In a study conducted in Kenya, Murithi et al. (2022) found that teachers lacked the skills needed to implement augmentative and alternate assistive technology due to the poor quality of the equipment as well as insufficient support. This suggests that the need for training and administrative support when it comes to AT use is needed in other countries.

When it comes to barriers that teachers face regarding AT use it is not limited to specific countries. For example, in a study, Al-Zboon (2022) explored ethical practices and technology in education for individuals with disabilities in Jordan to learn the perspectives Teachers of students with visual impairments held toward AT. To collect the data for the study, a constant-comparative method was used while interviewing twenty teachers. Key findings from the study revealed insufficient availability of AT in each class, and inappropriate methods used that displayed a lack of understanding of how to

use the AT. Barriers that teachers saw were a lack of funding, difficulty in training students, and a lack of professional training for teachers. Teachers also believed that these barriers would produce negative attitudes among the staff (Al-Zboon, 2022). In another study, O'Sullivan et al. (2021) investigated how the systems thinking approach could be used to gain an understanding of teachers' perceptions and the use of AT in Ireland. Three hundred and five teachers participated in a mixed-methods study that featured a quantitative survey and qualitative focus groups. An Interpretative Phenomenological Analysis (IPA) approach was conducted and reported per the Consolidated Criteria for Reporting Qualitative Research (COREQ) to gain insight into teachers' needs, challenges, perceptions, and experiences when it comes to AT. Findings from the study revealed issues such as low levels of AT knowledge, access to more training, and academic support with a stronger policy that improves AT effectiveness (O'Sullivan et al., 2021). This suggests that even in other countries there is a need for teachers and professionals to have a full understanding of how to implement AT so that it can be utilized to its full potential for children with disabilities in the classrooms.

Summary and Conclusion

Themes emerged from literature involving teachers' perspectives of AT use in classrooms for children with disabilities. The most notable of these themes are AT's impact on learning, challenges with integration of AT, teachers' perspectives of AT, and impact of AT in other countries.

One theme that emerged is AT's impact on learning. When integrated into classrooms, AT increases academic achievement (Anderson et al., 2020; Barbetta et al.,

2021; Bouck et al., 2020; Brunow & Cullen, 2021; Gonzalez et al, 2020; Hong et al., 2022; Jeevithashree et al., 2019; Scrimgeour & Huang, 2022), student motivation (Buitrago et al., 2020; Buteau & Lee, 2021; Chen & Dote-Kwan, 2021; Gutierrez & Cejudo, 2019; List, 2019; Ozbek & Ergul, 2022; Pederson et al., 2021; Sreekumar et al., 2020; Svensson et al., 2021; Zainuddin & Perera, 2019), and improvements in communication (Babb et al., 2020; Biegun et al., 2020; Cahapay, 2021; Kocamaz et al., 2021; Lorah et al., 2021; Tegler et al., 2019). While there are many ways that implementation of AT can benefit children with disabilities in classrooms, it is unknown why AT is not being used consistently by all teachers in their classroom. This inconsistency prevents potential for benefits.

Another theme is challenges with integration of AT. External and internal barriers are challenges that prevent AT from fully functioning in classrooms for children with disabilities. Barriers include lack of accessibility, training, and administrative support (Basarmak et al., 2020; Hamutoglu & Basarmak, 2020; Mercader, 2020).

Several themes pertain to teachers' perspectives of AT. Another theme is level of training and preparation for programs. Teachers gain more confidence when they believe they are well-prepared and have knowledge to implement AT in their classrooms (Alghamdi, 2022). Confidence is another theme that is related to teachers' perspectives of AT. Integrating and implementing AT services and curriculum can lead to teachers feeling nervous, intimidated, and overwhelmed (Leatherman & Wegner, 2022). The final theme is impact of AT in other countries. Lack of professional training, administrative support, and insufficient funding are areas of concern as well.

While there is research on teachers' perspectives regarding benefits and barriers involved with AT use in classroom environments for children with disabilities, there is a gap in literature pertaining to teachers' perspectives of AT use when writing IEPs with parents. Additionally, there is a lack of literature regarding decision-making processes when writing IEPs for children with disabilities.

There are recent studies that address mandates that require AT to be integrated into IEPs for children with disabilities, but they do not address reasoning why teachers do not use these services on a consistent basis. I addressed this gap by examining a small group of early childhood special education teachers to see how and why they were reluctant to offer AT services when writing IEPs with parents.

I employed a qualitative research design. A basic qualitative approach was used to address this topic. Chapter 3 includes information regarding the research design as well as my role as the researcher. Additionally, participant selection and instrumentation are examined along with data collection and analysis procedures. Finally, trustworthiness and ethical issues are explored.

Chapter 3: Research Method

The purpose of this study is to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. This study involved exploring types of decisions this population made concerning this topic. In this chapter, I describe the research design and rationale, my role as the researcher, methodology, target population, sample size, and instrumentation. In addition, data collection and analysis, trustworthiness, and ethics are also discussed as they relate to this study.

Research Design and Rationale

The purpose of this study was to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. The following research questions were used:

RQ1: What are perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents?

RQ2: How do perspectives of K-2 teachers of children with disabilities regarding using AT affect decision-making processes when writing IEPs with parents?

These questions were answered by using a qualitative research design. Qualitative research involves understandings individuals have about the world they are part of and how they construct their world based on their experiences with a phenomenon (Ravitch & Carl, 2016). The quantitative research design is rejected because there was no need to discover cause and effect, make predictions, or use numbers or variables. I conducted this study in one school district. This decision was based on time restraints and my work schedule.

There are many types of qualitative research. Narrative research involves using stories of one or two individuals to share first-person lived experiences involving phenomena (Burkholder et al., 2016; Yasar, 2021). I did not plan to share social or individual stories via a narrative format, nor did my study require a small sample size. Ethnography involves the study of cultures of groups of people and perspectives and behaviors (Katz et al., 2021; Patton, 2015). For this study, I did not plan to explore or examine cultural differences among a group of people or gather data through participant observations. Phenomenology involves using journal entries, reflections, and personal text diaries along with in-depth interviews (Bayram, 2021; Patton, 2015). With this approach, researchers seek the essence or meaning of experiences regarding a phenomenon as they were lived by individuals or groups, while also considering their own experiences involving the phenomenon (Merriam & Tisdell, 2016; Ravitch & Carl, 2016). Because I did not seek to add my perspectives and experiences, this method was not chosen.

What distinguishes a basic qualitative study design from other qualitative studies is that questions used by researchers are simple and not complex (Merriam & Tisdell, 2015). In addition, this design is used to frame the study in a way that does not require a clear-cut or detailed theoretical, philosophical, epistemological, or ontological explanation. The constructivist approach involves gaining an understanding of ways people construct and interpret experiences (Creswell & Creswell, 2020).

To understand a phenomenon, the basic qualitative study design can also involve using interpretive descriptions. This allows for interviews that rely heavily on open-ended questions as sources of data to draw meaning and understanding.

Because I sought to gain a better understanding of perspectives of teachers of children with disabilities about using AT when writing IEPs with parents, a basic qualitative design was the best approach. It involves exploring groups of individuals to determine what can be learned from interpretations of their experiences involving phenomena (Merriam & Tisdell, 2016). While research indicates perspectives that teachers of children with disabilities have of AT, there is insufficient literature that explains perspectives of teachers of children with disabilities about using AT when writing IEPs with parents.

Role of the Researcher

Because I conducted a basic qualitative study, I was the data collection instrument. As an outsider who did not participate in the study, I used an interpretivist approach. This required data collection took place in the field. In addition, an inductive process was used to develop concepts from interviews. Because I had no connections to the local school district that I used to conduct my study, my role was moderator and not based on prior established relationships.

Creswell and Creswell (2020) stated bias and assumptions when not addressed can interfere with ways data are processed. Understanding the difference between empathy and caring leads to rationality as well as interdependence (Patton, 2015). Relational approaches not only address negative outcomes of bias and assumptions but

also awareness and insights regarding phenomena while conducting the study. This study had personal biases and assumptions that I addressed. Reflexivity through journaling was used to critically analyze biases and assumptions.

As an educator with over 20 years of experience working in early childhood environments, the special education field, and a Master's degree in Disability Studies with an emphasis on Disability Policy, I have developed a personal view of how I believe AT should be included in an IEP for children with disabilities. However, because I am conducting my study in a local school district with no affiliation, I must understand that there are no relationships established. Instead, I will have a moderator role (Patton, 2015) that maintains a degree of power over those who volunteer which can possibly cause bias in the study. This is also an ethical issue because I am doing the study in an environment where I do not work. This means that I will have to take an outsider approach (Patton) to research where I will be an observer and not a participant of the community where I am conducting my study. This can possibly interfere with my ability to be objective (Patton, 2015). Thus, it will be important that all personal views of the researcher regarding this social phenomenon be removed throughout the data collection process.

As I conduct my research, I will address these issues by becoming more aware of the views that I have. One way that I plan to do this is by creating an audit trail through the use of reflective journaling as I conduct my research. Reddig et al. (2021), stated that an audit trail details how data was collected and decisions made that can be reviewed. Likewise, Creswell and Poth (2017) stated that providing documentation of their thinking process through an audit trail helps the researcher with the validity of the study. The use

of an audit trail is an effective way for the researcher of this study to display the steps

taken in this study toward eliminating bias. By using an audit trail, I will also be able to

address any ethical issues present as a result of my role as the moderator.

Reflective journaling is a form of note-taking that gives a description of the

experiences during data collection that the researcher reflects on (Creswell & Creswell,

2020). In addition, Creswell and Poth (2017) discussed that the reflective process

involved in journaling allows the researcher to position themselves in the study by

sharing their understandings. I plan to journal throughout the study, making notes of my

reactions to responses provided by the participants regarding their perspectives. In my

role as the moderator, journaling will help me monitor how I interact with the

participants, which will be helpful in relationship building. Journaling throughout the

study will also help me identify areas of concern and make plans on ways to address

issues that may develop. The ability to critically reflect on one's personal bias and its

influence on the research process (Duffy et al., 2021), is a skill set needed to establish

reflexivity and trustworthiness (Woods, 2019).

Another way that I will address bias is through peer debriefing by having a

colleague who is not associated with my study review my findings (Ravitch & Carl,

2016). Because of my role as the moderator as well as not having any connection to the

community of teachers, I may have a bias in the study based on my personal opinions.

The use of peer debriefings allows researchers to get outside perspectives from

individuals not associated with the study who can ask questions about the analysis of the

data or findings (Dyson et al., 2021). Engaging with these experts in discussions that are

purposed toward clarity and revealing areas of researcher bias (Burkholder et al., 2016), strengthens the credibility of the study.

To address the issue regarding the way participants' responses are interpreted during data analysis, member checking will be conducted (Merriam & Tisdell, 2016). Member checking takes place when the researcher provides a summary of their findings to the participants who are part of the study to get their thoughts on their analysis of the data collected to determine accuracy and truth (Burkholder et al., 2016). This process will be implemented during the study by going back to the volunteer teachers once all data has been transcribed, coded, and analyzed for emerging themes to check for the accuracy and truthfulness of the overall findings. Each participant will be instructed that within 7 days a summary of the findings will be provided to them for their review. Once their data from the interview has been analyzed a follow-up meeting will be set. At this meeting, participants will be asked to review the findings and offer recommendations on areas such as how well their perspectives are reflected, clarity of the codes and emerging themes, any misunderstandings, overall accuracy, and whether there are any biases present (Ravitch & Carl, 2016). Should there be any discrepancies, notes will be taken to rectify the matter until the participant believes the findings best represent their statements.

Because of my teaching background and work experience my personal views may cause me to make errors while analyzing the data collected from the responses given by the participants. Burkholder et al. (2016), explained that seeking feedback from participants for verification of your interpretations of their responses is helpful for

validation of the overall findings. In addition, it will allow participants to review the

described authenticity of their interpretations, the codes used in the analyses, and how

accurate they believe the findings are to their views (Ravitch & Carl, 2016). Because I

will operate as an outsider in the local school district selected, the use of member

checking will demonstrate a sense of self-awareness that misunderstandings and errors in

the interpretations of the data are possible (William, 2020).

Methodology

Participant Selection

Before beginning my data collection, I will first obtain approval from the

Institutional Review Board (IRB) at Walden University. Once approval is obtained, I will

then go to Lake Mountain School District (a pseudonym used for confidentiality) which

also requires approval from its research review committee before a study can be

conducted in its school district. A request to conduct research form will be submitted

online per district requirements to obtain approval. Once this is completed and approved

participants will be selected. The participants who will be recruited for this study will be

10 -12 (or until saturation) K-2 teachers of children with disabilities from schools in the

Lake Mountain School District. Participants for this study will be selected using

convenience sampling. According to Patton (2015), convenience sampling is an

appropriate strategy when the focus is directed at gaining insight into a phenomenon.

This basic qualitative study meets this requirement because I seek to gain an

understanding and find meaning in a social issue where there is little known research.

The type of convenience sampling that will be used is the criterion (Patton, 2015).

Participants will be selected based on the following criteria: (a) participants must have

experience working with children with disabilities (b) participants must be teaching in

grades K through second grade (c) participants must have 3 or more years of classroom

experience (d) participants must have experience in writing an IEP and (e) participants

must have a working knowledge of Assistive technology classroom use.

After obtaining approval from the research review committee of Lake Mountain

School District, an email will be sent out to all local Principals of the school district

introducing myself. The email (Appendix A) will explain the nature and purpose of the

study along with attachments of the approval letter of the IRB and the research review

committee of the school district. Principals will also be asked to provide a letter of

cooperation granting their permission and approval to contact teachers at their schools to

participate. Once approval has been received from the Principals, an invitation to

participate email will be sent to teachers via the contact information found on the school

website. To participate in the study all teachers must meet the criteria.

Instrumentation

For this study, I will collect data using recorded interviews that are generated

from an interview protocol. This instrument (Appendix D) will provide the opportunity to

collect rich, detailed data on the experiences of the participants of the study (Rubin &

Rubin,2012). In addition, this instrument offers flexibility in the structure of the questions

presented allowing the researcher to probe for more detail in the responses provided

(Rubin & Rubin). This instrument is also based on the background literature and the research questions that drive the study.

The interview protocol will consist of semistructured questions that align with both research questions. This interview protocol was chosen due to its ability to solicit and discover meaningful data that relates to the study (Hu et al., 2021). The interview questions that were selected each address factors that influence teachers of children with disabilities' perspectives of AT usage (see Atanga et al, 2020), and they focus more on their planning and the decision-making process when preparing the IEP with parents. Piaget observed that experiences play a key part in the way people understand their environments (Kretchmar, 2018; Pardjono, 2016). Similarly, (Ahmed, 2018; Grimsby, 2020; Jones et al., 2021) noted that perspectives teachers of children with disabilities have with regard to AT use could influence its implementation when writing the IEPs with parents.

The use of semistructured interview questions will provide this study with content validity. To make sure that the interview questions are clear, I had them reviewed by an expert teacher in the field of Education who has a Ph.D. In addition, an expert panel of local Professors whom I have previously worked with and who have Ph.D. and EDD degrees in the field of Education also reviewed the questions. Upon review, several questions were given minor changes in structure to create more clarity and alignment with the research questions. Also, follow-up questions were added to each initial question. I conducted a test run of the interview protocol to determine whether it would meet the requirements that have been set. I met with a family member who works as an

Assistant Director of Special Education at a school in a nearby school district. Before the interview, I emailed her the questions so that she could get familiar with them. The audio-recorded interview lasted approximately 53 minutes and 12 seconds and is stored in a file. In reflection, the addition of the follow-up questions contributed to meeting the time frame of between 45 minutes to 1 hour.

This approach is helpful for my study because the semistructured interview questions will present a close relation to the literature, which includes the gaps in research as well as the conceptual lens of the study. It also aligns with the research questions of the study (Ravitch & Carl, 2016). The use of semistructured interview questions for my study presents the possibility that there will be sufficient data collected to answer the research questions.

Procedures for Recruitment, Participation, and Data Collection

In order to be able to conduct this basic qualitative study, there are specific guidelines for recruitment, participation, and data collection. The guidelines that I will follow will be discussed in the following subsections.

Recruitment and Informed Consent

Before I begin to recruit participants for the study, I will first have to obtain approval from the IRB. Once I have received approval from the IRB, I will then go to the Lake Mountain School District and seek approval to recruit participants for the study. To gain approval from Lake Mountain School District, I will submit an online request to conduct research to their research review committee. I will also provide them with a copy of my approval from the IRB as well as a full explanation of the purpose of the study.

Once approved, I will then ask for a signed letter of cooperation from Lake Mountain

School District that I can show to the principals at elementary schools. An email will be

sent to all Principals via email taken from contact information found on the school

website. After obtaining permission from the principals at the elementary schools, I will

again ask for a letter of cooperation stating that their school is partnering in my research.

Once I have permission from the principals at the elementary schools, I will send an

invitation (Appendix B) to all teachers of grades K – second grade providing a full

description of the study. Along with the invitation will be an informed consent form

(Appendix C) that will further explain the details of the study. For convenience purposes,

all volunteers who choose to participate will be asked to respond to the invitation "I

consent" via email. At the time of the face-to-face interview, all teachers will be asked to

sign the consent form for recordkeeping.

Data Collection

Two sources will be used to collect the data for this study. Individual interviews

will be conducted with the participants that have been selected for the study. Based on

whether COVID protocols will be in place selection of a location to hold face-to-face

interviews may be limited. In place of face-to-face interviews, a Zoom meeting will be

used to conduct and record the interview. For convenience purposes, volunteers will be

asked to respond to the invitation "I consent" via email. The interview with the selected

participants will last around 60 minutes. To conduct the interviews for the study, an

interview protocol (see Appendix D) will be used. All interviews will be audio-recorded

on devices that will be tested before their usage. Upon completion of the interviews and

data analysis, a follow-up will be conducted that will offer participants the opportunity to review and/or explain their experiences for clarification (Cresswell & Poth, 2017).

Notes in my reflective journal (Ravitch & Carl, 2016) will be taken during the interviews to provide another source of data collection. Using this approach will help with planning by allowing me to gain information from previous interviews that can be used going forward (Merriam & Tisdell, 2016). Notes in my reflective journal will also be helpful by providing quick notations of what was seen by the researcher that can give better explanations of the participants that cannot be picked up in the recordings (Ravitch & Carl).

At the conclusion of the interviews, each participant of the study will be given a debriefing. The debriefing will allow the participants to ask any questions that they may have concerning the study as well as address any personal concerns of theirs (Burkholder et al., 2016). Participants will also be instructed that once the data has been analyzed, a follow-up interview may be required in order to ensure the clarity of their responses.

Data Analysis

The interview guide for the study consists of nine open-ended questions and follow – up questions that are related to the research questions. I will transcribe the audio-recorded interviews as they are completed using Google Docs. The qualitative data analysis software (QDAS) NVivo (Patton, 2015) will also be used to edit transcripts for accuracy and comparison. A content analysis method will be used to find descriptive patterns and themes taken from the data collected (Lehmann et al., 2019; Patton).

First and second cycle coding will be used to analyze the interview guide questions. Saldana (2016) stated that it is important that the coding cycle selected aligns with the research question used in your study. Data taken from the interviews will be placed into subcategories. Process and Initial coding will be used in the first cycle to summarize the participants' perspectives. Process coding will be used to analyze certain human actions, while initial coding will be used to seek out similarities and differences of these actions (Saldana). For the second cycle, pattern coding will be used to group themes or concepts into smaller categories found during the first cycle analysis (Saldana, 2015). The (QDAS) NVivo will be used to code the transcribed data to learn what themes emerge from the responses provided by the participants. Saldana (2015) discussed that discrepancy during analysis is always a possibility. Should a discrepancy from an interview occur during analysis, I will not delete or rethink what emerges during the coding cycles. These discrepancies will also be reported as well.

Once I have completed transcribing the interviews and coding the data, I will then compare this information with my notes in my reflective journal. Reviewing the notes in my reflective journal that I will gather during the interviews against the transcripts will give me the opportunity to closely examine and validate the information taken from the interviews. This will also allow for the validation of themes that were revealed during the coding process (Saldana, 2015), which can possibly be helpful in validating the data thus gaining a deeper understanding of the perspectives of teachers of children with disabilities about using AT when writing the IEP with parents.

Trustworthiness

In a qualitative study, credibility, transferability, dependability, and confirmability are essential components needed to establish trustworthiness (Burkholder et al. 2016). There are several different approaches that can be used to establish trustworthiness. Some examples are triangulation, audit trails, reflexivity, or member checking (Ravitch & Carl, 2016). In my study, interviews and notes from my reflective journal will be used as multiple sources to triangulate the data. I will also conduct peer debriefing with a colleague for my study.

Credibility

Credibility plays a key role in establishing trustworthiness in a qualitative study. Basically, credibility provides validity to the study for the researcher through their ability to establish a connection between the research question and the findings from the data (Burkholder et al., 2016). To establish credibility for my study, I will need to use multiple methods. One method that will be used is reflexivity using notes from my journal (Merriam & Tisdell, 2016). According to Burkholder et al., note-taking in a journal helps to establish credibility through a critical examination of biases held. In addition, it details responses made during the research process and the adjustments addressed based on the information found during the study (Burkholder et al.). Furthermore, member checking will be used to also establish credibility. Member checking requires having participants in the study examine their responses for accuracy, while also being asked to give their thoughts on the findings (Creswell & Poth, 2017). To conduct member checking for my study, once interviews have been analyzed, I will present the participants with a summary

of my findings and solicit their feedback on how accurately they believe their information

was conveyed. To accomplish this, once the audio-recorded interviews are complete, I

will instruct the participant that within 7 days they will be provided a summary of the

findings (Burkholder et al.). I will then take the audio-recorded interview and begin the

process of analyzing the data. After analyses of the data have been completed, I will

contact the participants by email and offer them the option of reviewing the summary of

the findings via Zoom or in person (Creswell & Poth).

Transferability

For a researcher to have transferability in their study, they must show how the

study can be applied or transferred to other environmental factors or situations (Ravitch

& Carl, 2016). To establish transferability, a researcher must provide a thick, rich

description along with a maximum variation of the settings and assumptions of the study

(Burkholder et al., 2016). In my study, I will provide a detailed description of the

complexities of the participants, settings, and procedures so that others can take the

finding to further research the phenomenon. Providing great detail of the data in my study

will allow others to make comparisons with similar research designs and findings, which

will help with making informed applications (Burkholder et al.).

Dependability

For a study to be dependable, its reliability is based on the results of the data

having consistent stability over a period of time (Ravitch & Carl, 2016). In addition,

dependability is established when a researcher provides evidence of consistency when

reporting the analysis of their data (Burkholder et al., 2016). For a study to be

dependable, its reliability is based on the results of the data having consistent stability

over a period of time (Ravitch & Carl, 2016). Furthermore, dependability is established

when a researcher provides evidence of consistency when reporting the analysis of their

data (Burkholder et al., 2016). For this study to ensure dependability, an audit trail will be

used. An audit trail will increase the dependability of my study by keeping a detailed

account of the data collection process, how decisions are made, and how categories are

formed (Merriam & Tisdell, 2016). Reflexivity will also be used in the study to confirm

dependability and limit bias. I will review the notes taken in my reflective journal during

the study so that I can critically self-analyze any biases that I may hold as I proceed

through data collection and analysis (Burkholder et al., 2016). This will be an essential

need considering that I will be collecting and analyzing data in an environment that I am

not a part of.

Confirmability

Confirmability in a study is determined by how well a researcher is able to display

objectivity in the findings through methods that can be verified and confirmed by others

(Burkholder et al, 2016; Patton, 2015). To establish confirmability for my study, a

confirmability audit will be used (Burkholder et al.). One method to establish

confirmability will be through researcher reflexivity. According to Mirja and Maatta

(2021), researcher reflexivity allows the researcher to find rich information while

preventing the interference of their own views. Furthermore, it offers the researcher the

ability to make documented notes that offers a reflective position of their rationale and

understanding of the data (Creswell & Creswell, 2020; Creswell & Poth, 2017). In

reflexive journaling, I will be able to address my own experiences, beliefs, and assumptions that influence my interpretations in order to present an in-depth analysis of the data collection results that can be reviewed by others for integrity (Creswell & Poth; Ravitch & Carl, 2016).

Coding is another method that will be used in this study to establish confirmability by the tables that will provide a display of the codes, categories and emerging themes from the data collected (Saldana, 2016). Ravitch and Carl (2016) stated that coding in a qualitative study helps the researcher to break down the data and create categories that provide patterns and descriptions. Similarly, there are multiple ways that coding can be used (Burkholder et al., 2016) when analyzing the data for emerging patterns and themes (Ravitch & Carl). Confirmability can be established by others through the data collected that offers support to interpretations and claims being made by the researcher (Ravitch & Carl). In addition, intercoder reliability will establish confirmability by how well the creation of a codebook for this study will allow others to code the data the same way (Campbell et al., 2013). Therefore, by using coding to analyze the data, I will be able to establish confirmability by presenting findings from the patterns and themes that emerge that others will be able to corroborate.

Ethical Procedures

Because I will be engaging in interactions with human participants in this study, there are ethical procedures that I must follow. In addition, because of the nature of my study, there are many areas of the study where ethics will be addressed. Thus, by addressing these ethical procedures during the study, the dignity, rights, and well-being

of the participants can be ensured (Sivasubramaniam et al., 2021). To make sure that this

study follows ethical procedures, the researcher will use several methods concerning the

recruitment of participants, as well as the collection and analysis of the data. The

following subsections will describe in detail the steps and procedures the researcher will

use to address these ethical concerns.

Once I have received approval of my Proposal, I will then proceed to gain

approval from the Walden University IRB to conduct data collection and analysis. After

obtaining approval from the IRB, I will then obtain permission from a local school

district research review committee to conduct my study. For confidentiality reasons, the -

name of the school district and schools will remain anonymous. Once I have approval

from the school district and principals of the schools, I will take invitations to the

elementary schools to seek out potential participants for the study. Once I obtain

informed consent from the teachers who agree to participate in the study, I will use

pseudonyms as codes for their names. This will again serve as a sense of confidentiality.

Research ethics requires that participants be protected from any harm during the

data collection process (Ramatea & Khanare, 2021). Ensuring that confidentiality (Hind

et al., 2019) is met are the steps that the researcher must take while conducting their

study. Confidentiality for the participants will be met by using pseudonyms for their

names as a coding system. According to Burkholder et al., (2016), respecting the

autonomy of those who volunteer to participate in a study is another ethical procedure

that a researcher should always maintain. These ethical procedures will be maintained in

the study by making sure all participants are given full disclosure of the nature, purpose,

and guidelines of the study. Furthermore, other ethical procedures that will be discussed

with the participants as they pertain to the study are informed consent, possible risks and

benefits, restrictions on access to data, and participant confidentiality.

To maintain ethical procedures and confidentiality all participants will be notified

ahead of time that all interviews are voluntary. Informed consent (Burkholder et al.,

2016) allows for there to be ongoing communication of information between the

researcher and participants. Likewise, informed consent helps the participants by

requiring the researcher to gain their permission (Freire et al., 2020) to participate in the

study thus providing them with a stronger understanding of their individual rights

(Burkholder et al.). To address this in the study, during the recruitment process all

potential participants will be provided a consent form (Appendix B) so that they can learn

more about the study. This will also provide potential participants the chance to

determine whether this study is one that will be beneficial for them. Participants that do

not object to the details presented in the document will be asked to sign the form to

establish their agreement to participate in the study. Although participants agree to be

part of the study, they will be informed that at any time before, during, or after the

interview they will still have the opportunity to withdraw from the study. Should

withdrawal of any participant take place during the analysis of the data, all transcripts and

coding information on that participant will be removed from Google Docs and NVivo.

To ensure that confidentiality is met during the treatment of the data, several

procedures will be used so that the ethical credibility of the study is strengthened. To

protect the identity of the participants (Panos et al., 2021), pseudonyms will be used as a

coding system so that privacy and security concerns can be met. All paper data collected will be placed in a locked file cabinet that the researcher will only have access to. Furthermore, all data collected on digital recordings will be protected by a password on my computer to ensure that confidentiality is met. After my dissertation gets approved, I will keep all of the files and data collected for a period of five years per Walden University's mandate. After five years, all paper data will be destroyed, and all data collected electronically will be deleted permanently from the computer.

Summary

The research design for this study is a basic qualitative design. I chose this design based on its alignment with research questions and conceptual frameworks. In addition, my role as the researcher required me to be the data collection instrument. The methodology that I used for my study was recorded interviews from a purposeful sample of early childhood special education teachers in a local school district. Data from recorded interviews were analyzed using first and second-cycle coding. Chapter 4 includes results of this study. Furthermore, data collection and data analysis strategies are also discussed.

Chapter 4: Results

The purpose of this basic qualitative study was to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. The research questions that guided this study were:

RQ1: What are perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents?

RQ2: How do perspectives of K-2 teachers of children with disabilities regarding using AT affect decision-making processes when writing IEPs with parents?

I recruited participants by partnering with a local rural school district where designated early childhood special education teachers work. After receiving IRB approval, I recruited potential participants. Principals in the school district were given flyers showing district approval to obtain permission to speak with potential participants. Flyers and consent forms were given to potential participants to gauge their interest in participating. All interested participants signed hard copy consent forms that I obtained from participating schools. Participants also provided email addresses as a means of contact for Zoom meetings.

Participants were given several different times to choose from for interviews. Once times were agreed upon, Zoom meeting invitations were sent. One day before scheduled meetings, I sent participants reminders via text messaging. Upon conclusion of Zoom meetings, audio recordings were transcribed using Kaltura. Once data were transcribed, I used open coding to identify themes to answer research questions. In Chapter 4, I present study results. This chapter also includes a discussion of the study's

setting, participant demographics, data collection and analysis methods, and evidence of trustworthiness.

Setting

Recruitment for the study was affected by having to receive approval from the IRB for a new partner organization after the first selection denied my application to conduct research in its district. This change also presented a second recruitment issue. The Thanksgiving holiday and winter break affected the study by delaying the recruitment process from November until January, when school was back in session. I went to schools in the district and presented recruitment packages that consisted of letters to the principal, recruitment flyers, and consent forms for potential participants. All participants were required to have experience working with children with disabilities, have 3 or more years of classroom experience, have experience with writing IEPs, teach in grades K-2, and have a working knowledge of AT. Eleven general and special education teachers agreed to participate and signed consent forms. Times of interviews varied, with some taking place in the morning, while others took place in the afternoon or evening depending on participants. To ensure confidentiality, all participants were assigned alphanumeric codes such as P1 to conceal their identity from anyone other than me. Each participant participated in one interview via Zoom.

Demographics

I conducted this study at a school district in a rural area of California. In this school district, students with disabilities represent 13.2% of the total student population. Years of experience of teachers in the district ranged from 2 to 14 . All teachers were

licensed and held bachelor's degree; however, of this population, only 83.7% were

credentialed in the subject they were teaching. All participants worked with K-2 children

with disabilities and had a working knowledge of AT. Participants were also experienced

with writing and IEPs and had 3 or more years of classroom experience (see Table 1).

Table 1

Demographic Profile of Participants

Participant	Knowledge of AT	K-2	3+ Years Experience
P1	Y	Y	Y
P2	Y	Y	Y
P3	Y	Y	Y
P4	Y	Y	Y
P5	Y	Y	Y
P6	Y	Y	Y
P7	Y	Y	Y
P8	Y	Y	Y
P9	Y	Y	Y
P10	Y	Y	Y
P11	Y	Y	Y

Data Collection

I collected data for this study from 11 participants. The tool used to collect data

was the researcher-created interview protocol (see Appendix D). Audio-recorded Zoom

meetings took place from October 27, 2023 to February 24, 2024. All interviews were

scheduled with participants at the time of receiving signed consent forms. During

interviews, an introduction was first read to participants explaining specific the study and

interview process. This included topics such as my role as the researcher, purpose of the

study, participants' rights, and confidentiality requirements. All participants were asked

nine open-ended questions with several followup questions.

. Out of all interviews, only one participant needed to reschedule due to forgetting the time. Interviews lasted on average 35 minutes, with the longest interview lasting 47 minutes and 37 seconds. Of the remaining participants, although several questions had to be repeated for clarity purposes, all questions were answered.

Once interviews were completed, participants were thanked for taking time to participate in the study. I explained to each participant that once data were analyzed, I would send them emails with summaries of their interviews for them to review so they could verify how well I captured and identified their thoughts and views regarding their experiences.. All completed interviews were then saved on my password-protected computer and transcribed using Kaltura. All interviews were transcribed verbatim from audio using Microsoft Word. While conducting interviews, I took notes which I later transferred to a reflective journal where I tracked my thoughts, opinions, and biases so I was able to keep interviews as objective as possible. Reflective journal are kept in a locked file cabinet. Alphanumeric codes instead of pseudonyms were used to conceal identity of participants. Throughout the data collection process, no unusual circumstances were encountered.

Data Analysis

At the time of each interview, all eleven participants were asked the same open-ended interview questions. All eleven interviews were transcribed using Kaltura. Once completed, I reviewed each line of the transcripts for accuracy. This process was completed by reviewing each line of the transcripts while listening to the audio recordings and making changes to the transcript as needed. It was during this process that

I became familiar with the data. Once all transcripts were checked for accuracy, I used an inductive approach to analyze the data and create themes. This approach included (1) becoming familiar with the data, (2) using first and second-cycle coding, (3) creating themes, and (4) developing a report (Saldana,2016). Throughout the data collection and analysis process, I did not encounter any unusual circumstances.

Step 1: Familiarizing Myself with Data

I began familiarizing myself with the data by checking to see if each transcript was accurate with the audio recording. Each transcript was then saved on my password-protected computer. All participants were given an alphanumeric code (ex. P1, P2, P3) to protect their identities to ensure confidentiality was met. Once I completed timestamping each transcript to correspond with its audio recording, I checked each transcript for errors by rereading each one and making necessary corrections. I then began to create codes in the margin of the transcripts that emerged from the data. To organize the data, I created a chart in Microsoft Word using the comments tab to display the codes. The chart displayed four columns, comments, codes, categories, and themes.

Step 2: Generating Process Codes

Once I became familiar with the data, I began the first cycle of coding. During the first coding cycle, I used process and initial coding. In using process coding, I was able to describe the actions of the participant's responses. Initial coding allowed me to find similarities in the data. I reread the transcripts and began labeling and organizing comments from participants to look for any statements that would be relevant to my research questions. A list of codes was created in Microsoft Word and grouped according

to the participant's responses to the interview questions. Phrases were highlighted and labeled using various colors to organize each code. The colors include yellow, light blue, pink, red, green, light grey, dark yellow, dark grey, and violet. The codes in yellow represented AT, codes in light blue represented procedural use, codes in pink represented AT implementation, codes in green represented advantages of using AT, codes in green represented challenges/barriers with AT, light grey represented the right type of AT to use, codes in dark yellow represented the decision-making process, codes in dark grey represented parent's during the decision-making process, and codes in violet represented parents role with AT. Table 2 shows examples of codes found, participants, and data representation of the code. While all interviews questions are represented, all codes are not represented in Table 2.

Table 2

Example of First Cycle of Codes

Codes	Participant	Example
Finding it useful	P1	"I would say it's definitely needed"
	P7	"I think assistive technology is crucial in educational settings"
Using assessments	P3	"As an AT person, when called to evaluate a student, we would check three things. We would check their reading, we would check the writing, and we check their listening skills"
	P5	"So, the child would need to go through an assessment"
Addressing students goals	P10	"I have to make that clear in their goals"
Helping students with progress and achievements	P2	"when I say appropriate for that student, that student is able to progress and make achievements through using the assistive tech device"

Raising performance levels	P1	"If I know that I'm able to give them these tools to help them excel and I'm investing in their education and into their interests, they usually will perform better" "they won't feel different"
Building confidence	P9	
Establishing better communication	P5	"the hope is that this will help to create greater communication"
Making disability less obvious	P11	"helps the disability seem less obvious"
Establishing fairness	**P4**	"It benefits them in the classroom because it's providing the equity"
Improving interactions with teachers/peers	P6	"If they can't express themselves, how do they interact with their peers and with the teacher"
Lacking training	P8	"Also, I guess training for all of our teachers so that they're comfortable with the implementation
Lacking accessibility or time	P11	"I'd say accessibility ability or time"
Offering training to parents	P3	"I always offer training or consult with the parents so they can come in at a particular time"
Contributing valuable insight	P4	"Their input, their suggestions, their thoughts, It's all important when you're developing that IEP.

After completing the first cycle coding phase, I then began the second cycle of coding. I reviewed the transcripts and codes again. Using the chart created in Microsoft Word, I began to identify similarities within the data to find connections to develop categories. After identifying similarities in the coded data, pattern coding was used to organize the similarities among the codes that were closely connected to the research question. Codes were reviewed and those that were similar were then merged to form broader categories. This process was continued until all the codes were organized based on their similarities. I then applied a color code to each of the categories as they were

created to make identifying them much easier. Table 3 displays eight process and initial

codes and how they fit into two of the seven created categories along with the

participants and examples from the data. This table represents a summation, thus not all

code to categories are represented.

Table 3

Example of Codes and Categories

Code	Category	Participant	Example
Finding it useful	K-2 teachers' perspectives on AT and their comfort level while using	P1	"I would say it's needed"
		P5	"I think that assisted technology can be good for children depending on how it's used"
		P9	"I work a lot with assistive technology, with my students, with disabilities"
Benefitting for Students		P7	
		P2	"I think assistive technology is crucial in educational settings"
			"Assistive technology is beneficial for students who require various services to help meet their needs"
		P8	"I believe that assistive technology helps all students in accessing their education"
			"Oh, I'm very comfortable"
			"I feel fairly comfortable"
Feeling comfortable			"Pretty comfortable"
		P1	"Oh, I'm super comfortable"
		P2	"It all depends on what type of assistive technology we're talking about"
		P3	
Depending on type of AT		P11	
		P8	
Using assessments	K-2 teachers' perspectives on deciding what best serves the needs of the child with disabilities [Varied]	P3	"we do assessments"
		P4	"doing the assessment"
		P9	"It still goes back to those assessments"
Addressing student's needs		P1	"I just know that certain things are usually like they are always a hit with students"
		P4	"finding out what the student needs"
		P9	"And every child has a different, what they need to access is different and so the tool has to match the need"
Making observations		P8	"Observation and understanding of where they have limited access"

	P10	"teacher observations. There's also admin observation. There can also be sometimes behavioral observations"
Varying your approach	P6	"I'm going to refer them to the expert so they can determine what assistive technology would be best for that student"
		"So sometimes you have to bring in related service providers or someone just to pick their brain about, hey, is there anything I can do for this"

Pattern coding assisted me in identifying categories that connected with my RQs. This was accomplished by taking the recurring patterns found and grouping them. Then I examined the data to learn how well the categories created aligned with the RQs. While examining the codes for discrepancies, none were found.

Step 3: Creating Themes

Once the coding and merging of the data was completed, I began reviewing the categories created during the pattern coding process to assist in identifying themes (see Table 4). To successfully interpret the data, an inductive analysis was used while transitioning codes into categories. I then looked for emerging themes from the data. As themes emerged, I then re-examined the data to better improve on the emerging themes. While examining the data, I reviewed the categories four times to ensure that each theme had an appropriate representation. All themes were closely examined with the research questions, to determine how well they answered the RQs: What are the perspectives of K-2 teachers of children with disabilities about using assistive technology when writing the IEP with parents? How do the perspectives of K-2 teachers of children with disabilities

about using assistive technology connect to the decision-making process when writing

the IEP with parents?

The four themes that emerged from the data are: (a) K-2 teachers of children with

disabilities believe that AT is a tool that they feel comfortable using; (b) K-2 teachers of

children with disabilities believe assessments and assessment tools help with performance

and communication, while accessibility and availability slow the IEP process; (c) K-2

teachers believe IEP decisions based on assessments are essential in addressing the

students' needs making monitoring the progress of their work easier when working with

parents; and (d) K-2 teachers believe IEP decisions based on assessments are essential in

addressing the students' needs making monitoring the progress of their work easier when

working with parents.

When discussing their views on AT in the educational setting, K-2 teachers

believed that AT was a necessary option they felt comfortable using when making

considerations for what will best meet the needs of the child with disabilities. For

example, six of the participants provided descriptions that detailed how depending on the

way it is used AT gave children with disabilities easier access to education as well as

being able to address different learning abilities of children with disabilities. P7 noted, "I

think assistive technology is crucial in educational settings, especially for those who have

special needs that need to access assistive technology in order to access their education.

So, I think it's crucial." P4 stated, "So, my thoughts are, it's definitely needed, it's a

needed tool just because of the different learning styles of every student that is in that

special population. And as long as we can give them equity, we're moving in the right direction." P8 stated,

"I believe that assistive technology helps all students in accessing their education. It allows them to more easily say what's in their minds and to express their knowledge."

P5 shared, "Okay. Well, I think that assisted technology can be good for children depending on how it's used."

When discussing their level of comfort with using AT, nine of the participants stated being very comfortable, very capable, and comfortable as long as they are familiar with the AT they are using. P2 shared, "I feel fairly comfortable, I'm comfortable with those things but there are things that they're always coming out with that, you know, I would need to be familiarized with." P1 shared, "Oh, I'm very comfortable. I am very capable." P4 noted, "I feel very comfortable. I've seen a very large pendulum swing in regard to system technology." It is important to note that two K-2 teachers out of the eleven interviews, however, had difficulty with using AT. P5 noted, "I think that it's difficult at times because some assistive devices aren't always programmed well for a student, if a device is programmed well for a student then I think they can be helpful." P6 shared, "It's never been something that I felt totally comfortable with, never felt like I had the knowledge to really help the students."

When it came to determining procedures to use for AT, nine K-2 teachers expressed various methods and approaches to the way they use assessments and assessment tools. P1 shared, "When you assess the students, you try to do it in more than one way. Not just like you do it visually, auditorily, and kinesthetically." P3 noted, "As

an AT person, when called to evaluate a student, we would check three things. We would check their reading, we would check their writing, and we check their listening skills." P5 shared, "So, the child would need to go through an assessment… a speech assessment to see how much receptive and expressive language he had and what his intelligibility is." Two K-2 teachers used specific types of assessment procedures and offered details on how they are used to provide information on children with disabilities. P9 stated, "I do a functional vision assessment and learning media assessment, FVLMA, that helps me understand what their primary learning media is." P8 shared, "Well, I use the Wisconsin Assistant Technology Inventory or the acronym the W.A.T.I. I also use the SETT, which is the SETT, I use both of those questionnaires and then observation to look at how the student is accessing."

K-2 teachers when discussing the advantages of using assessments and assessment tools for AT implementation placed a strong need for raising performance and communication. Six participants articulated that assessments and assessment tools help to create plans that support the educational progress and achievements of children with disabilities. P1 shared, "If I know that I'm able to give them these tools to help them excel and I'm investing in their education and into their interests, they usually will perform better." P2 noted, "When I say appropriate for that student, that student is able to progress and make achievements through using the assistive tech device." P4 stated, "If you know every answer to every one of those factors, then you can help devise a plan that's going to help that student achieve their goals." Five of the participants described how assessments

and assessment tools help them understand if there are improvements in how well children with disabilities communicate and collaborate with others in the classroom.

P5 noted, "Hope is that it would help increase their level of communication and decrease their frustration, but that's not always the case." P11 shared, "Communication and relationships and collaboration to me is a huge part of how assistive technology and any accommodations work." P7 shared, "Then we would write a goal in that area of need, addressing how that student is going to be able to communicate their answers and responses in the classroom."

K-2 teachers when describing challenges/barriers, viewed accessibility and availability equally as an area in need of more support. Participants explained that getting services, devices, and textbooks is important discussions held when determining the type of AT to use when writing the IEP with parents. P2 shared, "Getting the services or the device that you would need for a student." P4 noted, "Accessibility of textbooks." P8 stated, "How to increase accessibility for all students, not just the ones that have the IEPs." P1 shared, "I would just say access to it for sure." In response to availability, participants responded that roadblocks that take place are weighing the necessity of AT, the cost of AT, or not offering it to children with disabilities in their IEP. P5 stated, "I think a barrier is assistive devices aren't always available." P11 shared, "I think that's one of the disadvantages is sometimes it's not considered necessary, or it gets forgotten or it's not available." P1 noted, "So, like some of the roadblocks is having the availability of it." P2 shared, "A barrier might be that whoever is servicing the student is not giving them what is on the IEP." P6 stated, "They're not always available and sometimes districts

don't always want to spend the money that it'll cost to make it available." Please note that there was a narrow margin of K-2 teachers' perspectives between lacking accessibility/ lacking availability and lacking training/lacking knowledge of how to use AT.

K-2 teachers explained how notes, documentation, reports, and trial and error are important steps when finding ways to monitor the progress of children with disabilities. P3 shared, "Like I said, we do assessments, a lot of trials, a lot of error." P4 stated, "Doing the assessment, finding out what the student needs, giving them opportunities to try various pieces of assistive technology." P9 noted, "It still goes back to those assessments." P2 stated, "Progress notes, documentation that I have taken that says whether they are making progress or not. When you get to report card time, sharing that information with others." P5 shared, "We do progress reports, and then, you know, annual testing."

Four K-2 teachers spoke of using various forms of observations and other approaches to make decisions in the IEP based on the assessments and assessment tools they use. P8 shared, "Observation and understanding of where they have limited access." P10 stated, "teacher observations. There's also admin observation. There can also be sometimes behavioral observations." P7 noted, "So sometimes you have to bring in related service providers or someone just to pick their brain about, hey, is there anything I can do for this." P6 shared, "I'm going to refer them to the expert so they can determine what assistive technology would be best for that student." Perspectives varied among K-2 teachers, therefore the information provided merged into one theme that supported assessments.

K-2 teachers viewed monitoring the progress of students as an important decision. When discussing their views, seven of the participants revealed asking questions such as is the student feeling comfortable, and becoming successful in the classroom as how they determine how well they are progressing. P2 stated, "See if the student is making success. If they're making gains." P5 noted, "You want to make sure that first of all, you made the right choice and that it's helping the student." P11 shared, "Is the student feeling more comfortable." P8 stated, "Because that's the only way that you're going to know that the students are able to if it's being successful or not."

K-2 teachers placed a high importance on the need to educate and build relationships with parents. Seven of the participants mentioned how offering training, consultation, and honest input before any decisions are made as essential components that support parent involvement and may minimize barriers from occurring. P6 noted, "You know, I try to educate parents as much as I can." P3 stated, "I always offer training or consult with the parents so they can come in at a particular time." P2 noted, "Being open and honest and using my professional opinion to best give information to the parents." P7 shared, "We want to educate them as to why we're using this particular equipment and what this particular equipment does for them. So, it's good for them before they leave to have an understanding." When discussing relationships, P11 shared, "I can't really think of any parents who have not been on board because of the way we approach it." P9 stated, "I've never had any barriers or relationships with parents that got in the way of me getting their students access." P4 stated, "Building that relationship with the parents prior to what you're even doing is extremely important."

K-2 teachers placed parents in high regard when discussing the role of parents when writing the IEP for AT use. When discussing the insight that parents offer, nine of the participants provided various descriptions of how their suggestions, concerns, and information about their child offered valuable insight. P4 stated, "Their input, their suggestions, their thoughts, It's all important when you're developing that IEP." P1 shared, "The parents should have a say so on how their kids are learning and what their kids are learning." P11 shared, "You want them to totally understand it and also give their opinions about it." P3 noted, "The role is really in the IEP is to let us know their concerns, what they feel their child needs." P2 shared, "Parents should be informed, and they should be able to speak to what they feel could help their child in the school setting." Please note that while there is no consistency among the K-2 teachers, codes developed into categories centered heavily on providing valuable insight.

K-2 teachers hold the value of the role of parents on the IEP team in high regard. While explaining the value, seven of the participants discussed how they see the role of parents as extremely valuable and also viewed parents as being the most important person on the IEP team. P7 stated, "Oh, the parent's role is very valuable. Extremely valuable." P11 noted, "Oh, it's huge. I think they're, I think it's the most valuable." P9 shared, "I think they're the most important team member." P4 shared, "500% If you don't have full buy-in from the parents, you don't have buy-in." Table 4 displays five categories and three themes identified through the use of inductive analysis. This table represents a summation, thus not all categories and themes are represented.

Table 4

Examples of Categories and Themes

Category	Themes
K-2 teachers' perspectives on AT and their comfort level while using. Finding it useful Feeling comfortable	K-2 teachers' of children with disabilities believe that AT is a tool that they feel comfortable using.
Procedures K-2 teachers use and factors they consider for AT implementation. [varied] Using assessments Using assessment tools K-2 teachers' perspectives on advantages and challenges/barriers of AT when writing the IEP. Lacking accessibility Lacking availability	K-2 teachers' of children with disabilities believe assessments and assessment tools help with performance and communication, while accessibility and availability slow the IEP process
How K-2 teachers address challenges/barriers to AT implementation with parents. Educating the parent Building relationships K-2 teachers' perspectives of the role of parents in the decision-making process. Valuing their position	K-2 teachers' believe IEP decisions based on assessments are essential in addressing the students' needs making monitoring the progress of their work easier when working with parents.

Step 4: Developing the Report

The final step after completion of my data analysis was to write up a report that provided information on the themes and final results. After examining the data, I determined that four themes answered the RQs. During the data analysis, I continuously examined the data to determine whether there were any discrepant data. After examining and reviewing, no discrepant data was found. The four themes that emerged from the data helped to provide answers to the RQs on teachers' perspectives of using assistive technology when writing an Individual Education Plan with Parents.

Evidence of Trustworthiness

In a qualitative study, credibility, transferability, dependability, and confirmability are areas that a researcher uses to establish trustworthiness (Burkholder et al., 2016). In this study, trustworthiness was achieved by presenting a detailed description of the data from the interviews, notes from reflective journaling, member-checking, and peer debriefing. To assure trustworthiness, a qualitative expert who works as a Director of Education and Programs in the western region of the United States, reviewed and examined the data collection and analysis process to ensure credibility. In addition, interview questions were also reviewed to determine content validity. Finally, the data summary was reviewed by the expert to check for biases and confirmation of the

findings. Ravitch and Carl stated that a researcher should create conditions that allow others to examine their study at different stages so that they can provide different perspectives regarding the views of the researcher, their research process, and data interpretations (2016). Thus, the use of an expert reviewer established the trustworthiness of this study.

Credibility

Credibility offers the researcher the opportunity to describe the process by which the data was properly examined and portrayed (Burkholder et al., 2016). This is accomplished by ensuring that during the interview process, the data and the experiences of those who participated are accurately explained. Merriam and Tisdell recommended the use of note-taking in a reflective journal as a source of documentation that I could refer back to as needed. I used a reflective journal and kept notes on a notepad (2016). These notes were used to track any moments that I felt stood out as I conducted the data analysis. Creswell (2017) and Poth suggested the use of member checking as an efficient way for participants to examine the accuracy of their responses and provide their thoughts on the findings. After each interview, every participant was informed that I would email a summarized copy of the interview for their review and feedback. This allowed each participant to review the transcript and make corrections and/or suggestions that they believed were missed during the interview. Of the eleven participants to whom I sent copies of the transcripts, four acknowledged receipt; however, no participant made any further comments about needed changes.

Transferability

Transferability in a study is accomplished when details demonstrate how the information can be transferred or applied in other settings (Ravitch & Carl, 2016). In this study, I have provided a thick, rich detailed description of the data collection and data analysis process essential for achieving transferability. As a result, this allows other researchers to replicate and further research this in their environment. The detailed manner in which I discussed my process will also allow other researchers to make comparisons using similar research designs in different scenarios, and demographics (Burkholder et al., 2016).

Dependability

To ensure that the results of the data are dependable, researchers place a strong emphasis on there being consistent stability in the findings over some time (Ravitch & Carl, 2016). In addition, dependability requires exhaustive data collection processes to provide consistent documentation taken throughout the study. The recruitment process, data collection procedures, and data analysis methods used in this study are discussed in depth above. Furthermore, notes taken in my journal were examined to ensure that biases were limited to confirm dependability. I also worked exhaustively with my committee chair and methodologist to make decisions that would ensure that the design of this study would be a comprehensive and replicable study.

Confirmability

Confirmability is determined by how well others can verify and confirm the study's findings (Burkholder et al., 2016; Patton, 2015). Burkholder et al., (2016) also

stated that one method that can be used by a researcher is a confirmability audit. As I

recruited each participant, I informed them of my role as a childcare provider and former

work as a college professor in the field of early childhood education, in comparison to my

role as a student at Walden University. Throughout the data collection process, I

documented in a reflective journal all of my thoughts, concerns, and understanding of

each interview as I reviewed the data. Coding was also used in the study to establish

confirmability by describing the exhaustive steps taken as I repetitively reviewed the data

and the coding style that I used. As I coded the data, I created a codebook that I

constantly checked and rechecked while taking notes so that I could determine the

accuracy of the data while conducting my analysis.

Ethical Procedures

According to Sivasubramaniam (2021), there are several steps that a researcher

must take to ensure that they protect the rights, dignity, and well-being of those who

choose to participate in the study. First information provided to participants should be

presented in a manner that helps them to make informed decisions to volunteer for the

study. Secondly, all the participants' information collected by the researcher should be

kept confidential and maintained in a manner that they are not put at risk. Finally, all

potential participants who are part of the population of interest must be selected randomly

for the study. In this study, the informed consent form was reviewed and signed by the

participants at the initial contact and collected. At the beginning of each interview,

participants were reminded of the conditions of their voluntary participation and its

confidentiality. To also ensure that ethical procedures were followed, the informed

consent form also had a statement that addressed confidentiality as well as a statement that explained the "risks and benefits of participating in the study." In this study, all requirements within the consent form were strictly followed. Furthermore, these steps adhere to the strict guidelines set forth by the Walden University IRB department requirement of ensuring the protection of potential participants in a research study.

Results

This section includes responses from participants.

There were 11 participants in the study who were teachers from K- to second grade. Every K-2 teacher that participated did so voluntarily. During the process of data analysis, I created a codebook where I created codes, aligned the codes to categories, looked for themes that emerged, and matched those themes to the categories (Saldana, 2016). Table 5 provides an illustration of the alignment of the RQs and the emerging themes.

Table 5

Research Question Alignment with Themes

Research Question	Themes
RQ 1: What are the perspectives of K-2 Teachers of children with disabilities about using assistive technology when writing the IEP with parents?	K-2 teachers of children with disabilities believe that AT is a tool they feel comfortable using.
	K-2 teachers of children with disabilities believe assessments and assessment tools help with performance and communication, while accessibility and availability slow the IEP process.

RQ 2: How do the perspectives of K-2 Teachers of children with disabilities about using assistive technology connect to the decision-making process when writing the IEP with parents?	K-2 teachers believe IEP decisions based on assessments are essential in addressing the students' needs making monitoring the progress of their work easier when working with parents.
	K-2 teachers believe that educating and building relationships with the parents helps to address challenges/barriers to AT implementation due to their role and value on the IEP team.

RQ1

K-2 teachers believed that when writing the IEP with parents having AT be a part of the child's IEP was a viable option. This theme represents the perspectives of K-2 teachers 'regarding how useful AT is in the educational setting. K-2 teachers communicated that what makes AT crucial in the educational setting is how it helps address various learning styles as children with disabilities access their education. P8 stated, "By using assistive technology, all students now have access to their education, which aids their ability to express their thoughts and demonstrate their level of knowledge." P4 expressed,

"It's a very much needed tool, simply because it allows teachers to address different learning styles of students who are part of the special education population. By

placing it in the IEP, it provides equity for the students and further ensures that we are moving forward correctly."

When discussing the usefulness of AT in the educational setting, K-2 teachers noted that in some cases its value is based on how it will be used in the classroom. K-2 teachers mentioned that determining how AT will be implemented in the classroom is important when working with different types of disabilities children may have. Another explanation that K-2 teachers noted was how AT is a benefit for students in the classroom by offering different types of services. Also, K-2 teachers shared that this makes AT useful in two ways, it now helps to provide the students with access to their educational goals, while meeting their needs. Overall, nine out of eleven K-2 teachers stated that they see AT as a useful tool to be implemented in the classroom for their children with disabilities. K-2 teachers, however, used different descriptions when discussing the usefulness of AT in the educational setting. P11 noted,

"Okay. I'm very grateful for them. I feel like especially with early intervention, they're terrific to kind of be. Not so shame-based. I know when they start later in life then kids tend to, not necessarily always want to use them, especially like voice-to-text or text-to-read or whatever you call it. Because my kids really need it, but are almost ashamed to use it because they started older. I'm grateful that I've also experienced it with the early kids, my alarm earlier. The kids who used it when they were younger benefited so greatly that I felt like it helped their ability to learn to read faster when it's done as early as possible. I think it's best, especially those two that I was thinking voice to text and text to voice."

P1 offered, "Children have just moved to more of a digital platform. So, therefore, why not put their learning things online or in the digital platform to keep them interested? So overall, I am for technology in the classroom and outside for children, period. P3 stated,

"Since 2020 when Covid happened, we went to a one on one with the computer, Chromebooks. And that opened up the door for AT and helped implement AT, in the classroom for all students that needed it. Sometimes they did not think they needed it but found out that sometimes it would help them. I think it's an up-and-coming thing that's happening in the classrooms a lot these days."

P9 shared, " I work a lot with assistive technology, with my students, with disabilities." P5 relayed, "Well, I think that assisted technology can be good for children depending on how it's used. That, especially for children who are non-verbal, it could be a way to decrease their frustration and increase their communication."

It is important to also mention that two teachers believed that AT in the educational setting held a different meaning. P6 shared, "In the majority of the districts that I have worked at, Assistive Technology was kind of a specialty, so you had special people. So, if you had a student that you thought needed assistant technology, you would call the specialists and they would come in and assess that student and determine what would be the best assistant technology if they needed a technology." P10 noted, "I have dealt with the hard of hearing…when it comes to the hard of hearing, there has been some hearing needs that we've had to adjust. We've had IEP meetings to make that happen."

When discussing their level of comfort when working with AT in the education setting, K- 2 teachers described varying forms of their comfort with using AT. P1 stated, " Oh, I'm very comfortable. I am very capable." P4 expressed, "I feel very comfortable." P10 noted, "I feel pretty comfortable." P11 shared,

"Oh, I'm super comfortable. Yeah, I use it, sometimes I use it. I model it for my kids so that they can see how sometimes even adults with, you know, average abilities and stuff still use it to help them. I'm very comfortable And also I've been lucky enough to work in districts where there's an assistive technology, either like a specialist or somebody who has been able to assist."

Overall, eight of the eleven participants gave different descriptions of how comfortable they were when interacting with AT. It is important to also note three K-2 teachers found working with AT to be more challenging. P5 shared, "I think that it's difficult at times because some assistive devices aren't always programmed well for a student, if a device is programmed well for a student then I think they can be helpful. But more times than not, in my experience, it's been frustrating for both the student and myself." P6 noted, "It's never been something that I felt totally comfortable with, never felt like I had the knowledge to really help the students." P8 commented, "It all depends on what type of assistive technology we're talking about."

K-2 teachers discussed different reasons why they viewed AT as a useful tool in the educational setting that they feel comfortable working with. Some K-2 teachers when discussing the usefulness of AT indicated how it offers more ways to address different learning abilities of children with disabilities. Other K-2 teachers mentioned how the

access that AT implementation offers in the educational setting as being beneficial. K-2 teachers mainly indicated that using AT in the educational setting was something that they found to be very comfortable with. However, a small number of K-2 teachers in their encounters with AT felt more challenges made them feel less comfortable.

K-2 teachers believed that when writing the IEP with parents, assessments and the assessment tools used are important ways to monitor the performance levels of children with disabilities in the classroom. This theme reflected the procedures, factors, advantages, and challenges/barriers K-2 teachers addressed when to improve the performance and communication levels of children with disabilities. K-2 teachers discussed how assessments and assessment tools are important procedures they use. P7 shared, "We do an assessment to assess, you know, the need for the student to have assistive technology services." P5 noted, "So, the child would need to go through an assessment to see what a speech assessment to see how much receptive and expressive language he had and what his intelligibility is." P3 expressed,

"As an AT person, when called to evaluate a student, we would check three things. We would check their reading, we would check their writing, and we check their listening skills. We created our own assessment to hit on all of those three. Depending on the scores of those assessments, determine whether they needed AT equipment that needed to be dedicated to them and put in their IEP."

When discussing the assessment tools that they use, K-2 teachers used various types. P9 shared, " I have a Woodcock-Johnson for Academic Progress." P1 noted, "So, I was able to get really good results for my own assessments based on the video recordings

that I took." P3 stated, "The Snap and Read allowed us to test, to see if text being read to a person, are they able to understand it better being read to them, or does that increase their reading skills?" P8 shared, "I use the Wisconsin Assistant Technology Inventory or the acronym the W.A.T.I. I also use the SETT, I use both of those questionnaires and then observation to look at how the student is accessing."

K-2 teachers explained the use of assessments is an important procedure needed in correctly identifying the needs of a child with disabilities. K-2 teachers mentioned that identifying the needs of the child with disabilities ensures their ability to determine the appropriate AT when writing the IEP with parents. K-2 teachers also believe that the use of an assessment tool is beneficial in selecting the right type of AT to use. K-2 teachers expect that applying the appropriate AT will factor into how well they can monitor the progress of the child with disabilities. Ten of the eleven participants stated they use some form of assessment and assessment tool when writing the IEP with parents. The remaining participants (P10) shared they did not have the authorization.

K-2 teachers' views on the factors they considered important when writing the IEP with parents varied when it came to goals and accommodations for AT implementation. K-2 teachers discussed many different factors. P4 shared, "I look at the range of the disability, the cognitive level of the student that I'm working with, and also the academic level of the student." P2 stated, "I will look at, is it appropriate for the student? Is it attainable for the student? Is it something that you can write a goal about and achieve that goal?" P5 noted, "I think that the two biggest factors, consideration for

me are if the child is not able to communicate their needs or what they're trying to get across and they're functional communication with their peers." P6 stated,

"I guess the factors that would be considered are how the student is going to be using it in the classroom, and who's going to be working with that student and assisting them as they work with that technology."

K-2 teachers noted factors considered when writing the IEP with parents improve the performance levels of children with disabilities in several ways. K-2 teachers mentioned making the right considerations improves children with disabilities' communication and collaboration in the classroom among teachers and their peers. Secondly, K-2 teachers explained making the right considerations improves children with disabilities participation in the classroom. Finally, K-2 teachers expressed making the right considerations improves children with disabilities' independence and confidence levels in the classroom.

K-2 teachers' thoughts on the advantages of using AT in the educational setting when writing the IEP with parents centered strongly on describing how it increases the performance of children with disabilities. P1 shared, "So that is an advantage because they will perform if they know it's a computer game. They'll put more, I don't want to say love into it, but they put more thought into the decisions that they're making in terms of their education." P11 noted, "I feel like the advantages are, they help students to feel more supported. Because students can perform at a different level when some of the supports are there." P8 stated, "It assists the person in demonstrating understanding and

knowledge. In the classroom, it allows them to express their understanding and knowledge of the concepts that are being taught."P7 noted,

"The advantage of using assistive technology is that the student gains access to the curriculum. The student gains access to communication. It gives the students access to something, you know what I mean, for them to have an educational benefit. Access is what's important, that system technology should open up the door, or access to something necessary for them to be able to be educated."

K-2 teachers mentioned an increase in performance and better communication as being beneficial outcomes. K-2 teachers described these benefits in the following ways. K-2 teachers believed having access to items such as class materials helped them build more confidence. K-2 teachers explained by building up their confidence, children with disabilities displayed more results with their work. K-2 teachers also expressed how the more confident they became the greater their communication became in the educational setting. Nine of the eleven K-2 teachers described the advantages of using AT in the educational setting when writing the IEP with parents as focusing on increasing the performance of children with disabilities in the educational setting. It is important to note two K-2 teachers held a different view of the advantages AT brings in the educational setting when writing the IEP with parents. P9 shared, "There's a special factors page and there are actual references to the types of equipment that might be available." P10 stated, "providing more options for children with disabilities that they want."

K-2 teachers described how in the educational setting, accessibility to AT, and availability of AT are among the challenges/barriers to AT when writing the IEP with

parents. K-2 teachers expressed how being able to provide the services and materials children with disabilities need in the educational setting is crucial. P1 noted, "I would just say access to it for sure. And that can be a struggle because then they're going to feel they cannot do this without this tool." P2 shared, "Some challenges that I have run into are getting the services or the device that you would need for a student." P11 shared, "I think that's one of the disadvantages is sometimes it's not considered necessary, or it gets forgotten or it's not available." P5 noted,

"I think a barrier is assistive devices aren't always available, even though we make them part of an IEP. That doesn't mean that it's going to be delivered on time. So that's a challenge."

K-2 teachers mentioned the lack of accessibility or availability creates roadblocks that interfere with the children with disabilities' educational growth. K-2 teachers also stated the educational growth of children with disabilities is slowed down when they are given devices that are not appropriate for their learning. K-2 teachers explained time also becomes an issue when working with a child with disabilities in the educational setting. Among the initial and follow-up questions, accessibility and availability were expressed by five of the eleven participants. It is important to note training on AT and knowledge of AT were mentioned by four of the eleven participants. One participant (P4) mentioned time as a challenge, while another participant (P7) did not provide an answer.

RQ2

K-2 teachers believe decisions on what types of AT to use should always consider what best serves the needs of children with disabilities. This theme reflected K-2

teachers' views on how they approach making decisions on what type of AT they will provide children with disabilities in the educational setting. K-2 teachers explained using assessments helps with deciding on the right type of AT for children with disabilities. P4 stated, "I think after doing the assessment, finding out what the student needs, giving them opportunities to try various pieces of assistive technology." P9 noted, "It still goes back to those assessments, you know, the observations and interviews. Every child is different, what they need to access is different and so the tool has to match the need." P3 shared,

"We do assessments, a lot of trials, a lot of error. We just keep going. Whatever we have at our disposal, we use it with the child and just take the data. The data clearly shows that they need it. Then we try to implement what we can. We start with the low tech first and we go to the high tech. There is quite some data processing that we have to collect before we can assign it in the IEP to show that it's somewhat working or we think it should work from the little time that we have with the student to monitor them, to make sure that the AT that we're using on them is benefiting them, not just for entertainment purposes."

K-2 teachers noted addressing the types of AT that children with disabilities like is an approach they use in their decision-making. K-2 teachers explained how in some cases using AT that has worked before can be the answer. K-2 teachers mentioned by making observations, they are better able to determine the limitations of children with disabilities with certain types of AT. K-2 teachers shared observations from the data collected from assessments and assessment tools used are beneficial in decision-making

due to the various approaches they have available. Three K-2 teachers stated how they

vary the approach they use to make decisions for AT. P6 noted,

"I have not had to make that decision because I do not have that expertise.

Usually, when I work with the student, they come to me with that already in their IEP if I

determine that they need assistive technology, then I'm going to refer them to the expert

so they can determine what assistive technology would be best for that student."

P11 offered, "I have learned as I've gone along, what types of things have come

up, and generally like I said, that's a team decision." P7 stated,

"You can call in someone to give a consultation and say, hey, I'm not sure how to

help this student. This is what I'm seeing. Because I can't know everything about assistive

technology, right? I can't know everything about a psychologist's testing. You know, how

do we implement things that are not against the law, right, at school? So sometimes you

have to bring in related service providers or someone just to pick their brains. about, hey,

is there anything I can do for this? especially if it comes to assistive technology. Because

there may be other technology that exists."

K-2 teachers' descriptions varied with three teachers mentioning assessments,

three mentioning varying their approaches, three mentioning student needs, and two

mentioning observations. Despite the variation in the responses, the prevailing factor

described was centered around assessments, thus using assessments was used as the

theme.

K-2 teachers believed assessments helped in determining how beneficial the

decision-making process for AT was for children with disabilities. K-2 teachers described

how assessments improve their ability to monitor the progress of children with disabilities. K-2 teachers discussed how assessments allow for data to be reviewed weekly. K-2 teachers mentioned monitoring outcomes, scores on assessments, and reviewing and observing as methods used in the educational setting. K-2 teachers explained when using assessments they can monitor the performance level of children with disabilities to measure how well they are meeting their individual goals. P11 shared, "You would look at students' performance as well as I always look also at behaviors like is the student feeling more confident? Is the student feeling more comfortable?" P2 noted, "Progress notes, documentation that I have taken that says whether they are making progress or not. When you get to report card time, you can share that information with others." P1 stated,

"I do the assessment. So, like with Smarty Ants, they do a lesson every day, in the morning when I was student teaching. And at the end of the week, we would see if they leveled up. So, you can just see if they moved on because Smarty Ants was specific. Like you could not level up unless you mastered what you were learning. We would see that as the benchmark, so I'm seeing if they're repeating it. It tells you the level, how many times they're repeating the level, and what they're missing on the level. So, I'll be able to see the results on there."

K-2 teachers believed using assessments was an important decision which made monitoring the progress of children with disabilities in the educational setting easier. K-2 teachers discussed how tracking work is easier, which helps to see what gains children with disabilities are making. K-2 teachers mentioned staying informed about what AT is

working, its usage, and whether the AT is helping children with disabilities as important

factors. Furthermore, K-2 teachers stated it becomes easier to learn how well the

particular AT that has been chosen benefits children with disabilities, or whether another

AT device is needed. P5 shared, "You want to make sure that first of all, that you made

the right choice and that it's helping the student. So, we need to check in and see how

everything is working for that specific child." P4 noted, "Well, I think for me, because if

it's not benefiting the student, then we need to, re-evaluate, you know, what tools and

what offerings we're giving to the student. If it's not a benefit, then we've got to turn

around and find something else." P3 stated,

"So for example, if a student scored higher on an Assessment test of

comprehension. Because they use speech, I can show the data that they read at grade

level using text speech compared to when they read it on their own. Data like that,

coming into an IEP helps determine what AT will be used. It really shows that

technology can help the student and the parent appreciate seeing the numbers of the

benefit of using AT in IEP meetings."

Eight of the eleven participants specifically stated monitoring student progress as

their responses to the question and its follow-up. K-2 teachers' description of monitoring

is easier varied with no two K-2 teachers having the same response. Based on the

descriptions, the emerging theme was monitoring results is easier, which was then

chosen.

K-2 teachers believe decisions on what types of AT to use should always consider

what best serves the needs of children with disabilities K-2 teachers discussed how

assessments play an important role in how beneficial their decision-making is regarding AT in the educational setting. However, K-2 teachers' descriptions varied when discussing what types of AT best served the needs of children with disabilities. Some K-2 teachers indicated when making decisions using assessments, or observations is necessary. Other K-2 teachers explained how understanding the needs of children with disabilities and varying your approach by seeking outside support is important. K-2 teachers added they can determine how beneficial their decision-making was based on how well they can monitor the progress of children with disabilities. Overall, K-2 teachers shared how they stay informed by tracking work given to see how well it is helping children with disabilities in the educational setting.

K-2 teachers expressed challenges/barriers to AT implementation can be avoided in most cases by taking the time to build relationships and showing support to parents. K-2 teachers' responses to Question 8 varied. Seven of the eleven stated educating the parent helps address challenges/barriers to AT implementation when writing the IEP with parents. K-2 teachers mentioned how parents want to know, and providing any form of training is helpful. K-2 teachers indicated making suggestions about different types of devices is also a way to provide information to parents. P5 noted, "You know, I try to educate parents as much as I can." P7 shared, "We want to educate them as to why we're using this particular equipment and what this particular equipment does for them." P6 stated,

"I think just giving them information. Our goal, Is to help the student, To give them a means of communicating in class, and give them a means of interacting with their

peers. And so I think just explaining to the parents all along the process, keeping them involved and keeping them informed, I think that certainly helps with overcoming any hesitancy or reticence on their part."

Three of the eleven K-2 teachers described the importance of building relationships. K-2 teachers indicated providing support to parents first is an important step. K-2 teachers mentioned how informing parents lowers negative interactions that might occur when parents are uninformed. K-2 teachers indicated when the concerns of parents are addressed, this becomes helpful in overcoming barriers. P11 noted, "I can't really think of any parents who have not been on board because of the way we approach it."P9 shared,

"I've been really lucky. I've never had any barriers or relationships with parents that got in the way of me getting their students access. I've never been approached by a parent, who asked for something that we couldn't provide." It is important to note that the two remaining participants."

It is important to note the remaining participant P10 stated, "that being open and honest with parents in many cases will help them admit to AT services and devices that are needed for their child with disabilities."

K-2 teachers placed a high value on the role parents have in the decision-making process. K-2 teachers shared how they want parents to share their wants, concerns, and needs. K-2 teachers indicated that parents offer crucial information about their children they are not privy to. K-2 teachers explained this valuable insight presents the opportunity for a stronger IEP to be developed. By working together parents and teachers

also can address emotional challenges that may develop. P2 noted, "Parents should be informed, and they should be able to speak to what they feel could help their child in the school setting." P9 stated, "I think they're extremely important. I like to know what they do at home so that we can get an understanding from the parents of what the child's emotional touch points are." P3 shared,

"The role is really in the IEP is to let us know their concerns, and what they feel their child needs. Most parents come to the IEP saying I need this because my child cannot read. It's their input on what they feel about their child. It's the biggest thing also that a parent brings to the IEP Team."

All eleven participants indicated parents voicing their concerns was important during the decision-making process when writing the IEP for AT usage. K-2 teachers, however, provided different descriptions when explaining the way parents voice their concerns.

K-2 teachers described the role parents have on the IEP team as one that holds tremendous value. K-2 teachers mentioned they see parents as valuable team members. K-2 teachers indicated how the role of parents has influenced the actions of children with disabilities. P1 shared, "I think it is very important because a lot of times kids are, they think what their parents say is law. Usually, if the parent is saying no or is not invested in something, the student is not." P4 noted, "500% If you don't have full buy-in from the parents, you don't have buy-in." P7 stated, "Oh, the parent's role is very valuable. Extremely valuable. Because again, what's the point of us doing stuff here, and then they

go home and don't do anything." All eleven participants expressed valuing the position that parents held on the IEP team.

K-2 teachers believe parents provide vital information that benefits the decision-making process. K-2 teachers indicated parents can bridge the gap between them and the teachers when they are aware of the decision-making process making communication easier. K-2 teachers indicated as parents gain a better understanding of their child's academics, this also benefits the decision-making process. K-2 teachers mentioned transitions are easier to happen when parents are part of the decision-making process. P5 noted, "You'll see success where you didn't think it could happen when you have the whole family on board. And you'll see failure in a family that you thought it was going to work for because nobody got on board." P11 shared, "I think the parents benefit by having a stronger understanding of their child in academics and like the comfortable way that will help them to understand how to also support their child." P1 noted,

"They're in the know, so they know what's going on with their students, so there are no surprises because a lot of times as you meet with the parent and then three months later we'll be like, you can say, oh, this, your student is still not where they're supposed to be and then they're completely blind. But if they're aware of what their student is doing, there's less of a gap between the parent and teacher communication, and also parent and teacher expectations. If they're in the know, they feel more comfortable and then they're not usually blindsided by their students' inadequacies."

Based on the data from this study, K-2 teachers want parents to be involved in the decision-making process. K-2 teachers believe as important members of the IEP team,

parents provide vital information and insight. K-2 teachers also believe parents can keep the decision-making process running smoothly when they remain aware of what is needed for their child's success in the classroom. K-2 teachers acknowledge getting buy-in from parents is vital because they influence their children with disabilities. K-2 teachers' responses varied, however providing vital information was the central theme that emerged from the responses given by all of the participants. No discrepant cases were found during the analysis of the data.

Summary

This study involved perspectives of K-2 teachers of children with disabilities regarding using AT when writing IEPs with parents. Interviews with 11 K-2 participants were collected and analyzed, and resulted in four themes. Based on data, participants viewed use of AT as imperative for IEP writing. Feeling comfortable using AT, using assessment tools to help with performance and communication, addressing students' needs, and educating and building relationships with parents were themes. Participants expressed when writing IEPs with parents, making AT use essential benefited children with disabilities in classrooms. In Chapter 5, I include a discussion of findings. I also discuss limitations of the study and make recommendations for future research regarding this topic.

Chapter 5: Discussion, Conclusions, and Recommendations

In this basic qualitative study, I conducted thorough and detailed semi-structured interviews to explore perspectives of K-2 teachers of children with disabilities about using AT when writing IEPs with parents. I sought to gain an understanding of this population's perspectives about this topic. Interviews were conducted using Zoom with 11 participants. During my analysis, I created codes and categories from rich data to identify emerging themes. From interviews and analysis of data, I gained an understanding of this topic. Throughout the data collection process, objectivity was upheld as I engaged with participants and their responses to interview questions. To establish validity of findings, a data collection audit trail was used. In addition, once interviews were completed, all participants were provided with transcriptions of their interviews for review.

Four themes emerged from analysis of data: feeling comfortable using AT, using assessment tools to help with performance and communication, IEP decisions which address students' needs, and educating and building relationships with parents. Themes revealed how K-2 teachers of children with disabilities perceived use of AT in educational settings, factors that were considered for AT implementation, advantages, challenges, and barriers involved with using AT when writing IEPs, decisions regarding what best serves needs of children with disabilities, addressing challenges and barriers involved with AT implementation with parents, and roles of parents when writing IEPs. In Chapter 5, I address findings in connection with the literature review in Chapter 2 regarding this topic.

In addition, I address limitations of the study, recommendations for further research, and implications for social change. Finally, a conclusion is provided at the end of Chapter 5.

Interpretation of the Findings

Four themes emerged from data. Most participants found using AT in educational settings useful. AT is a service that the IDEA mandates teachers of children with disabilities to offer when writing IEPs with parents. No participants reported experiencing any form of discomfort or changes in their decision-making when writing IEPs due to this required mandate. Participants stated they saw AT as a useful option for IEPs that they were comfortable with offering.

All participants viewed AT as a useful option when writing IEPs with parents. P2 and P8 stated AT benefits children with disabilities. P3 described AT as a promising option. P6 claimed AT helps with student education. P4 described AT as not shamed based. P1 claimed AT presents the opportunity to "address different learning styles of children with disabilities." Atanga et al. (2020) suggested AT when provided in IEPs offers benefits that support teachers of children with disabilities in educational settings.

According to participants, AT is an essential component of the IEP writing process that fulfills requirements to meet needs of children with disabilities. I considered perspectives of K-2 teachers of children with disabilities using Piaget's constructivism theory , and Bandura's social cognitive theory . I concluded that AT was necessary to consider when writing IEPs with parents for educational growth of children with disabilities in educational settings.

In Chapter 2, I discussed Piaget's constructivism theory it pertains to how experiences shape understanding of environments .Participants described how their experiences using assessment tools aided their ability to make connections from information they obtained, adjust their thinking, and make necessary changes if necessary about what type of AT benefits children with disabilities when writing IEPs with parents. P1, P2, P5, and P10 mentioned their experiences with assessment tools provided them with the ability to determine how effective goals are, understand the range of a disability, learn what is attainable and appropriate, and determine the communication ability of children with disabilities. P1, P2, and P7 expressed how their experiences with assessment tools gave them an understanding of how offering right types of AT can lead to improvements in terms of performance levels, progress, and participation , while P3, P9, and P11 mentioned confidence, independence, communication, and collaboration. Participant demonstrated an ability to make modifications in terms of their knowledge development to maintain a constant state of equilibrium.

Chapter 2 also contained a discussion of Bandura's social cognitive theory . Participants expressed how personal, environmental, and behavioral interactions with students in classrooms influenced their decision-making about using AT when writing IEPs with parents. P1, P3, P5, P6, P7, and P11 claimed providing right types of AT led to performance increases, more communication, and increased confidence levels. P8 and P9 indicated access to materials and curriculum for children with disabilities were advantages that factored into their decision-making. All participants mentioned how

building relationships, being honest and truthful, and taking the time to educate parents are were components of their decisions.

In this study, I explored perspectives of K-2 teachers of children with disabilities about using AT when writing the IEP with parents. K-2 teachers of children with disabilities have the responsibility of meeting the IDEA mandates that require providing AT services to every child with disabilities when writing an IEP with parents. Based on the literature, K-2 teachers of children with disabilities are not consistently utilizing this option when writing the IEP with parents (Atanga et al., 2020). Many similarities emerged from the responses of the participants in this study, such as teachers' comfort level with AT, and the advantages of using AT, participants' responses differed in other areas and the way they connected with Piaget's constructivism theory of knowledge development and Bandura's social cognitive theory of reciprocal determinism.

The data from the interviews revealed that participants enjoyed making AT part of the IEP with parents, because of how well assessments and assessment tools help with identifying the needs of children with disabilities. However, some participants (5 and 6) mentioned AT as being "challenging and uncomfortable." Although assessments and assessment tools were viewed as an effective way to make necessary decisions for AT use, considerations for the implementation of AT varied. The participants viewed the advantages of using assessments and assessment tools as a great way to measure the performance levels of children with disabilities. The exceptions were four participants who viewed levels of communication as the advantage that assessments and assessment tools offered.

Accessibility and availability were the main challenges/barriers that participants noted as slowing down the decision-making process when writing the IEP with parents. Some participants (1,2,4,8,11) expressed that being able to provide the services needed increases much-needed time. Five participants (1,2,3,5,6) viewed delays as roadblocks that slowed down the decision-making process and implementation of AT when writing the IEP with parents. K-2 teachers of children with disabilities held different perspectives when it came to deciding what services suited the needs of children with disabilities best. Some participants focused on assessments and observations, while others focused on examining the student's needs and varying the methods they used. Participants agreed that the beneficial part of the decision-making process is being able to easily monitor the student's progress. For the most part, participants agreed that educating (1,3,4,5,6,7) and building relationships (4,9,11) with parents makes the decision-making process for AT use more effective.

A review of the literature revealed that teachers' perspectives on AT use in the classroom are complex. Almaki (2020) discovered that teachers have different perspectives when it comes to how they view the effectiveness of a particular AT device for a child with a disability. In this study, some participants' responses reflected that the type of AT being used plays a role in their decisions on its effectiveness, while others focused on assessments and assessment tools. In addition, some participants mentioned using different types of assessment tools to determine the effectiveness of the AT devices chosen. Farjon et al. (2019) suggested that teachers' perspectives on AT use are heavily influenced by their beliefs of its instructional value, their training levels, and their levels

of confidence working with AT (Alghamdi, 2022; Leatherman & Wegner, 2022; Ozcinar et al., 2020). As teachers examine the use of AT when writing the IEP with parents within these areas, the decision-making process should produce effective use of AT that will benefit children with disabilities in the classroom.

The responses of the participants reflected a sense of dedication and commitment to providing the best form of AT when writing the IEP with parents of children with disabilities. These responses extend the literature on teachers' perspectives of AT by providing insight into the way their experiences have shaped their view of using AT (Ghanouni et al. 2020; Kimm et al., 2020). In addition, the responses of the participants affirm literature that has discussed how teachers' perspectives of challenges/barriers they encounter shape their views on how well AT can be implemented (Lamond & Cunningham, 2020). Yet, the responses of the participants conflict with the literature that discussed how challenges/barriers influence teachers' perspectives of AT implementation to not offer AT as part of the IEP (Emerling et al., 2021; Kimm et al., 2020; Radici et al., 2019). It is important to note that in this study, none of the participants were asked about their hopes or ambitions; thus no responses reflected any.

Limitations of the Study

Several limitations were identified in this study. One limitation of the study was that it only sought the perspectives of K-2 teachers with 3 or more years of experience. While interviewing K-2 teachers with 3 or more years of experience, many indicated how their years of experience played a factor in how they made adjustments and decisions on using AT and its implementation when writing the IEP with parents. One area of interest

had to do with their level of comfort. K-2 teachers described how they felt very

comfortable using different types of AT. K-2 teachers also mentioned how they would

seek out guidance from others in moments when they felt overwhelmed. Likewise, K-2

teachers gave descriptions that detailed how they made adjustments for moments when

using certain assessment tools as they monitored how well children with disabilities

adjusted to the devices. Lazarus et al., (2022) discussed how it is important for teachers

of children with disabilities to be able to make appropriate decisions so that they can

ensure successful implementation of AT. Furthermore, K-2 teachers expressed how when

faced with challenges/barriers their experience has played a factor in being able to make

adjustments quickly. Targeting K-2 teachers with less than 3 years of experience might

have provided different perspectives. K-2 teachers with less than 3 years of experience

might have offered responses that reflected different adjustments and decisions made on

using AT and its implementation when writing the IEP with parents.

Another limitation of this study was the small sample size of 10-12 K-2 teachers

of children with disabilities from a rural school district in the western region of the

United States. The use of a larger sample size in this study might have provided a broader

perspective of K-2 teachers' thoughts on using AT and its implementation when writing

the IEP with parents. In addition, this study was limited to a rural school district in the

western region of the United States due to not receiving permission from the Lake

Mountain school district. Perspectives from Lake Mountain K-2 teachers might have

offered different views of their experiences of using AT and its implementation when

writing the IEP with parents. Additionally, this study was limited by its focus not being

centered on K-2 teachers of children with disabilities who work with specific types of disabilities. Focusing on K-2 teachers who taught specific types of disabilities such as speech, cognitive, hearing, learning, or autism, might have presented more detailed responses to the study. As a result, these limitations may create challenges for future researchers in their attempt to generalize the results.

Recommendations

The focus of this study was to explore the perspectives of K-2 teachers of children with disabilities about using AT when writing the IEP with parents to gain an understanding of the decision-making process. The following are some recommendations for future research that can be considered. The first consideration should be to expand the study to include K-2 teachers of children with disabilities from other areas of the country, including internationally. It is important to also note learning what motivates K-2 teachers concerning using AT when writing the IEP with parents. I also recommend that future research on the perspectives of K-2 teachers of children with disabilities about using AT when writing the IEP with parents should include criteria that address their educational background.

In the classroom, K-2 teachers of children with disabilities represent the general education and special education departments. Another recommendation is to focus on the perspectives general education K-2 teachers have in comparison with special education K-2 teachers when writing the IEP with parents. Creating an educational setting that addresses individuality when determining the needs of children with disabilities ensures their ability to find harmony in an inclusive environment (Karasu, & Yüksel, 2023).

Finally, another future recommendation to consider is to compare the perspectives of K-2 teachers of children with disabilities who work with specific disabilities, comparing how K-2 teachers who work with learning disabilities perspectives differ from those who work with cognitive disabilities when writing the IEP with parents.

Implications

AT is a service that offers children with disabilities opportunities to overcome obstacles that prevent them from reaching their full potential in the classroom (Kimm et al., 2020). The IDEA provided ways to address these obstacles in the classroom for children with disabilities by setting guidelines that ensured services they needed would be made available (Voulgarides & Barrio, 2021). Despite these guidelines that are in place, teachers of children with disabilities are still reluctant to provide the necessary AT services when writing the IEP with parents. Many studies have been conducted on the topic of teachers' perspectives of AT, however as discussed in the literature review, there is a gap in the research as it relates to teachers' perspectives (specifically K-2 teachers of children with disabilities) about using AT when writing the IEP with parents.

This study has discussed its limitations, however, it has also described how its implications can be beneficial to teachers of children with disabilities as they work on using and implementing AT when writing the IEP with parents. Administrators, decision-makers, and other experts may use the findings of this study to develop programs that work to support collaborative efforts among teachers, parents, and those who work to ensure the use of AT in the IEP for children with disabilities. Likewise, collaborative efforts may improve decision-making when it comes to addressing challenges/barriers

that prevent the implementation of AT or slow down the IEP process. In addition,

considering reviewing assessments, and determining effective assessment tools to review

the outcomes of children with disabilities will lead to better ways to monitor their

progress. The participants' responses in the study ranged from being dominant in some

areas to varying in others, yet provided insight into their thoughts and views about using

AT when writing the IEP with parents. Participants in the study wanted to find ways to

use and implement AT when writing the IEP with parents in a joint effort that benefited

and provided the child with disabilities an opportunity to succeed in their educational

journey. This contributes to the literature on teachers' perspectives on using AT and

offers recommendations for future research. Furthermore, this study provides details of

what practices may act as a motivator for teachers to want to collaborate about using AT

when writing the IEP with parents.

Conclusion

I collected the data for this basic qualitative study by conducting semistructured

interviews with 11 K-2 teachers of children with disabilities. Limitations to the study

were included in detail, and the importance of further research was addressed. K-2

teachers of children with disabilities reported that assessments and assessment tools are

vital components needed when writing the IEP with parents. K-2 teachers of children

with disabilities reported that the types of assessments and assessment tools that they use

help in the decision-making process when they need to determine what AT will best serve

the needs of the child with disabilities when writing the IEP with parents. K-2 teachers of

children with disabilities also reported that parents play a valuable role on the IEP team

making the decision-making process run smoother due to the insight they provide.

Piaget's Constructivism theory on knowledge development and Bandura's Social

cognitive theory of reciprocal determinism were used as the basis for determining the

perspectives of K-2 teachers of children with disabilities about using AT when writing

the IEP with parents. Participants in this study embraced a majority of the assumptions,

except for one assumption where a few participants had different levels concerning the

assumption. The study provided increased knowledge on the perspectives of K-2 teachers

of children with disabilities about using AT when writing the IEP with parents.

Furthermore, it also provided K-2 teachers perspectives on the decision-making process

about using AT that takes place when writing the IEP with parents.

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Appendix A: Email to Principals

Hello,

My name is Garland Voss, and I am a Ph.D. Candidate at Walden University, an

accredited institution of education. For my dissertation, I am conducting a basic

qualitative study that describes and explores the perspectives of K-2 Teachers of children

with disabilities about using Assistive Technology when writing the IEP with parents.

Based on the qualitative research design selected, interviews are needed to collect the

data. Your school has been selected because you have teachers that have a working

knowledge of assistive technology and writing IEPs. I am reaching out to schools in the

area with the hope of obtaining volunteers to participate in my study. Attached with this

letter you will find the approval letters of the IRB at Walden University and the research

review committee of the school district. Should you choose to have your school

participate in the study a letter of cooperation signed by you will be needed to serve as a

notification to teachers that your approval has been given for them to consider

participating in the study. This information can be returned by email, or I can pick it up at

the school. If you have any questions, feel free to email me at garlandvoss@hotmail.com

or call me at (951) 437-2110.

Thank you for your consideration.

Garland Voss

Appendix B: Email Invitation

Hello,

My name is Garland Voss, and I am a Ph.D. Candidate at Walden University, an accredited institution of education. For my dissertation, I am conducting a study that describes and explores the perspectives of K-2 Teachers of children with disabilities about using Assistive Technology when writing the IEP with parents. You have been invited to participate in this study because you are a K-2 Teacher of children with disabilities with a working knowledge of Assistive Technology use and writing an IEP.

Please read the attached consent form which will explain all of the responsibilities required if you choose to participate in the study. Please sign the consent form if you would like to participate. If you have any questions, feel free to email me at garlandvoss@hotmail.com or call me at (951) 437-2110.

Thank you for your consideration.

Garland Voss

Appendix C: Consent Form

My name is Garland Voss, and I am a doctoral student at Walden University. You are invited to take part in a research interview on assistive technology (AT) Titled *Teachers' Perspectives of Using Assistive Technology when Writing an Individual Education Plan with Parents*. You were chosen for the interview because you work with children with disabilities and have knowledge of AT and IEPs. It is important that you read the entire form and ask any questions you have before agreeing to take part in the interview.

Procedures:

An audio-recorded interview lasting approximately 60 minutes will be held should you agree to participate in the study.

The Interview Process:

All participation in the interviews for this study is strictly voluntary. This means that your decision to participate or not participate in the interview will be respected. This also means that should you choose to participate, you still can opt-out of the interview at any time. If you feel stressed during the interview feel free to ask to stop. Also, any questions that you feel are too personal may be skipped.

Risks and Benefits of Being in the Interview:

Participation in the interview may produce a small level of stress. If you feel stressed in any way during the interview, please feel free to stop. Participating in this interview produces no benefits for you. The interviewer will benefit by collecting data.

Compensation:

No compensation will be offered for your participation.

Confidentiality:

All information provided during the interview will be kept confidential. The researcher will only use your information for the purpose of this research study. Also, the researcher will not use any information including your name taken from the interviews that can identify you in any reports.

Contacts and Questions:

The researcher's name is Garland K. Voss. Researchers email: garlandvoss@ hotmail.com. The researcher's Committee Chair is Dr. Grace Lappin. Should you have any immediate questions or concerns you may contact the instructor at grace.lappin@mail.waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Director of the Research Center at Walden University. Her phone number is 612-312-1210. A copy of this form will be provided to you to keep by the researcher for your records.

Statement of Consent:
I have read all of the information of this consent form. All questions and concerns that I have were answered. I consent to participate in the interview.

Printed Name of
Participant

_____

Participant's Written or
Electronic Signature

_____

Researcher's
Signature

_____

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally,

an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

Appendix D: Interview Protocol

Introduction:

 Greetings and welcome, I would like to take a moment and thank you for deciding

to participate in my research. It is truly appreciated. Before we begin I just want to go

over a few details that are important. First, as a reminder, the purpose of this interview is

to explore the perspectives of K-2 Teachers of children with disabilities about using AT

when writing the IEP with parents. Should there be any question that you feel

uncomfortable responding to, please feel free to say so and we will move on to the next

question. Please remember that while the information needed for the study is important,

all information is on a volunteer basis. At any time before, during or after the interview

you have the opportunity to withdraw from the study. The time frame of this interview

should last no more than one hour. And finally, I would like to assure you that all

information that is shared today will be kept in complete confidentiality.

Icebreaker Questions
Where is your favorite place in the entire world and why?
What is the funniest thing that ever happened on a family vacation?
What would you name your own personal boat?

Interview Questions:

RQ1: What are the perspectives of K-2 Teachers of children with disabilities about using assistive technology when writing the IEP with parents?

1. So, as we begin what are your thoughts on assistive technology usage in classrooms?

   - Is it because you like helping children with disabilities?

   - How comfortable are you with using AT in the classroom?

   - How would you describe its value for children with disabilities?

2. When writing the IEP with parents, how do you plan on what types of assistive technology should be used?

   - Am I correct in saying that you feel this is an important step? How? In what way?

   - Please give me an/some examples?

   - What are the procedures you have followed?

3. What factors do you consider to be most important when planning for the implementation of assistive technology when writing the IEP with parents?

   - Do you feel these factors improve the implementation of AT? How so? In what way?

   - Please name a few of these?

   - Why are these factors important?

4. When writing the IEP with parents, what are the advantages of using assistive technology?

- Am I correct in saying you that you believe these particular advantages are beneficial for AT use? How so? In what way?

- How do these advantages improve the IEP?

- How do they benefit the child in the classroom?

5. When writing the IEP with parents, what do you see as challenges/barriers to AT implementation during the planning process?

- Is it true say that _____ influences AT implementation? How so? In what way?

- How do you address these challenges/barriers?

- Please give me an/some examples?

RQ2: How do the perspectives of K-2 Teachers of children with disabilities about using assistive technology connect to the decision-making process when writing the IEP with parents?

6. When writing the IEP with parents, how do you decide on what types of assistive technology will best serve the needs of the child with disabilities?

- Am I correct in saying that you feel_____ best serves the needs of the child with disabilities? How so? In what way?

- Please give me an/some examples?

- What types of AT do you prefer to use? Why?

7.   What factors do you consider are beneficial to the decision-making process for

successful implementation when writing the IEP with parents?

- Why do you consider these factors to be important?

- Am I correct in saying that you feel _____helps the decision-making

process for successful implementation of AT? How so? In what way?

- Are there ways for successful AT implementation be obtained without

these considerations?

8.   When writing the IEP with parents, how do you address challenges/barriers with

AT implementation during the decision-making process?

- Am I correct in saying that by not addressing _____ AT

implementation can be more difficult? How so? In what way?

- Please give me an/some examples?

9.   How would you describe the role of parents during the decision-making process

when writing the IEP for assistive technology usage?

- Am I correct in saying that parents play a valuable role in the decision-

making process? How so? In what way?

- How valuable is their role?

- In what ways would you say parents benefit the decision-making process?

- Please give me an/some examples?

- Are there ways that parents disrupt the decision-making process?

- Please give me an/some examples?

Conclusion:

This concludes the interview, thank you so much for your participation. Once I have completed analyzing the results of the interview, I will send you a copy by email. Please take a moment to review my findings for accuracy and send me any comments that you may have. The information that you provided will be helpful for my research and will offer insight into the early childhood special education field as a whole.